Max Perlès

advanced industrial linings

technical manual
energy

ELECTROPERL systems

Max Perlès

Technical Manual
Energy

Summary

Presentation

This new edition of our Energy Technical Manual comprises :

- Our technical system sheets :

These systems – made up of a number of different products – are part of EDF's "Fichier National Peintures" (FNP) .
They have been validated :

- technically , by EDF's CEIDRE/TEGG department
- for toxicology , by EDF's SCAST.

They cover coating applications :

- on metal, in the first part of this manual
- on concrete, in the second part of this manual , with « watertight « and « waterproof « coating systems .

To each EDF/FNP-model system sheet corresponds a MAX PERLES-model system sheet.
They are numbered .
They describe the practical steps in the implementation of each product within the system .

- In Annex 1 :

The individual Product Data Sheets

- In Annex 2 :

Our reference list. These references have allowed us to build up our technical and practical know-how and guarantee the performance and reliability of these coating solutions. .

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EDF-model system sheets

and the corresponding MAX PERLES-model system sheets

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Systems on metal substrates

Systems on metal substrates :

FNP number	System composition	EDF Codification - series and groups
311	ED1 Varnish + ELECTROPERL	PLA/PLB/PLD/PLE/PLF/PLH/PLJ/PLK 300/301
330	ED1 Varnish + LP100/512	PLA/PLB/PLD/PLE/PLF/PLG/PLH/PLJ 300/301 PLB/PLE/PLF/PLG/PLH/PLJ 303 PLA/PLB/PLD/PLF/PLH/PLJ/PLK 304
1006	ED1 Varnish + SV101	PLA/PLB/PLD/PLE/PLF/PLG/PLH/PLJ/PLK 300/301 PLA/PLD/PLF/PLH/PLJ/PLK 304

Note :

*In case of specific mechanical constraints, of severe chemical sollicitation or of a significantly degraded surface, the above systems can be reinforced with a glass fiber tissue, as is the case with the « waterproof « systems used on concrete . They are then termed « **Reinforced** » and carry the letter «* R *» after the standard codification number.*
*For example a **Reinforced*** PLJ 300 *is numbered* PLJ 300 R.

FNP n°311 :

ED1 Varnish + ELECTROPERL

Applies to :

PLA 300 301	PLB 300 301	PLD 300 301	PLE 300 301	PLF 300 301	PLH 300 301	PLJ 300 301	PLK 300 301

depending on specification

Technical datasheet N° *341* index: *11*

Date ***October 26, 2020.***

Manufacturer: ***max perlès et cie***
Address: ***BP 80439***
60119 Hénonville Cedex
Phone: ***+ 33 (0)3 44 49 86 22***
Email: ***contact@maxperles.com***

For contract : ***EDF's Fichier National Peintures : FNP 311***

Codes concerned :
PLA/PLB/PLD/PLE/PLF/PLH/PLJ/PLK 300/301

Name and signature of datasheet author:
François TAILLIBERT – Technical Manager

Date of Project Owner VSO (reviewed, no comments):

Name and signature of supervisor :
Franck MUTEAU – Chairman

Name and signature of VSO issuer :

SUBSTRATE	☒ STEEL and /or ☐ CONCRETE(*) and/or ☐ OTHER :	
PRODUCTS USED	Primer	Topcoat
Trade name	**ED1 Varnish**	**Electroperl**
Colour (RAL identification)	Not pigmented	Grey 7035
Dry-film appearance	satin	glossy
Optional or mandatory coat	mandatory coat	mandatory coat
1 – GENERAL CHARACTERISTICS		
Composition of mixture (%)		
Binder		
- type.....	Epoxy polyamide	Epoxy polyamine
- % by mass	46	72
Powder materials		
- type.....	none	Oxides + silicates
- % by mass	-	28
Solvent		
- type.....	Hydrocarbon/alcohol	None
- % by mass	54	-
Toxicity	See safety datasheet	
Flash point (°C):		
- Base	ED1 Varnish Base > 25°C	Electroperl Base > 90°C
- Hardener	ED1 Varnish Hardener > 25°C	Electroperl Hardener > 90°C
Density at 20°C (Kg/l).....	0.95± 0.03	1.32 ± 0.05
Non-volatile matter by mass (%).....	48 - 52	96 – 100
Non-volatile matter by volume (%).....	40	100
Storage temperature limits (min/max) °C.....	0 / 35°C	0 / 35°C
Storage humidity limits (%)	-	-
Storage time in original unopened packaging at 20°C.....	18 months	18 months
Thickness in use (µm)° ~~or consumption (g/m²)~~		600
- Minimum to seal film.....	20	150
- Maximum before sagging.....	40	800
Maximum service temperature (°C)	-	50
2 – APPLICATION PARAMETERS FOR RELEVANT USE		
Theoretical dry-film thickness for relevant application (µm)	30	600(*)
- Minimum tolerance	24	480
- Maximum tolerance	37.5	750
Practical consumption (g/m²)		
- Minimum/maximum	-	-
Theorical yield by volume (m²/l).....	13.3	1.67

(*) Possible application in 2 coats of 300 microns, the 2nd on top of the 1st one still tacky, or sprinkled with silica F15 at 400 g/sqm : see CCTR / SCW in application.

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Technical datasheet n° ***341*** index: ***11***

eDF

Date ***October 26, 2020***

PRODUCTS USED	Impregnation	Topcoat
3 – APPLICATION		
Atmosphere		
- Temperature limits (°C)	5 ≤ t ≤ 35	10 ≤ t ≤ 30
- Maximum humidity (%)	90	90
Substrate		
- Temperature limit (°C) (*)	5 ≤ t ≤ 45	5 ≤ t ≤ 45
Concrete substrate :		
- Maximum moisture content (%)	-	-
-pH limit	-	-
- CSP grade		
Steel substrate		
- surface condition	Sa3	-
- Max/min roughness (µm)	Mid G	-
Product :		
- Usage limit temperature for application (°C)	5 ≤ t ≤ 35	10 ≤ t ≤ 30
Mixing ratio and trade name of each part	☒Volume or ☒Mass	
- base % by mass	ED1 Varnish Base : 65	Electroperl Base : 75
- hardener % by mass	ED1 Varnish Hardener : 35	Electroperl Hardener : 25
Mixture usage conditions		
- Hardening time at + 10°C	None	None
- Maximum usage time after mixing at + 30°C.	5 hours	20 minutes
Recommended application method with % thinner used		
- Brush or roller	-	X without dilution
- AIRLESS gun	X 5% Thinner ED	X without dilution
- Conventional gun	-	-
4 – HARDENING / DRYING		
Drying time (20°C and 50% RH)		
- For dry film thickness of (µm)	30	600
- Dust free	0h20	3 hours
- Dry-to-handling	6 hours	8 hours
- Dry-to-recoat times (min/max)	12h/none	-
Time to maintain hardening conditions before entry into service at 20°C	-	7 days / 4 days- RH < 90%

5 - CLEANING OF DRY COATING – PRODUCTS USED

Conventional alkaline detergents.

6 – REPAIR METHODS:

☒ **General repairing on steel support**

Rebuilding of system to original state after cleaning of area to be repaired and grinding of adjacent areas. Please consult our technical advice nr.5 "Retouching"

7 - GROSS CALORIFIC VALUE:

For a total dry film thickness of 630 µm :

GCV value for the system = 24.5 MJ/kg

GCV product : ED1 Varnish = 34.1 MJ/kg - Electroperl = 24.6 MJ/kg

8 – COLORS NOT POSSIBLE WITHIN THE FRAMEWORK OF THE DECLARED PERFORMANCE

All, except those mentioned.

9 – PERFORMANCE OF COATING IN CONTACT WITH LIQUIDS

Results for liquid resistance trials are indicated in French comment files available on request.

(*) Substrate temperature must be 3°C minimum above the dew point.

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sheet ex.nr.311
Electroperl® 600µ, on Sa3 & ED1

Anti-corrosion protection

made of: single-layer solventfree epoxy

for: steel surfaces

in contact with: PLA *soil* - PLB : *calcifying raw fresh-water* - PLD : *demineralized water*
PLE : *sea water* - PLF : *hydrocarbons, oils* – PLH : *bases*
PLJ : *radioactive effluents* - PLK : *gases*

substrate: new steel *or* steel in good looking surface state (1)

Preparation as per Technical Advice nr 2 «Specification for preparation of steel», and as a minimum:

♦ Grinding	of barbs and welding projections until elimination, and of the weld beads and sharp angles for softening
♦ Blasting (2)	by any appropriate means to obtain equivalent to Sa 3 standard, with a Medium G or a Rt 50-75 microns profile
♦ Removal	of dust with industrial vacuum cleaner
♦ Application	while progressing and before any flash-rusting of one stand-by coat of solvent borne epoxy **ED1 Varnish,** 30 µm dry film, **100 g/sqm**,

Electroperl® *coating – thickness* 0.6 mm*:*

♦ Application	of **Electroperl®** : In 1 layer using airless spray 45/1 minimum, or roller with spalter smoothing, in 2 passes from 3h to 6h of interval, Theoretical consumption: **800 g/sqm** for **600 microns**,
♦ Checking	as per *Technical Advice nr.3* "Performance testing" and *nr.4* "Dielectric testing"
♦ Repair	of defects as per *Technical Advice nr.5* "Retouching"

Application conditions: In accordance with the rules of the art and the indications of our data sheets and technical advices.

A loss factor has to be added for practical consumption, **about 15%**, according to means and methods used.

Possible guarantee: 5 years

depending on the nature and temperature of the effluent
In accordance with Circular G37 of the OHGPI
This proposal is based on our XL n°FR00008519LI, products civil liability insurance policy "after delivery", within its terms and limitations
To become effective, it must have been formalised in a duly signed guarantee commitment certificate.

♦♦♦♦♦♦

(1) **This specification is for substrates within state C of the standard ISO 8501-1988 - page 15**:
• In the case of important corrosion where the state D is reached without however being exceeded, a specific rendering of the corrosion cankers is necessary with **Render AR100**, solventfree epoxy gel charged with silica.
• If corrosion exceeds the state D, the implementation of a structure of **Electroperl® reinforced with glassfiber** is necessary before the application of the topcoat **Electroperl®**.

(2) **In case of sweating of steel plates which contained oily products, observe 48 h delay after blasting.**
The emergence of brown stains must lead to a new blasting onto the affected areas until they disappear.

FNP n°330 :

ED1 Varnish + LP100/512

Applies to :

PLA 300 301 - 304	PLB 300 301 303 304	PLD 300 301 - 304	PLE 300 301 303 -	PLF 300 301 303 304	PLG 300 301 303 -	PLH 300 301 303 304	PLJ 300 301 303 304

depending on specification

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Technical datasheet N° ***343*** index: ***14***

Date ***October 26, 2020.***

Manufacturer: ***max perlès et cie***
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Phone: ***+33 (0)3 44 49 86 22***
Email: ***contact@maxperles.com***

For contract : ***EDF's Fichier National Peintures : FNP 330***

Codes concerned :
PLA/PLB/PLD/PLE/PLF/PLG/PLH/PLJ 300/301
PLB/PLE/PLF/PLG/PLH/PLJ 303
PLA/PLB/PLD/PLF/PLH/PLJ 304

Name and signature of datasheet author:
François TAILLIBERT – Technical Manager

Name and signature of supervisor :
Franck MUTEAU – Chairman

Date of Project Owner VSO (reviewed, no comments):

Name and signature of VSO issuer :

SUBSTRATE	☒ STEEL and /or ☐ CONCRETE(*) and/or ☐ OTHER :	
PRODUCTS USED	Primer	Topcoat
Trade name	**ED1 Varnish(*)**	**LP100/512**
Colour (RAL identification)	Not pigmented	Yellow 1017
Dry-film appearance	Satin	glossy
Optional or mandatory coat	mandatory coat	mandatory coat
1 – GENERAL CHARACTERISTICS		
Composition of mixture (%)		
Binder		
- type	Epoxy polyamide	Epoxy polyamine
- % by mass	46	63
Powder materials		
- type	none	Oxides + silicates
- % by mass	-	37
Solvent		
- type	Hydrocarbon/alcohol	None
- % by mass	54	-
Toxicity	See safety datasheet	
Flash point (°C):		
- Base	ED1 Varnish Base > 25°C	LP100/512 Base > 90°C
- Hardener	ED1 Varnish Hardener > 25°C	LP100/512 Hardener > 90°C
Density at 20°C (Kg/l)	0.95± 0.03	1.43 ± 0.05
Non-volatile matter by mass (%)	48 - 52	96 – 100
Non-volatile matter by volume (%)	40	100
Storage temperature limits (min/max) °C	0 / 35°C	0 / 35°C
Storage humidity limits (%)	-	-
Storage time in original unopened packaging at 20°C	18 months	18 months
Thickness in use (µm)° ~~or consumption (g/m²)~~		
- Minimum to seal film	20	300
- Maximum before sagging	40	1200
Maximum service temperature (°C)	-	(**)
2 – APPLICATION PARAMETERS FOR RELEVANT USE		
Theoretical dry-film thickness for relevant application (µm)	30	600
- Minimum tolerance	24	480
- Maximum tolerance	37.5	750
Practical consumption (g/m²)		
- Minimum/maximum	-	-
Theorical yield by volume (m²/l)	13.3	1.67

(*) Not used for group 304
(**) According to actual reagent. Please consult us.

PRODUCTS USED	Impregnation	Topcoat
3 – APPLICATION		
Atmosphere		
- Temperature limits (°C)	5 ≤ t ≤ 35	10 ≤ t ≤ 30
- Maximum humidity (%)	90	90
Substrate		
- Temperature limit (°C) (*)	5 ≤ t ≤ 45	5 ≤ t ≤ 45
Concrete substrate :		
- Maximum moisture content (%)	-	-
-pH limit	-	-
- CSP grade		
Steel substrate		
- surface condition	Sa3	-
- Max/min roughness (µm)	Mid G	-
Product :		
- Usage limit temperature for application (°C)	5 ≤ t ≤ 35	10 ≤ t ≤ 30
Mixing ratio and trade name of each part	☐Volume or ☒Mass	
- base % by mass	ED1 Varnish Base : 65	LP 100/512 Base : 50
- hardener % by mass	ED1 Varnish Hardener : 35	LP 100/512 Hardener : 50
Mixture usage conditions		
- Hardening time at + 10°C	None	None
- Maximum usage time after mixing at + 30°C.	5 hours	15 minutes
Recommended application method with % thinner used	Thinner ED	None
- Brush or roller		X (**)
- AIRLESS gun	X 5% Thinner ED	X (***)
- Conventional gun	-	-
4 – HARDENING / DRYING		
Drying time (20°C and 50% RH)		
- For dry film thickness of (µm)	30	600
- Dust free	0h20	3 hours
- Dry-to-handling	6 hours	11 hours
- Dry-to-recoat times (min/max)	12h/none	-
Time to maintain hardening conditions before entry into service at 20°C	-	7 days / 4 days- RH < 90%

5 - CLEANING OF DRY COATING – PRODUCTS USED
Conventional alkaline detergents.

6 – REPAIR METHODS:
☒ **General repairing on steel support**
Rebuilding of system to original state after cleaning of area to be repaired and grinding of adjacent areas. Please consult our technical advice nr.5 "Retouching"

7 - GROSS CALORIFIC VALUE:
For a total dry film thickness of 630 µm :
GCV value for the system = 19.7 MJ/kg
GCV product : ED1 Varnish = 34.1 MJ/kg – Coating LP100/512 = 21.6 MJ/kg

8 – COLORS NOT POSSIBLE WITHIN THE FRAMEWORK OF THE DECLARED PERFORMANCE
All, except those mentioned.

9 – PERFORMANCE OF COATING IN CONTACT WITH LIQUIDS
Results for liquid resistance trials are indicated in French comment files available on request.

(*) Substrate temperature must be 3°C minimum above the dew point.
(**) Only for pre-touching, small or difficult to access area, with ensuring the thickness and regularity of deposit. Forward smooth with spalter.
(***) Application with airless pump has to be made with a material equipped with heating hose in order to achieve a pulverisation temperature at lose exit of mini 35°C.

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sheet ex.nr.330
LP100/512 600µ, on Sa3 & ED1

Anti-corrosion protection

made of: single-layer solventfree epoxy

for:
in contact with: steel surfaces
PLA : *soil* - PLB : *calcifying raw fresh-water*
PLD : *demineralized water* - PLE : *sea water*
PLF : *hydrocarbons, oils* – PLG : *acids* - PLH : *bases*
PLJ : *radioactive effluents*

substrate: new steel *or* steel in good looking surface state (1)

Preparation as per Technical Advice nr 2 «Specification for preparation of steel», and as a minimum:

- **Grinding** — of barbs and welding projections until elimination, and of the weld beads and sharp angles for softening
- **Blasting** (2) — by any appropriate means to obtain equivalent to Sa 3 standard, with a Medium G or a Rt 50-75 microns profile
- **Removal** — of dust with industrial vacuum cleaner
- **Application** — while progressing and before any flash-rusting of one stand-by coat of solvent borne epoxy **ED1 Varnish,** 30 µm dry film, **100 g/sqm.**

LP100/512 *coating – thickness* 0.6 mm*:*

- **Application** — of **LP100/512** : In 1 layer using airless spray 45/1 minimum, Theoretical consumption: **900 g/sqm** for **600 microns**,
- **Checking** — as per *Technical Advice nr.3* "Performance testing" and *nr.4* "Dielectric testing"
- **Repair** — of defects as per *Technical Advice nr.5* "Retouching"

Application conditions: In accordance with the rules of the art and the indications of our data sheets and technical advices.

A loss factor has to be added for practical consumption, **about 15%**, according to means and methods used.

Possible guarantee: 5 years

depending on the nature and temperature of the effluent
In accordance with Circular G37 of the OHGPI
This proposal is based on our XL n°FR00008519LI, products civil liability insurance policy "after delivery", within its terms and limitations
To become effective, it must have been formalised in a duly signed guarantee commitment certificate.

♦♦♦♦♦♦

(1) **This specification is for substrates within state C of the standard ISO 8501-1988 - page 15**:
• In the case of important corrosion where the state D is reached without however being exceeded, a specific rendering of the corrosion cankers is necessary with **Render AR100**, solventfree epoxy gel charged with silica.
• If corrosion exceeds the state D, the implementation of a structure of **Electroperl® reinforced with glassfiber** is necessary before the application of the topcoat **LP100/512**.

(2) **In case of sweating of steel plates which contained oily products, observe 48 h delay after blasting.**
The emergence of brown stains must lead to a new blasting onto the affected areas until they disappear.

FNP n°1006 :

ED1 Varnish + Gelcoat SV101

Applies to :

300 PLA 301 304	300 PLB 301 -	300 PLD 301 304	300 PLE 301 -	300 PLF 301 304	300 PLG 301 -	300 PLH 301 304	300 PLJ 301 304	300 PLK 301 304

depending on specification

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EDF

Technical datasheet N° *344* index: *12*

Date *October 26, 2020.*

Manufacturer: ***max perlès et cie***
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Phone: ***+33 (0)3 44 49 86 22***
Email: ***contact@maxperles.com***

Name and signature of datasheet author:
François TAILLIBERT – Technical Manager

Name and signature of supervisor :
Franck MUTEAU – Chairman

For contract : ***EDF's Fichier National Peintures : FNP 1006***

Codes concerned :
PLA/PLB/PLD/PLE/PLF/PLG/PLH/PLJ/PLK 300/301
PLA/PLD/PLF/PLH/PLJ/PLK 304

Date of Project Owner VSO (reviewed, no comments):

Name and signature of VSO issuer :

SUBSTRATE	☒ STEEL and /or ☐ CONCRETE(*) and/or ☐ OTHER :	
PRODUCTS USED	Primer	Topcoat
Trade name	**ED1 Varnish(*)**	**Gelcoat SV101**
Colour (RAL identification)	Not pigmented	Light ivory 1015
Dry-film appearance	Satin	glossy
Optional or mandatory coat	mandatory coat	mandatory coat
1 – GENERAL CHARACTERISTICS		
Composition of mixture (%)		
Binder		
- type	Epoxy polyamide	Epoxy polyamine
- % by mass	46	70
Powder materials		
- type	none	Oxides + silicates
- % by mass	-	30
Solvent		
- type	Hydrocarbon/alcohol	None
- % by mass	54	-
Toxicity	See safety datasheet	
Flash point (°C):		
- Base	ED1 Varnish Base > 25°C	Gelcoat SV101 Base > 90°C
- Hardener	ED1 Varnish Hardener > 25°C	Gelcoat SV101 Hardener > 90°C
Density at 20°C (Kg/l)	0.95± 0.03	1.30 ± 0.05
Non-volatile matter by mass (%)	48 - 52	96 – 100
Non-volatile matter by volume (%)	40	100
Storage temperature limits (min/max) °C	0 / 35°C	0 / 35°C
Storage humidity limits (%)	-	-
Storage time in original unopened packaging at 20°C	18 months	18 months
Thickness in use (µm)° ~~or consumption (g/m²)~~		
- Minimum to seal film	20	150
- Maximum before sagging	40	850
Maximum service temperature (°C)	-	(**)
2 – APPLICATION PARAMETERS FOR RELEVANT USE		
Theoretical dry-film thickness for relevant application (µm)	30	600(***)
- Minimum tolerance	24	480
- Maximum tolerance	37.5	750
Practical consumption (g/m²)		
- Minimum/maximum	-	-
Theorical yield by volume (m²/l)	13.3	1.67

(*) Not used for group 304
(**) According to actual reagent. Please consult us.
(***) In the event of spalter use, apply Gelcoat SV101 in 2 layers of 300 microns each, at 6 hours of interval max.

PRODUCTS USED	Impregnation	Topcoat
3 – APPLICATION		
Atmosphere		
- Temperature limits (°C)	5 ≤ t ≤ 35	10 ≤ t ≤ 30
- Maximum humidity (%)	90	90
Substrate		
- Temperature limit (°C) (*)	5 ≤ t ≤ 45	5 ≤ t ≤ 45
Concrete substrate :		
- Maximum moisture content (%)	-	-
-pH limit	-	-
- CSP grade	-	-
Steel substrate		
- surface condition	Sa3	
- Max/min roughness (µm)	Mid G	-
Product :		
- Usage limit temperature for application (°C)	5 ≤ t ≤ 35	10 ≤ t ≤ 30
Mixing ratio and trade name of each part	☐Volume or ☒Mass	
- base % by mass	ED1 Varnish Base : 65	Gelcoat SV101 Base : 50
- hardener % by mass	ED1 Varnish Hardener : 35	Gelcoat SV101 Hardener : 50
Mixture usage conditions		
- Hardening time at + 10°C	None	None
- Maximum usage time after mixing at + 30°C.	5 hours	15 minutes
Recommended application method with % thinner used	Thinner ED	None
- Brush or roller	-	X
- AIRLESS gun	X 5% Thinner ED	X
- Conventional gun	-	-
4 – HARDENING / DRYING		
Drying time (20°C and 50% RH)		
- For dry film thickness of (µm)	30	600
- Dust free	0h20	2 hours
- Dry-to-handling	6 hours	24 hours
- Dry-to-recoat times (min/max)	12h/none	2 h / 6 h-
Time to maintain hardening conditions before entry into service at 20°C	-	7 days / 4 days- RH < 90%

5 - CLEANING OF DRY COATING – PRODUCTS USED
Conventional alkaline detergents.

6 – REPAIR METHODS:
☒ **General repairing on steel support**
Rebuilding of system to original state after cleaning of area to be repaired and grinding of adjacent areas. Please consult our technical advice nr.5 "Retouching"

7 - GROSS CALORIFIC VALUE:
For a total dry film thickness of 630 µm :
GCV value for the system = 23.2 MJ/kg
GCV product : ED1 Varnish = 34.1 MJ/kg – Gelcoat SV101 = 23.3 MJ/kg

8 – COLORS NOT POSSIBLE WITHIN THE FRAMEWORK OF THE DECLARED PERFORMANCE
All, except those mentioned.

9 – PERFORMANCE OF COATING IN CONTACT WITH LIQUIDS
Results for liquid resistance trials are indicated in French comment files available on request.

(*) Substrate temperature must be 3°C minimum above the dew point.

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sheet ex.nr.1006
Gelcoat SV101 600µ, on Sa3 & ED1

Anti-corrosion protection

made of: single layer solventfree novolac epoxy

for:
in contact with: steel surfaces
PLA : *soil* - PLB : *calcifying raw fresh-water*
PLD : *demineralized water* - PLE : *sea water*
PLF : *hydrocarbons, oils* – PLG : *acids* - PLH : *bases*
PLJ : *radioactive effluents* - PLK : *gases*

substrate: new steel or steel in good looking surface state (1)

Preparation as per Technical Advice nr 2 «Specification for preparation of steel», and as a minimum:

♦ Grinding	of barbs and welding projections until elimination, and of the weld beads and sharp angles for softening
♦ Blasting (2)	by any appropriate means to obtain equivalent to Sa 3 standard, with a Medium G or a Rt 50-75 microns profile
♦ Removal	of dust with industrial vacuum cleaner
♦ Application	while progressing and before any flash-rusting of one stand-by coat of solvent borne epoxy **ED1 Varnish,** 30 µm dry film, **100 g/sqm**,

Gelcoat SV101 *coating – thickness* 0.6 mm*:*

♦ Application	of **Gelcoat SV101**: In 1 layer using airless spray 45/1 minimum, or roller with spalter smoothing, in 2 passes from 2h to 6h of interval, Theoretical consumption: **800 g/sqm** for **600 microns**,
♦ Checking	as per *Technical Advice nr.3* "Performance testing" and *nr.4* "Dielectric testing"
♦ Repair	of defects as per *Technical Advice nr.5* "Retouching"

Application conditions: In accordance with the rules of the art and the indications of our data sheets and technical advices.

A **loss factor** has to be added for practical consumption, **about 15%**, according to means and methods used.

Possible guarantee: 5 years

depending on the nature and temperature of the effluent
In accordance with Circular G37 of the OHGPI
This proposal is based on our XL n°FR00008519LI, products civil liability insurance policy "after delivery", within its terms and limitations
To become effective, it must have been formalised in a duly signed guarantee commitment certificate.

♦♦♦♦♦♦

(1) **This specification is for substrates within state C of the standard ISO 8501-1988 - page 15**:
• In the case of important corrosion where the state D is reached without however being exceeded, a specific rendering of the corrosion cankers is necessary with **Render AR100**, solventfree epoxy gel charged with silica.
• If corrosion exceeds the state D, the implementation of a structure of **Electroperl® reinforced with glassfiber** is necessary before the application of the topcoat **Gelcoat SV101**.

(2) **In case of sweating of steel plates which contained oily products, observe 48 h delay after blasting.**
The emergence of brown stains must lead to a new blasting onto the affected areas until they disappear.

Max Perlès

September 2021

Technical Manual
Energy

Systems on concrete substrates

Systems on **concrete substrates** :

1. Preparation of the concrete substrate :

Sheet n°0 *describes the products to be used :*

- *As primers*
- *As renders*

prior to the application of our coating systems.

- *Under systems* ***PL 349*** *and* ***351 :***

  EDO PRIMER *and* ***AR100 RENDER*** *for* ***priming*** *and* ***surfacing***

- *Under system* ***EL 351 :***

  W PRIMER *and* ***AR100 RENDER*** *for* ***priming*** *and* ***surfacing***

This sheet constitutes an Annex to all the system sheets that follow, whether they be :

*« **watertight** » – 349*

or

*« **waterproof** » – 351*

Sheet n°0 :

Annex to systems

PL.349
and
PL.351
and
EL.351

Applies to :

PLB / PLE / PLF / PLG / PLH / PLJ 349

et

PLA / PLB / PLD / PLE / PLF / PLG / PLH / PLJ 351

ELA / ELB / ELD / ELE / ELF / ELG / ELH / ELJ 351

depending on specification

Max Perlès
advanced industrial linings

EDF

Technical datasheet N° *0* index: *12*

Date ***December 14, 2020.***

Manufacturer: ***max perlès et cie***
Address: ***BP 80439***
60119 Hénonville Cedex
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Email: ***contact@maxperles.com***

For contract : ***Specification for coating work***
Codes concerned :
Annex to files PL 349 – PL 351

Name and signature of datasheet author:
François TAILLIBERT – Technical Manager

Name and signature of supervisor :
Franck MUTEAU – Chairman

Date of Project Owner VSO (reviewed, no comments):

Name and signature of VSO issuer :

SUBSTRATE	☒ STEEL and /or ☒ CONCRETE(*) and/or ☐ OTHER :		
PRODUCTS USED	Impregnation(*) Concrete	Polyvalent Primer(*) Steel and Concrete	Rendering filler Concrete
Trade name	**Primer EDO**	**Primer W**	**Render AR100**
Colour (RAL identification)	Not pigmented	Not pigmented	Ochre 8001
Dry-film appearance	Satin	Satin	Rough / satin
Optional or mandatory coat	mandatory coat	mandatory coat	mandatory coat
1 – GENERAL CHARACTERISTICS			
Composition of mixture (%)			
Binder			
- type	Epoxy polyamide	Epoxy modified	Epoxy polyamine
- % by mass	24	72	24
Powder materials			
- type	Silica	None	Silicates/silica
- % by mass	23	-	76
Solvent			
- type	Water	Mixture	None
- % by mass	53	28	-
Toxicity		See Datasheet	
Flash point (°C):			
- Base	Primer EDO Base > 100°C	Primer W1 Base > 25°C	Render AR100 Base > 90°C
- Hardener	Primer EDO Hardener > 100°C	Primer W Hardener >90°C	Render AR100 Hardener > 90°C
Density at 20°C (Kg/l)	1.20 ± 0.05	1.00 ± 0.05	1.90 ± 0.05
Non-volatile matter by mass (%)	47 ± 2	67 ± 2	96 - 100
Non-volatile matter by volume (%)	36	68	100
Storage temperature limits (min/max) °C	1 / 35°C	0 / 35°C	0 / 35°C
Storage humidity limits (%)	-	-	-
Storage time in original unopened packaging at 20°C	18 months	18 months	18 months
Thickness in use (µm)° or consumption (g/m²)			
- Minimum to seal film	unmeasurable	20	unmeasurable
- Maximum before sagging	unmeasurable	50	Max 2cm
Maximum service temperature (°C)	-	-	-
2 – APPLICATION PARAMETERS FOR RELEVANT USE			
Theoretical dry-film thickness for relevant application (µm)		35	
- Minimum tolerance	-	-	-
- Maximum tolerance	-	-	-
Practical consumption (g/m²)	250 g/m²	60 g/m²	1.9 kg/m²/mm
- Minimum/maximum	200 / 325	50 / 75	According to surface profile
Theorical yield by volume (m²/l)	4.8	16.7	1

(*) In presence of metallic parts to treat with the same systems as concrete parts, Primer EDO should be replaced by Primer W which could be used for metallic, galvanised and concrete parts. In case of persistent humidity or high level porosity, 2 or even 3 coats of Primer EDO may be used as per mentioned in data sheet.

PRODUCTS USED	Impregnation Concrete	Polyvalent Primer Steel and Concrete	Rendering filler Concrete
3 – APPLICATION			
Atmosphere			
- Temperature limits (°C)	5 ≤ t ≤ 35	8 ≤ t ≤ 35	10 ≤ t ≤ 30
- Maximum humidity (%)	90	90	90
Substrate			
- Temperature limit (°C)	5 ≤ t ≤ 45	5 ≤ t ≤ 45	5 ≤ t ≤ 45
Concrete substrate :			
- Maximum moisture content (%)	< 4.5%(*)	(*)	(*)
- pH limit	6 – 9	6 – 9	-
- CSP grade	3 – 5	-	-
Steel substrate			
- surface condition		Sa3	
- Max/min roughness (µm)		Mid G	
Product :			
- Usage limit temperature for application (°C)	5 ≤ t ≤ 35	8 ≤ t ≤ 35	10 ≤ t ≤ 30
Mixing ratio and trade name of each part		☐ Volume or ☒ Mass	
- base % by mass	Primer EDO Base : 38.5	Primer W1 Base : 82	Render AR100 Base :85
- hardener % by mass	Primer EDO Hardener : 61.5	Primer W Hardener : 18	Render AR 100 Hardener : 15
Mixture usage conditions			
- Hardening time at + 10°C	None	None	none
- Maximum usage time after mixing at + 30°C	1 hour	30 minutes	1h
Recommended application method with % thinner used			
- Brush or roller	X water 10% if t° < 15°C	X thinner ED 5% after 30 minutes	-
- AIRLESS gun	-	-	-
- Conventional gun	-	-	-
4 – HARDENING / DRYING			
Drying time (20°C and 50% RH)			
- For dry film thickness of (µm)	-	35	-
- Dust free	1 hour	4 hours	5 hours
- Dry-to-handling	6 hours	4h30	12 hours
- Dry-to-recoat times (min/max)	6h / -	4h30 / -	12h / -(**)
Time to maintain hardening conditions before entry into service at 20°C	-	-	-

5 - CLEANING OF DRY COATING – PRODUCTS USED
Conventional alkaline detergents.

6 – REPAIR METHODS:
Rebuilding of system to original state after cleaning of area to be repaired

7 - GROSS CALORIFIC VALUE:
GCV product : Primer EDO = 20.3 MJ/kg // Primer W = 30.9 MJ/kg // Render AR100 = 7.8 MJ/kg

8 – COLORS NOT POSSIBLE WITHIN THE FRAMEWORK OF THE DECLARED PERFORMANCE
All, except those mentioned.

9 – PERFORMANCE OF COATING IN CONTACT WITH LIQUIDS
-

(*) Substrate temperature must be 3°C minimum above the dew point.
(**) Recoat immediately authorized for located area with surface < 1/10m².

Systems on concrete substrates :

2. Watertight systems : group 349

FNP number	System composition	EDF Codification - series
305	ELECTROPERL	PLB/PLE/PLF/PLH/PLJ
1007	SV101	PLB/PLE/PLF/PLG/PLH

Max Perlès

September 2021

Technical Manual
Energy

FNP n°305 :

ELECTROPERL

Applies to :

PLB 349	PLE 349	PLF 349	PLH 349	PLJ 349

depending on specification

Max Perlès
advanced industrial linings

EDF

Technical datasheet N° ***305*** index: ***07***

Date ***October 26, 2020.***

Manufacturer: ***max perlès et cie***
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Phone: ***+33 (0)3 44 49 86 22***
Email: ***contact@maxperles.com***

For contract : ***EDF's Fichier National Peintures : FNP 305***

Codes concerned :
PLB/PLE/PLF/PLH /PLJ 349

Name and signature of datasheet author:
François TAILLIBERT – Technical Manager

Date of Project Owner VSO (reviewed, no comments):

Name and signature of supervisor :
Franck MUTEAU – Chairman

Name and signature of VSO issuer :

SUBSTRATE	☐ STEEL and /or ☒ CONCRETE(*) and/or ☐ OTHER :
PRODUCTS USED	Topcoat
Trade name	**Electroperl**
Colour (RAL identification)	Grey 7035
Dry-film appearance	glossy
Optional or mandatory coat	mandatory coat
1 – GENERAL CHARACTERISTICS	
Composition of mixture (%)	
Binder	
- type.....	Epoxy polyamine
- % by mass	72
Powder materials	
- type.....	Oxides + silicates
- % by mass	28
Solvent	
- type.....	None
- % by mass	-
Toxicity	See safety datasheet
Flash point (°C):	
- Base	Electroperl Base
	> 90°C
- Hardener	Electroperl Hardener
	> 90°C
Density at 20°C (Kg/l).....	1.32 ± 0.05
Non-volatile matter by mass (%).....	96 – 100
Non-volatile matter by volume (%).....	100
Storage temperature limits (min/max) °C.....	0 / 35°C
Storage humidity limits (%)	-
Storage time in original unopened packaging at 20°C.....	18 months
Thickness in use (µm)° ~~or consumption (g/m²)~~	500
- Minimum to seal film.....	300
- Maximum before sagging.....	850
Maximum service temperature (°C)	(**)
2 – APPLICATION PARAMETERS FOR RELEVANT USE	
Theoretical dry-film thickness for relevant application (µm)	500
- Minimum tolerance	500
- Maximum tolerance	750
Practical consumption (g/m²)	
- Minimum/maximum	600 - 900
Theorical yield by volume (m²/l).....	2.00(***)

(*) Application of annex 0 technical data sheet, according to specification.
(**) According to actual reagent. Please consult us.
(***) Possible application in 2 coats of 250 microns, the 2nd on top of the 1st one still tacky, or sprinkled with silica F15 at 400g/m² : see CCTR/SCW in application

PRODUCTS USED	Topcoat
3 – APPLICATION	
Atmosphere	
- Temperature limits (°C)	$10 \leq t \leq 30$
- Maximum humidity (%).....	90
Substrate	
- Temperature limit (°C)	$5 \leq t \leq 45$
Concrete substrate :	
- Maximum moisture content (%)	(*)
-pH limit.....	-
- CSP grade	-
Steel substrate	-
- surface condition	-
- Max/min roughness (µm).....	-
Product :	
- Usage limit temperature for application (°C)	$10 \leq t \leq 30$
Mixing ratio and trade name of each part	☐Volume or ☒Mass
- base % by mass	Electroperl Base : 75
- hardener % by mass	Electroperl Hardener : 25
Mixture usage conditions	
- Hardening time at + 10°C	None
- Maximum usage time after mixing at + 30°C.	20 minutes
Recommended application method with % thinner used	
- Brush or roller	X without dilution
- AIRLESS gun	X without dilution
- Conventional gun.....	-
4 – HARDENING / DRYING	
Drying time (20°C and 50% RH)	
- For dry film thickness of (µm).....	500
- Dust free.....	3 hours
- Dry-to-handling.....	8 hours
- Dry-to-recoat times (min/max)	-
Time to maintain hardening conditions before entry into service at 20°C	7 days / 4 days- RH < 90%

5 - CLEANING OF DRY COATING – PRODUCTS USED

Conventional alkaline detergents.

6 – REPAIR METHODS:

Rebuilding of system to original state after cleaning of area to be repaired and grinding of adjacent areas. Please consult our technical advice nr.5 "Retouching"

7 - GROSS CALORIFIC VALUE:

For a total dry film thickness of 500 µm :
GCVvalue for the system Primer EDO + Render AR100 + FNP305 = 13.5 MJ/kg
GCV product : Electroperl = 24.6 MJ/kg

8 – COLORS NOT POSSIBLE WITHIN THE FRAMEWORK OF THE DECLARED PERFORMANCE

All, except those mentioned.

9 – PERFORMANCE OF COATING IN CONTACT WITH LIQUIDS

Results for liquid resistance trials are indicated in French comment files available on request.

(*) Substrate temperature must be 3°C minimum above the dew point.

sheet ex.nr.305
Electroperl® – 0.5 mm

Watertight coating (1)

made of: single-layer solventfree epoxy

for: floors, walls and roof under-faces

in contact (2) with: PLB : *calcifying raw fresh-water* - PLE : *sea water*
PLF : *hydrocarbons, oils* – PLH : *bases* – PLJ : *radioactive effluents*

substrate: new concrete

Preparation as per Technical Advice nr 1 «Specification for preparation of concrete», and as a minimum:

- **Obtaining** a healthy and homogeneous (3) substrate, free from laitance, loose particles and dust, over 100 microns surface roughness, using appropriate mechanical means
- **Removal** of dust with industrial vacuum cleaner
- **Impregnation** of concrete with waterborne epoxy **Primer EDO** using a roller, **250 g/sqm**
- **Rendering** of surface defects with epoxy **Render AR100**

Electroperl® *coating – thickness* 0.5 mm*:*

- **Application** of **Electroperl® :**
  In 1 layer using airless pump,
  or roller with spalter smoothing, in 2 passes,
  the 2nd one over the 1st one still tacky or sprinkled with Silica SBO or F15 while progressing
  Theoretical consumption: **700 g/sqm** for **500 microns,**
- **Checking** as per *Technical Advice nr 3* "Performance testing" and *nr 4* "Dielectric testing"
- **Repair** of defects as per *Technical Advice nr 5* "Retouching"

Application conditions: In accordance with the rules of the art and the indications of our data sheets and technical advices.

A loss factor has to be added for practical consumption, **about 15%**, according to means and methods used.

Guarantee: 10 years

Exclusions *:*
- any defects coming from un-bridged cracks in the substrate or from un-drained counter-pressure.
- surface colour may change

This proposal is based on our XL n°FR00008519LI, products civil liability insurance policy "after delivery", within its terms and limitations
To become effective, it must have been formalised in a duly signed guarantee commitment certificate.

♦♦♦♦♦♦

(1) In accordance with the definition of the Annals of the Technical Institute of the Building industry and Public works - ITBTP - May 1990, for the **works of class B.**
(2) **Occasional or accidental contact only, limited to 3 days, to be cleaned after they occur.**
(3) **The surface compactness of the concrete surface must be ≥ 1,5 MPa.**

FNP n°1007 :

Gelcoat SV101

Applies to :

PLB 349	PLE 349	PLF 349	PLG 349	PLH 349

depending on specification

Technical datasheet N° *332* index: *07*

Date *October 26, 2020.*

Manufacturer: ***max perlès et cie***
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For contract : *EDF's Fichier National Peintures : FNP 1007*

Codes concerned :
PLB/PLE/PLF/PLG/PLH 349

Name and signature of datasheet author:
François TAILLIBERT – Technical Manager

Date of Project Owner VSO (reviewed, no comments):

Name and signature of supervisor :
Franck MUTEAU – Chairman

Name and signature of VSO issuer :

SUBSTRATE	☐ STEEL and /or ☒ CONCRETE(*) and/or ☐ OTHER :
PRODUCTS USED	Topcoat
Trade name	**Gelcoat SV101**
Colour (RAL identification)	Light ivory 1015
Dry-film appearance	glossy
Optional or mandatory coat	mandatory coat
1 – GENERAL CHARACTERISTICS	
Composition of mixture (%)	
Binder	
- type.....	Epoxy polyamine
- % by mass	70
Powder materials	
- type.....	Oxides + silicates
- % by mass	30
Solvent	
- type.....	None
- % by mass	-
Toxicity	See safety datasheet
Flash point (°C):	
- Base	Gelcoat SV101 Base > 90°C
- Hardener	Gelcoat SV101 Hardener > 90°C
Density at 20°C (Kg/l).....	1.30 ± 0.05
Non-volatile matter by mass (%).....	96 – 100
Non-volatile matter by volume (%).....	100
Storage temperature limits (min/max) °C.....	0 / 35°C
Storage humidity limits (%)	-
Storage time in original unopened packaging at 20°C.....	18 months
Thickness in use (µm) ~~or consumption (g/m²)~~	600
- Minimum to seal film.....	300
- Maximum before sagging.....	850
Maximum service temperature (°C)	(**)
2 – APPLICATION PARAMETERS FOR RELEVANT USE	
Theoretical dry-film thickness for relevant application (µm)	600
- Minimum tolerance	-
- Maximum tolerance	-
Practical consumption (g/m²)	900
- Minimum/maximum	720/1080-
Theorical yield by volume (m²/l).....	1.67(***)

(*) Application of annex 0 technical data sheet, according to specification.
(**) According to actual reagent. Please consult us.
(***) In the event spalter use, apply Gelcoat SV101 in 2 layers of 300 microns each, at 6 hours of interval. See CCTR / SCW in application.

PRODUCTS USED	Topcoat
3 – APPLICATION	
Atmosphere	
- Temperature limits (°C)	10 ≤ t ≤ 30
- Maximum humidity (%)	90
Substrate	
- Temperature limit (°C)	5 ≤ t ≤ 45
Concrete substrate :	
- Maximum moisture content (%)	(*)
- pH limit	-
- CSP grade	-
Steel substrate	
- surface condition	-
- Max/min roughness (µm)	-
Product :	
- Usage limit temperature for application (°C)	10 ≤ t ≤ 30
Mixing ratio and trade name of each part	☐Volume or ☒Mass
- base % by mass	Gelcoat SV101 Base : 50
- hardener % by mass	Gelcoat SV101 Hardener : 50
Mixture usage conditions	
- Hardening time at + 10°C	None
- Maximum usage time after mixing at + 30°C.	15 minutes
Recommended application method with % thinner used	None
- Brush or roller	X
- AIRLESS gun	X
- Conventional gun	-
4 – HARDENING / DRYING	
Drying time (20°C and 50% RH)	
- For dry film thickness of (µm)	600
- Dust free	2 hours
- Dry-to-handling	24 hours
- Dry-to-recoat times (min/max)	2 h / 6 h
Time to maintain hardening conditions before entry into service at 20°C	7 days / 4 days- RH < 90%

5 - CLEANING OF DRY COATING – PRODUCTS USED
Conventional alkaline detergents.

6 – REPAIR METHODS:
Rebuilding of system to original state after cleaning of area to be repaired and grinding of adjacent areas. Please consult our technical advice nr.5 "Retouching"

7 - GROSS CALORIFIC VALUE:
For a total dry film thickness of 600 µm :
GCV value for the system Primer EDO + Render AR100 + FNP1007 = 13.5 MJ/kg
GCV product : Gelcoat SV101 = 23.3 MJ/kg

8 – COLORS NOT POSSIBLE WITHIN THE FRAMEWORK OF THE DECLARED PERFORMANCE
All, except those mentioned.

9 – PERFORMANCE OF COATING IN CONTACT WITH LIQUIDS
Results for liquid resistance trials are indicated in French comment files available on request.

(*) Substrate temperature must be 3°C minimum above the dew point.

sheet ex.nr.1007
Gelcoat SV101 – 0.6 mm

Watertight coating (1)

made of: single-layer solventfree novolac epoxy

for: floors, walls *and* roof under-faces

in contact (2) with: PLB: *calcifying raw fresh* - PLE : *sea water*
PLF : *hydrocarbons, oils* – PLG : *acids* - PLH : *bases*

substrate: new concrete

Preparation as per Technical Advice nr 1 «Specification for preparation of concrete», and as a minimum:

- **Obtaining** a healthy and homogeneous (3) substrate, free from laitance, loose particles and dust, over 100 microns surface roughness, using appropriate mechanical means
- **Removal** of dust with industrial vacuum cleaner
- **Impregnation** of concrete with waterborne epoxy **Primer EDO** using a roller, **250 g/sqm**
- **Rendering** of surface defects with epoxy **Render AR100**

Gelcoat SV101 *coating – thickness* 0.6 mm*:*

- **Application** of **Gelcoat SV101 :**
  using a roller with spalter smoothing, in 2 passes from 2h to 6h of interval,
  Theoretical consumption: **800 g/sqm** for **600 microns,**
- **Checking** as per *Technical Advice nr 3* "Performance testing" and *nr 4* "Dielectric testing"
- **Repair** of defects as per *Technical Advice nr 5* "Retouching"

Application conditions: In accordance with the rules of the art and the indications of our data sheets and technical advices.

A loss factor has to be added for practical consumption, **about 15%**, according to means and methods used.

Guarantee: 10 years

Exclusions *:*
- any defects coming from un-bridged cracks in the substrate or from un-drained counter-pressure.
- surface colour may change

This proposal is based on our XL n°FR00008519LI, products civil liability insurance policy "after delivery", within its terms and limitations
To become effective, it must have been formalised in a duly signed guarantee commitment certificate.

♦♦♦♦♦♦

(1) In accordance with the definition of the Annals of the Technical Institute of the Building industry and Public works - ITBTP - May 1990, for the **works of class B.**
(2) **Occasional or accidental contact only, limited to 3 days, to be cleaned after they occur.**
(3) **The surface compactness of the concrete surface must be ≥ 1,5 MPa.**

Systems on concrete substrates :

3. Waterproof systems : group 351

FNP number	System composition	EDF codification - series
325	ELECTROPERL + A , B or C – type reinforcements + ELECTROPERL	PLA/PLB/PLD/PLE/PLF/PLH/PLJ ELA/ELB/ELD/ELE/ELF/ELH/ELJ
329	ELECTROPERL + A , B or C – type reinforcements + LP 100/512	PLA/PLB/PLD/PLE/PLF/PLG/PLH ELA/ELB/ELD/ELE/ELF/ELG/ELH
1008	ELECTROPERL + A – type reinforcement + SV101	PLA/PLB/PLD/PLE/PLF/PLG/PLH/PLJ ELA/ELB/ELD/ELE/ELF/ELG/ELH/ELJ
1009	ELECTROPERL + B – type reinforcement + SV101	PLA/PLB/PLD/PLE/PLF/PLG/PLH/PLJ ELA/ELB/ELD/ELE/ELF/ELG/ELH/ELJ
1010	ELECTROPERL + C – type reinforcement + SV101	PLA/PLB/PLD/PLE/PLF/PLG/PLH/PLJ ELA/ELB/ELD/ELE/ELF/ELG/ELH/ELJ

Reinforcements :

A - type reinforcement : *Glass fiber mat M4 - 450 g/m² + Glass fiber tissue P45 - 450 g/m²*

B - type reinforcement : *Glass fiber tissue P80 - 800 g/m²*

C - type reinforcement : *Glass fiber tissue P120 - 1200 g/m²*
*for group **351 R** (**R**einforced systems) only*

Max Perlès

September 2021

Technical Manual
Energy

FNP n°325 :

Reinforced ELECTROPERL systems with ELECTROPERL finish

Applies to :

PLA ELA 351	PLB ELB 351	PLD ELD 351	PLE ELE 351	PLF ELF 351	PLH ELH 351	PLJ ELJ 351

depending on specification

Max Perlès
advanced industrial linings

EDF

Technical datasheet N° ***325 A*** index: ***08***

Date ***December 14, 2020***

Manufacturer: ***max perlès et cie***
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Name and signature of datasheet author:
François TAILLIBERT – Technical Manager

Name and signature of supervisor :
Franck MUTEAU – Chairman

For contract : ***EDF's Fichier National Peintures : FNP 325***

Codes concerned :
PLA/PLB/PLD/PLE/PLF/PLH/PLJ 351
These systems can also be used for **EL** series, after checking (8.1 CCTR) and application of **Primer W** as a linking primer : See Annex 0

Date of Project Owner VSO (reviewed, no comments):

Name and signature of VSO issuer :

SUBSTRATE	☐ STEEL and /or ☒ CONCRETE(*) and/or ☐ OTHER :			
PRODUCTS USED	Impregnation / Saturation 1st ply	Reinforcement	Saturation 2nd ply	Topcoat
Trade name	**Electroperl x 2**	**1 glass matt 450 + 1 glass fabric P45 (**)**	**Electroperl**	**Electroperl**
Colour (RAL identification)	Grey 7035		Grey 7035	Grey 7035
Dry-film appearance	Glossy		Rough / matt	glossy
Optional or mandatory coat	Mandatory coat	Mandatory coat	Mandatory coat	Mandatory coat
1 – GENERAL CHARACTERISTICS				
Composition of mixture (%)				
Binder				
- type	Epoxy polyamine		Epoxy polyamine	Epoxy polyamine
- % by mass	72		72	72
Powder materials				
- type	Oxides + silicates		Oxides + silicates	Oxides + silicates
- % by mass	28		28	28
Solvent				
- type	None		None	None
- % by mass	-		-	-
Toxicity	See safety datasheet			
Flash point (°C):				
- Base	Electroperl Base > 90°C		Electroperl Base > 90°C	Electroperl Base > 90°C
- Hardener	Electroperl Hardener > 90°C		Electroperl Hardener > 90°C	Electroperl Hardener > 90°C
Density at 20°C (Kg/l)	1.32 ± 0.05		1.32 ± 0.05	1.32 ± 0.05
Non-volatile matter by mass (%)	96 – 100		96 – 100	96 – 100
Non-volatile matter by volume (%)	100		100	100
Storage temperature limits (min/max) °C	0 / 35°C		0 / 35°C	0 / 35°C
Storage humidity limits	-		-	-
Storage time in original unopened packaging at 20°C	18 months		18 months	18 months
Thickness in use (µm) ~~or consumption (g/m²)~~	600		-	600
- Minimum to seal film	510		-	300
- Maximum before sagging	750		-	850
Maximum service temperature (°C)	-		-	(***)
2 – APPLICATION PARAMETERS FOR RELEVANT USE				
Theoretical dry-film thickness for relevant application (µm)	←	About 2400 µm	→	600
- Minimum tolerance	-		-	-
- Maximum tolerance	-		-	-
Practical consumption (g/m²)	1000 + 800	450 + 450	700	900
- Minimum/maximum	850-1250//680 –1000	-	595 – 875	720 - 1080
Theorical yield by volume (m²/l)	1.67 + 1.8	-	2.5	1.67(****)

(*) Application of annex 0 technical date sheet, according to specification.
(**) **Exists also in reinforced system with 1 ply with glass fabric P80 => data sheet 325B, *and* with glass fabric P120 => data sheet 325C**
(***) According to actual reagent. Please consult us
(****) Possible application in 2 coats of 300 microns, the 2nd on top the 1st one still tacky, or sprinkled with silica F15 : see CCTR / SCW in application.

PRODUCTS USED	Impregnation / Saturation 1st ply	Reinforcement	Saturation 2nd ply	Topcoat
3 – APPLICATION				
Atmosphere				
- Temperature limits (°C)	10 ≤ t ≤ 30		10 ≤ t ≤ 30	10 ≤ t ≤ 30
- Maximum humidity (%)	90		90	90
Substrate				
- Temperature limit (°C)	5 ≤ t ≤ 45		5 ≤ t ≤ 45	5 ≤ t ≤ 45
Concrete substrate :				
- Maximum moisture content (%)	(*)		(*)	(*)
- pH limit	-		-	-
- CSP grade	-		-	-
Steel substrate				
- surface condition	-		-	-
- Max/min roughness (µm)	-		-	-
Product :				
- Usage limit temperature for application (°C)	10 ≤ t ≤ 30		10 ≤ t ≤ 30	10 ≤ t ≤ 30
Mixing ratio and trade name of each part		☐Volume or ☒Mass		
- base % by mass	Electroperl Base : 75		Electroperl Base : 75	Electroperl Base : 75
- hardener % by mass	Electroperl Hardener :25		Electroperl Hardener :25	Electroperl Hardener :25
Mixture usage conditions				
- Hardening time at + 10°C	None		None	None
- Maximum usage time after mixing at + 30°C.	20 minutes		20 minutes	20 minutes
Recommended application method with % thinner used				
- Brush or roller	X without dilution		X without dilution	X without dilution
- AIRLESS gun	-		-	X without dilution
- Conventional gun	-		-	-
4 – HARDENING / DRYING				
Drying time (20°C and 50% RH)				
- For dry film thickness of (µm)	-		2400	600
- Dust free	3 hours		3 hours	3 hours
- Dry-to-handling	-		8 hours	8 hours
- Dry-to-recoat times (min/max)	Immediate		24h min with sprinkling Silica F15	-
Time to maintain hardening conditions before entry into service at 20°C	-		-	7 days /4 days-RH < 90%

5 - CLEANING OF DRY COATING – PRODUCTS USED
Conventional alkaline detergents.

6 – REPAIR METHODS:
Rebuilding of system to original state after cleaning of area to be repaired and grinding of adjacent areas. Please consult our technical advice nr.5 "Retouching"

7 - GROSS CALORIFIC VALUE:
For a total dry film thickness of 3000 µm :
GCV value for the system : Primer EDO + Render AR100 + FNP325A = 12.1 MJ/kg
GCV product : Electroperl = 24.6 MJ/kg

8 – COLORS NOT POSSIBLE WITHIN THE FRAMEWORK OF THE DECLARED PERFORMANCE
All, except those mentioned.

9 – PERFORMANCE OF COATING IN CONTACT WITH LIQUIDS
Results for liquid resistance trials are indicated in French comment files available on request.

(*) Substrate temperature must be 3°C minimum above the dew point.

Max Perlès
advanced industrial linings

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Technical datasheet N° ***325 B*** index: ***08***

Date ***December 14, 2020***

Manufacturer: ***max perlès et cie***
Address: ***BP 80439***
60119 Hénonville Cedex
Phone: ***+33 (0)3 44 49 86 22***
Email: ***contact@maxperles.com***

Name and signature of datasheet author:
François TAILLIBERT – Technical Manager

Name and signature of supervisor :
Franck MUTEAU – Chairman

For contract : ***EDF's Fichier National Peintures : FNP 325***

Codes concerned :
PLA/PLB/PLD/PLE/PLF/PLH/PLJ 351
These systems can also be used for **EL** series, after checking (8.1 CCTR) and application of **Primer W** as a linking primer : See Annex 0

Date of Project Owner VSO (reviewed, no comments):

Name and signature of VSO issuer :

SUBSTRATE	☐ STEEL and /or ☒ CONCRETE(*) and/or ☐ OTHER :			
PRODUCTS USED	Impregnation	Reinforcement	Saturation	Topcoat
Trade name	**Electroperl**	**1 glass fabric P80** (**)	**Electroperl**	**Electroperl**
Colour (RAL identification)	Grey 7035		Grey 7035	Grey 7035
Dry-film appearance	Glossy		Rough / matt	Glossy
Optional or mandatory coat	mandatory coat		mandatory coat	mandatory coat
1 – GENERAL CHARACTERISTICS				
Composition of mixture (%)				
Binder				
- type	Epoxy polyamine		Epoxy polyamine	Epoxy polyamine
- % by mass	72		72	72
Powder materials				
- type	Oxides + silicates		Oxides + silicates	Oxides + silicates
- % by mass	28		28	28
Solvent				
- type	None		None	None
- % by mass	-		-	-
Toxicity	See safety datasheet			
Flash point (°C):				
- Base	Electroperl Base > 90°C		Electroperl Base > 90°C	Electroperl Base > 90°C
- Hardener	Electroperl Hardener > 90°C		Electroperl Hardener > 90°C	Electroperl Hardener > 90°C
Density at 20°C (Kg/l)	1.32 ± 0.05		1.32 ± 0.05	1.32 ± 0.05
Non-volatile matter by mass (%)	96 – 100		96 – 100	96 – 100
Non-volatile matter by volume (%)	100		100	100
Storage temperature limits (min/max) °C	0 / 35°C		0 / 35°C	0 / 35°C
Storage humidity limits	-		-	-
Storage time in original unopened packaging at 20°C	18 months		18 months	18 months
Thickness in use (µm) ~~or consumption (g/m²)~~	700		-	600
- Minimum to seal film	595		-	300
- Maximum before sagging	875		-	850
Maximum service temperature (°C)	-		-	(***)
2 – APPLICATION PARAMETERS FOR RELEVANT USE				
Theoretical dry-film thickness for relevant application (µm)	← about 2000 µm →			600
- Minimum tolerance	-		-	-
- Maximum tolerance	-		-	-
Practical consumption (g/m²)	1100	800	800	900
- Minimum/maximum	935 – 1375	-	680 – 1000	720 - 1080
Theorical yield by volume (m²/l)	1.43	-	2	1.67(****)

(*) Application of annex 0 technical date sheet, according to specification.
(**) **Exists also in reinforced system with double lay with mat 450+ glass fabric P45 => data sheet 325A, *and* with glass fabric P120 => data sheet 325C**
(***) According to actual reagent. Please consult us.
(****) Possible application in 2 coats of 300 microns, the 2nd on top the 1st one still tacky, or sprinkled with silica F15 : see CCTR /SCW in application.

PRODUCTS USED	Impregnation	Reinforcement	Saturation	Topcoat
3 – APPLICATION				
Atmosphere				
- Temperature limits (°C)	$10 \leq t \leq 30$		$10 \leq t \leq 30$	$10 \leq t \leq 30$
- Maximum humidity (%)	90		90	90
Substrate				
- Temperature limit (°C)	$5 \leq t \leq 45$		$5 \leq t \leq 45$	$5 \leq t \leq 45$
Concrete substrate :				
- Maximum moisture content (%)	(*)		(*)	(*)
-pH limit	-		-	-
- CSP grade	-		-	-
Steel substrate				
- surface condition	-		-	-
- Max/min roughness (µm)	-		-	-
Product :				
- Usage limit temperature for application (°C)	$10 \leq t \leq 30$		$10 \leq t \leq 30$	$10 \leq t \leq 30$
Mixing ratio and trade name of each part		☐Volume or	☒Mass	
- base % by mass	Electroperl Base : 75	P80	Electroperl Base : 75	Electroperl Base : 75
- hardener % by mass	Electroperl Hardener :25		Electroperl Hardener :25	Electroperl Hardener :25
Mixture usage conditions				
- Hardening time at + 10°C	None		None	None
- Maximum usage time after mixing at + 30°C.	20 minutes		20 minutes	20 minutes
Recommended application method with % thinner used	without dilution		without dilution	without dilution
- Brush or roller	X		X	X
- AIRLESS gun	-		-	X
- Conventional gun	-		-	-
4 – HARDENING / DRYING				
Drying time (20°C and 50% RH)				
- For dry film thickness of (µm)	-		2000	600
- Dust free	3 hours		3 hours	3 hours
- Dry-to-handling	-		8 hours	8 hours
- Dry-to-recoat times (min/max)	Immediate		24h min with sprinkling Silice F15	-
Time to maintain hardening conditions before entry into service at 20°C	-		-	7 days / 4 days-RH < 90%

5 - CLEANING OF DRY COATING – PRODUCTS USED
Conventional alkaline detergents.

6 – REPAIR METHODS:
Rebuilding of system to original state after cleaning of area to be repaired and grinding of adjacent areas. Please consult our technical advice nr.5 "Retouching"

7 - GROSS CALORIFIC VALUE:
For a total dry film thickness of 2600 µm :
GCV value for the system : Primer EDO + Render AR100 + FNP325B = 12.0 MJ/kg
GCV product : Electroperl = 24.6 MJ/kg

8 – COLORS NOT POSSIBLE WITHIN THE FRAMEWORK OF THE DECLARED PERFORMANCE
All, except those mentioned.

9 – PERFORMANCE OF COATING IN CONTACT WITH LIQUIDS
Results for liquid resistance trials are indicated in French comment files available on request.

(*) Substrate temperature must be 3°C minimum above the dew point.

Technical datasheet N° ***325 C*** index: ***08***

Date ***December 14, 2020***

Manufacturer: ***max perlès et cie***
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Email: ***contact@maxperles.com***

Name and signature of datasheet author:
François TAILLIBERT – Technical Manager

Name and signature of supervisor :
Franck MUTEAU – Chairman

For contract : ***EDF's Fichier National Peintures : FNP 325***

Codes concerned :
PLA/PLB/PLD/PLE/PLF/PLH/PLJ 351 R
These systems can also be used for **EL** series, after checking (8.1 CCTR) and application of **Primer W** as a linking primer : See Annex 0

Date of Project Owner VSO (reviewed, no comments):

Name and signature of VSO issuer :

SUBSTRATE	☐ STEEL and /or ☒ CONCRETE(*) and/or ☐ OTHER :			
PRODUCTS USED	Impregnation	Reinforcement	Saturation	Topcoat
Trade name	**Electroperl**	**1 glass fabric P120 (**)**	**Electroperl**	**Electroperl**
Colour (RAL identification)	Grey 7035		Grey 7035	Grey 7035
Dry-film appearance	Glossy		Rought / matt	glossy
Optional or mandatory coat	Mandatory coat	Mandatory coat	Mandatory coat	Mandatory coat
1 – GENERAL CHARACTERISTICS				
Composition of mixture (%)				
Binder				
- type	Epoxy polyamine		Epoxy polyamine	Epoxy polyamine
- % by mass	72		72	72
Powder materials				
- type	Oxides + silicates		Oxides + silicates	Oxides + silicates
- % by mass	28		28	28
Solvent				
- type	None		None	None
- % by mass	-		-	-
Toxicity	See safety datasheet			
Flash point (°C):				
- Base	Electroperl Base > 90°C		Electroperl Base > 90°C	Electroperl Base > 90°C
- Hardener	Electroperl Hardener > 90°C		Electroperl Hardener > 90°C	Electroperl Hardener > 90°C
Density at 20°C (Kg/l)	1.32 ± 0.05		1.32 ± 0.05	1.32 ± 0.05
Non-volatile matter by mass (%)	96 – 100		96 – 100	96 – 100
Non-volatile matter by volume (%)	100		100	100
Storage temperature limits (min/max) °C	0 / 35°C		0 / 35°C	0 / 35°C
Storage humidity limits	-		-	-
Storage time in original unopened packaging at 20°C	18 months		18 months	18 months
Thickness in use (µm) ~~or consumption (g/m²)~~	800		-	600
- Minimum to seal film	680			300
- Maximum before sagging	1000			850 (***)
Maximum service temperature (°C)				
2 – APPLICATION PARAMETERS FOR RELEVANT USE				
Theoretical dry-film thickness for relevant application (µm)	←	about 2400 µm	→	600
- Minimum tolerance	-		-	-
- Maximum tolerance	-		-	-
Practical consumption (g/m²)	1300	1200	1000	900
- Minimum/maximum	1105 – 1625	-	850 – 1250	720 - 1080
Theorical yield by volume (m²/l)	1.25	-	1.67	1.67(****)

(*) Application of annex 0 technical date sheet, according to specification.
(**) **Exists also in reinforced system with double lay with mat 450+ glass fabric P45 => data sheet 325A, *and* with glass fabric P80 => data sheet 325B**
(***) According to actual reagent. Please consult us
(****) Possible application in 2 coats of 300 microns, the 2nd on top the 1st one still tacky, or sprinkled with silica F15 : see CCTR /SCW in application.

PRODUCTS USED	Impregnation	Reinforcement	Saturation	Topcoat
3 – APPLICATION				
Atmosphere				
- Temperature limits (°C)	10 ≤ t ≤ 30		10 ≤ t ≤ 30	10 ≤ t ≤ 30
- Maximum humidity (%)	90		90	90
Substrate				
- Temperature limit (°C)	5 ≤ t ≤ 45		5 ≤ t ≤ 45	5 ≤ t ≤ 45
Concrete substrate :				
- Maximum moisture content (%)	(*)		(*)	(*)
- pH limit	-		-	-
- CSP grade	-		-	-
Steel substrate				
- surface condition	-		-	-
- Max/min roughness (µm)	-		-	-
Product :				
- Usage limit temperature for application (°C)	10 ≤ t ≤ 30		10 ≤ t ≤ 30	10 ≤ t ≤ 30
Mixing ratio and trade name of each part		☐Volume or ☒Mass		
- base % by mass	Electroperl Base 75		Electroperl Base 75	Electroperl Base 75
- hardener % by mass	Electroperl Hardener 25		Electroperl Hardener 25	Electroperl Hardener 25
Mixture usage conditions				
- Hardening time at + 10°C	None		None	None
- Maximum usage time after mixing at + 30°C.	20 minutes		20 minutes	20 minutes
Recommended application method with % thinner used	without dilution		without dilution	without dilution
- Brush or roller	X		X	X
- AIRLESS gun	-		-	X
- Conventional gun	-		-	-
4 – HARDENING / DRYING				
Drying time (20°C and 50% RH)				
- For dry film thickness of (µm)	-		2400	600
- Dust free	3 hours		3 hours	3 hours
- Dry-to-handling	-		8 hours	8 hours
- Dry-to-recoat times (min/max)	Immediate		24h min with sprinkling Silica F15	-
Time to maintain hardening conditions before entry into service at 20°C	-		-	7 days /4 days- RH < 90%

5 - CLEANING OF DRY COATING – PRODUCTS USED
Conventional alkaline detergents.

6 – REPAIR METHODS:
Rebuilding of system to original state after cleaning of area to be repaired and grinding of adjacent areas. Please consult our technical advice nr.5 "Retouching"

7 - GROSS CALORIFIC VALUE:
For a total dry film thickness of 3000 µm :
GCV value for the system : Primer EDO + Render AR100 + FNP325C = 12.1 MJ/kg
GCV product : Electroperl = 24.6 MJ/kg

8 – COLORS NOT POSSIBLE WITHIN THE FRAMEWORK OF THE DECLARED PERFORMANCE
All, except those mentioned.

9 – PERFORMANCE OF COATING IN CONTACT WITH LIQUIDS
Results for liquid resistance trials are indicated in French comment files available on request.

(*) Substrate temperature must be 3°C minimum above the dew point.

Max Perlès

sheet ex.nr.325A
Electroperl® / 1 glassmat + 1 P45

Waterproof fiberglass/epoxy coating (1)

made of:	reinforced epoxy with 900 g/sqm of fiberglass
for:	floors, walls *and* roof under-faces
in permanent or tempory contact with:	PLA : *soil* - PLB : *calcifying raw fresh-water* - PLD : *demineralized water* PLE : *sea water* - PLF : *hydrocarbons, oils* – PLH : *bases* PLJ : *radioactive effluents*
substrate:	new concrete *or* existing concrete without significant degradation

Preparation as per Technical Advice nr 1 "Specification for preparation of concrete", and as a minimum:

♦ **Obtaining**	a healthy and homogeneous (2) substrate, free from laitance, loose particles and dust, over 100 microns surface roughness, using appropriate mechanical means
♦ **Removal**	of dust with industrial vacuum cleaner
♦ **Impregnation**	of concrete with waterborne epoxy **Primer EDO** using a roller, **250 g/sqm**
♦ **Bridging (3)**	of existing cracks with a 10 cm wide plasticized adhesive tape
♦ **Rendering**	of surface defects with epoxy **Render AR100**

System Electroperl® / 1 glassmat 450 + 1 P45 – *thickness* 3 mm*:*

♦ **Uninterrupted laminate**	of fiberglass/epoxy as per *Technical Advice nr.14*, comprising: . **Electroperl®** coat for **impregnation**, using a roller, **700 microns**, **950 g/sqm** **Glassmat M4** to be unrolled, and debubblized using a special roller, **450 g/sqm** **Electroperl®** coat for **impregnation**, using a roller, **600 microns**, **800 g/sqm** **Glassfabric P45** to be unrolled, and debubblized using a special roller, **450 g/sqm** **Electroperl®** coat for **saturation**, using a roller, **500 microns**, **700 g/sqm** **Silica SBO** (or **F15**) to be sprinkled while progressing by mechanical projection, **400 g/sqm**
♦ **Checking**	as per *Technical Advice nr 3* "Performance testing" and *nr 4* "Dielectric testing"
♦ **Repair**	of defects as per *Technical Advice nr 5* "Retouching"
♦ **Topcoat**	one coat of **Electroperl®**, using airless spray or roller in 2 passes, **600 microns**, **800 g/sqm**

Application conditions: In accordance with the rules of the art and the indications of our data sheets and technical advices.

A loss factor has to be added for practical consumption, **about 15%**, according to means and methods used.

Guarantee: 10 years

Including **the resistance to existing and bridged substrate cracks of up to 20/10th mm and resistance to new cracks of up to 10/10th mm.**
Reservation: surface colour may change
This proposal is based on our XL n°FR00008519LI, products civil liability insurance policy "after delivery", within its terms and limitations
To become effective, it must have been formalised in a duly signed guarantee commitment certificate.

♦ ♦ ♦ ♦ ♦ ♦

(1) In accordance with the definition of the Annals of the Technical Institute of the Building industry and Public works - ITBTP - May 1990, for the **works of class C.**
(2) Must be eliminated entirely any coating or render or mortar of which the adherence is < 1,5 MPa, which would therefore not allow qualification as a stable and homogeneous substrate. Similarly, the **surface compactness of the concrete surface must be ≥ 1,5 MPa.**
(3) **Should not be done if there is a risk of counter-pressure by infiltration through the substrate,** except if a drainpipe system has been installed.

Max Perlès

sheet ex.nr.325B
Electroperl® / P80

Waterproof fiberglass/epoxy coating (1)

made of:	reinforced epoxy with 800 g/sqm of fiberglass
for:	floors, walls *and* roof under-faces
in permanent or tempory contact with:	PLA : *soil* - PLB: *calcifying raw fresh* - PLD : *demineralized water* PLE : *sea water* - PLF : *hydrocarbons, oils* – PLH : *bases* PLJ : *radioactive effluents*
substrate:	new concrete *or* existing concrete without significant degradation

Preparation as per Technical Advice nr 1 "Specification for preparation of concrete", and as a minimum:

♦ **Obtaining**	a healthy and homogeneous (2) substrate, free from laitance, loose particles and dust, over 100 microns surface roughness, using appropriate mechanical means
♦ **Removal**	of dust with industrial vacuum cleaner
♦ **Impregnation**	of concrete with waterborne epoxy **Primer EDO** using a roller, **250 g/sqm**
♦ **Bridging** (3)	of existing cracks with a 10 cm wide plasticized adhesive tape
♦ **Rendering**	of surface defects with epoxy **Render AR100**

System Electroperl® / P80 *– thickness* 2.6 mm*:*

♦ **Uninterrupted laminate**	of fiberglass/epoxy as per *Technical Advice nr.14*, comprising: **Electroperl®** coat for **impregnation**, using a roller, **700 microns**, **950 g/sqm** **Glassfabric P80** to be unrolled, and debubblized using a special roller, **800 g/sqm** **Electroperl®** coat for **saturation**, using a roller, **500 microns**, **700 g/sqm** **Silica SB0** (or **F15**) to be sprinkled while progressing by mechanical projection, **400 g/sqm**
♦ **Checking**	as per *Technical Advice nr 3* "Performance testing" and *nr 4* "Dielectric testing"
♦ **Repair**	of defects as per *Technical Advice nr 5* "Retouching"
♦ **Topcoat**	one coat of **Electroperl®**, using airless spray or roller in 2 passes, **600 microns**, **800 g/sqm**

Application conditions: In accordance with the rules of the art and the indications of our data sheets and technical advices.

A loss factor has to be added for practical consumption, **about 15%**, according to means and methods used.

Guarantee: 10 years

Including **the resistance to existing and bridged substrate cracks of up to 20/10th mm and resistance to new cracks of up to 10/10th mm.**
Reservation: surface colour may change
This proposal is based on our XL n°FR00008519LI, products civil liability insurance policy "after delivery", within its terms and limitations
To become effective, it must have been formalised in a duly signed guarantee commitment certificate.

♦ ♦ ♦ ♦ ♦ ♦

(1) In accordance with the definition of the Annals of the Technical Institute of the Building industry and Public works - ITBTP - May 1990, for the **works of class C.**
(2) Must be eliminated entirely any coating or render or mortar of which the adherence is < 1,5 MPa, which would therefore not allow qualification as a stable and homogeneous substrate. Similarly, the **surface compactness of the concrete surface must be ≥ 1,5 MPa.**
(3) **Should not be done if there is a risk of counter-pressure by infiltration through the substrate,** except if a drainpipe system has been installed.

Max Perlès

sheet ex.nr.325C
Electroperl® / P120

Waterproof fiberglass/epoxy coating (1)

made of: reinforced epoxy with 1200 g/sqm of fiberglass

for: heavy-duty trafic areas

in permanent or tempory contact with: PLA : *floor* - PLB: *calcifying raw fresh* - PLD : *demineralized water* PLE : *sea water* - PLF : *hydrocarbons, oils* – PLH : *bases* PLJ : *radioactive effluents*

substrate: new concrete *or* existing concrete liable to present a degraded surface aspect

Preparation as per Technical Advice nr 1 "Specification for preparation of concrete", and as a minimum:

- **Obtaining** a healthy and homogeneous (2) substrate, free from laitance, loose particles and dust, over 100 microns surface roughness, using appropriate mechanical means
- **Removal** of dust with industrial vacuum cleaner
- **Impregnation** of concrete with waterborne epoxy **Primer EDO** using a roller, **250 g/sqm**
- **Rendering** of surface defects with epoxy **Render AR100**

System Electroperl® / P120 – *thickness* 3 mm*:*

- **Uninterrupted laminate** of fiberglass/epoxy as per *Technical Advice nr.14*, comprising:
  - **Electroperl®** coat for **impregnation**, using a roller, **800 microns**, **1100 g/sqm**
  - **Glassfabric P120** to be unrolled, and debubblized using a special roller, **1200 g/sqm**
  - **Electroperl®** coat for **saturation**, using a roller, **600 microns**, **800 g/sqm**
  - **Silica SB0** (or **F15**) to be sprinkled while progressing by mechanical projection, **400 g/sqm**
- **Checking** as per *Technical Advice nr 3* "Performance testing" and *nr 4* "Dielectric testing"
- **Repair** of defects as per *Technical Advice nr 5* "Retouching"
- **Topcoat** one coat of **Electroperl®**, using airless spray or roller in 2 passes, **600 microns**, **800 g/sqm**

Application conditions: In accordance with the rules of the art and the indications of our data sheets and technical advices.

A loss factor has to be added for practical consumption, **about 15%**, according to means and methods used.

Guarantee: 10 years

Including **the resistance to existing substrate cracks and resistance to new cracks of up to 20/10th mm.**
Reservation: surface colour may change
This proposal is based on our XL n°FR00008519LI, products civil liability insurance policy "after delivery", within its terms and limitations
To become effective, it must have been formalised in a duly signed guarantee commitment certificate.

♦♦♦♦♦♦

(1) In accordance with the definition of the Annals of the Technical Institute of the Building industry and Public works - ITBTP - May 1990, for the **works of class C.**
(2) Must be eliminated entirely any coating or render or mortar of which the adherence is < 1,5 MPa, which would therefore not allow qualification as a stable and homogeneous substrate. Similarly, the **surface compactness of the concrete surface must be ≥ 1,5 MPa.**
(3) **Should not be done if there is a risk of counter-pressure by infiltration through the substrate,** except if a drainpipe system has been installed.

FNP n°329 :

Reinforced ELECTROPERL systems with LP100/512 finish

Applies to :

PLA ELA 351	PLB ELB 351	PLD ELD 351	PLE ELE 351	PLF ELF 351	PLG ELG 351	PLH ELH 351

depending on specification

Max Perlès
advanced industrial linings

eDF

Technical datasheet N° *329 A* index: *09*

Date *December 14, 2020*

Manufacturer: ***max perlès et cie***
Address: *BP 80439*
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Email: *contact@maxperles.com*

For contract : ***EDF's Fichier National Peintures : FNP 329***

Codes concerned :
PLA/PLB/PLD/PLE/PLF/PLG/PLH 351
These systems can also be used for **EL** series, after checking (8.1 CCTR) and application of **Primer W** as a linking primer : See Annex 0

Name and signature of datasheet author:
François TAILLIBERT – Technical Manager

Date of Project Owner VSO (reviewed, no comments):

Name and signature of supervisor :
Franck MUTEAU – Chairman

Name and signature of VSO issuer :

SUBSTRATE	☐ STEEL and /or ☒ CONCRETE(*) and/or ☐ OTHER :			
PRODUCTS USED	Impregnation / Saturation 1st ply	Reinforcement	Saturation 2nd ply	Topcoat
Trade name	**Electroperl x 2**	**1 glass matt 450 + 1 glass fabric P45 (**)**	**Electroperl**	**LP100/512**
Colour (RAL identification)	Grey 7035		Grey 7035	Yellow 1017
Dry-film appearance	Glossy		Rough / matt	glossy
Optional or mandatory coat	Mandatory coat	Mandatory coat	Mandatory coat	Mandatory coat
1 – GENERAL CHARACTERISTICS				
Composition of mixture (%)				
Binder				
- type	Epoxy polyamine		Epoxy polyamine	Epoxy polyamine
- % by mass	72		72	63
Powder materials				
- type	Oxides + silicates		Oxides + silicates	Oxides + silicates
- % by mass	28		28	37
Solvent				
- type	None		None	None
- % by mass	-		-	-
Toxicity	See safety datasheet			
Flash point (°C):				
- Base	Electroperl Base > 90°C		Electroperl Base > 90°C	LP100/512 Base > 90°C
- Hardener	Electroperl Hardener > 90°C		Electroperl Hardener > 90°C	LP100/512 Hardener > 90°C
Density at 20°C (Kg/l)	1.32 ± 0.05		1.32 ± 0.05	1.43 ± 0.05
Non-volatile matter by mass (%)	96 – 100		96 – 100	96 – 100
Non-volatile matter by volume (%)	100		100	100
Storage temperature limits (min/max) °C	0 / 35°C		0 / 35°C	0 / 35°C
Storage humidity limits	-		-	-
Storage time in original unopened packaging at 20°C	18 months		18 months	18 months
Thickness in use (µm) ~~or consumption (g/m²)~~	600		-	600
- Minimum to seal film	510			300
- Maximum before sagging	750			1200 (***)
Maximum service temperature (°C)				
2 – APPLICATION PARAMETERS FOR RELEVANT USE				
Theoretical dry-film thickness for relevant application (µm)	←	About 2400 µm	→	600
- Minimum tolerance	-		-	-
- Maximum tolerance	-		-	-
Practical consumption (g/m²)	1000 + 800	450 + 450	700	1000
- Minimum/maximum	850-1250//680 –1000	-	595 – 875	800 - 1200
Theorical yield by volume (m²/l)	1.67 + 1.8	-	2.5	1.67

(*) Application of annex 0 technical date sheet, according to specification.
(**) **Exists also in reinforced system with 1 ply with glass fabric P80 => data sheet 329B, *and* with glass fabric P120 => data sheet 329C**
(***) According to actual reagent. Please consult us

PRODUCTS USED	Impregnation / Saturation 1st ply	Reinforcement	Saturation 2nd ply	Topcoat
3 – APPLICATION				
Atmosphere				
- Temperature limits (°C)	10 ≤ t ≤ 30		10 ≤ t ≤ 30	10 ≤ t ≤ 30
- Maximum humidity (%)	90		90	90
Substrate				
- Temperature limit (°C)	5 ≤ t ≤ 45		5 ≤ t ≤ 45	5 ≤ t ≤ 45
Concrete substrate :				
- Maximum moisture content (%)	(*)		(*)	(*)
- pH limit	-		-	-
- CSP grade	-		-	-
Steel substrate				
- surface condition	-		-	-
- Max/min roughness (µm)	-		-	-
Product :				
- Usage limit temperature for application (°C)	10 ≤ t ≤ 30		10 ≤ t ≤ 30	10 ≤ t ≤ 30
Mixing ratio and trade name of each part		☐Volume or ☒Mass		
- base % by mass	Electroperl Base : 75		Electroperl Base : 75	LP100/512 Base : 50
- hardener % by mass	Electroperl Hardener : 25		Electroperl Hardener : 25	LP100/512 Hardener : 50
Mixture usage conditions				
- Hardening time at + 10°C	None		None	None
- Maximum usage time after mixing at + 30°C.	20 minutes		20 minutes	15 minutes
Recommended application method with % thinner used	without dilution	without dilution	without dilution	without dilution
- Brush or roller	X		X	X (**)
- AIRLESS gun	-		-	X (***)
- Conventional gun	-		-	-
4 – HARDENING / DRYING				
Drying time (20°C and 50% RH)				
- For dry film thickness of (µm)	-		2400	600
- Dust free	3 hours		3 hours	3 hours
- Dry-to-handling	-		8 hours	11 hours
- Dry-to-recoat times (min/max)	Immediate		24h min with sprinkling Silica F15	-
Time to maintain hardening conditions before entry into service at 20°C	-		-	7 days /4 days-RH < 90%

5 - CLEANING OF DRY COATING – PRODUCTS USED
Conventional alkaline detergents.

6 – REPAIR METHODS:
Rebuilding of system to original state after cleaning of area to be repaired and grinding of adjacent areas. Please consult our technical advice nr.5 "Retouching"

7 - GROSS CALORIFIC VALUE:
For a total dry film thickness of 3000 µm :
GCV value for the system : Primer EDO + Render AR100 + FNP329A = 13.7 MJ/kg
GCV product : Electroperl = 24.6 MJ/kg // LP100/512 = 21.6 MJ/kg

8 – COLORS NOT POSSIBLE WITHIN THE FRAMEWORK OF THE DECLARED PERFORMANCE
All, except those mentioned.

9 – PERFORMANCE OF COATING IN CONTACT WITH LIQUIDS
Results for liquid resistance trials are indicated in French comment files available on request.

(*) Substrate temperature must be 3°C minimum above the dew point.

(**) Only for pre-touching, small or difficult to access area, with ensuring the thickness and regularity of deposit. Forward smooth with spalter.

(***) Application with airless pump has to be made with a material equipped with heating hose in order to achieve a pulverisation temperature at hose exit of mini 30°C.

Max Perlès
advanced industrial linings

EDF

Technical datasheet N° ***329 B*** index: ***09***

Date ***December 14, 2020***

Manufacturer: ***max perlès et cie***
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Email: ***contact@maxperles.com***

Name and signature of datasheet author:
François TAILLIBERT – Technical Manager

Name and signature of supervisor :
Franck MUTEAU – Chairman

For contract : ***EDF's Fichier National Peintures : FNP 329***

Codes concerned :
PLA/PLB/PLD/PLE/PLF/PLG/PLH/PLJ 351
These systems can also be used for **EL** series, after checking (8.1 CCTR) and application of **Primer W** as a linking primer : See Annex 0

Date of Project Owner VSO (reviewed, no comments):

Name and signature of VSO issuer :

SUBSTRATE	☐ STEEL and /or ☒ CONCRETE(*) and/or ☐ OTHER :			
PRODUCTS USED	Impregnation	Reinforcement	Saturation	Topcoat
Trade name	**Electroperl**	**1 glass fabric P80** (**)	**Electroperl**	**LP100/512**
Colour (RAL identification)	Grey 7035		Grey 7035	Yellow 1017
Dry-film appearance	Glossy		Rough / matt	glossy
Optional or mandatory coat	Mandatory coat		Mandatory coat	Mandatory coat
1 – GENERAL CHARACTERISTICS				
Composition of mixture (%)				
Binder				
- type	Epoxy polyamine		Epoxy polyamine	Epoxy polyamine
- % by mass	72		72	63
Powder materials				
- type	Oxides + silicates		Oxides + silicates	Oxides + silicates
- % by mass	28		28	37
Solvent				
- type	None		None	None
- % by mass	-		-	-
Toxicity	See safety datasheet			
Flash point (°C):				
- Base	Electroperl Base > 90°C		Electroperl Base > 90°C	LP100/512 Base > 90°C
- Hardener	Electroperl Hardener > 90°C		Electroperl Hardener > 90°C	LP100/512 Hardener > 90°C
Density at 20°C (Kg/l)	1.32 ± 0.05		1.32 ± 0.05	1.43 ± 0.05
Non-volatile matter by mass (%)	96 – 100		96 – 100	96 – 100
Non-volatile matter by volume (%)	100		100	100
Storage temperature limits (min/max) °C	0 / 35°C		0 / 35°C	0 / 35°C
Storage humidity limits	-		-	-
Storage time in original unopened packaging at 20°C	18 months		18 months	18 months
Thickness in use (µm) ~~or consumption (g/m²)~~	700		-	600
- Minimum to seal film	595			300
- Maximum before sagging	875			1200
Maximum service temperature (°C)	-		-	(***)
2 – APPLICATION PARAMETERS FOR RELEVANT USE	-		-	-
Theoretical dry-film thickness for relevant application (µm)	←	about 2000µm	→	600
- Minimum tolerance	-		-	-
- Maximum tolerance	-		-	-
Practical consumption (g/m²)	1100	800	800	1000
- Minimum/maximum	935 – 1375	-	680 – 1000	800 - 1200
Theorical yield by volume (m²/l)	1.43	-	2	1.67

(*) Application of annex 0 technical date sheet, according to specification.
(**) **Exists also in reinforced system with double lay with mat 450+ glass fabric P45 => data sheet 329A, *and* with glass fabric P120 => data sheet 329C**
(***) According to actual reagent. Please consult us.

PRODUCTS USED	Impregnation	Reinforcement	Saturation	Topcoat
3 – APPLICATION				
Atmosphere				
- Temperature limits (°C)	10 ≤ t ≤ 30		10 ≤ t ≤ 30	10 ≤ t ≤ 30
- Maximum humidity (%)	90		90	90
Substrate				
- Temperature limit (°C)	5 ≤ t ≤ 45		5 ≤ t ≤ 45	5 ≤ t ≤ 45
Concrete substrate :				
- Maximum moisture content (%)	(*)		(*)	(*)
-pH limit	-		-	-
- CSP grade	-		-	-
Steel substrate				
- surface condition	-		-	-
- Max/min roughness (µm)	-		-	-
Product :				
- Usage limit temperature for application (°C)	10 ≤ t ≤ 30		10 ≤ t ≤ 30	10 ≤ t ≤ 30
Mixing ratio and trade name of each part		☐Volume or	☒Mass	
- base % by mass	Electroperl Base : 75	P80	Electroperl Base : 75	LP100/512 Base : 50
- hardener % by mass	Electroperl Hardener : 25		Electroperl Hardener : 25	LP100/512 Hardener : 50
Mixture usage conditions				
- Hardening time at + 10°C	None		None	None
- Maximum usage time after mixing at + 30°C.	20 minutes		20 minutes	15 minutes
Recommended application method with % thinner used	without dilution	without dilution	without dilution	without dilution
- Brush or roller	X		X	X (**)
- AIRLESS gun	-		-	X (***)
- Conventional gun	-		-	-
4 – HARDENING / DRYING				
Drying time (20°C and 50% RH)				
- For dry film thickness of (µm)	-		2000	600
- Dust free	3 hours		3 hours	3 hours
- Dry-to-handling	-		8 hours	11 hours
- Dry-to-recoat times (min/max)	Immediate		24h min with sprinkling Silice F15	-
Time to maintain hardening conditions before entry into service at 20°C	-		-	7 days / 4 days- RH < 90%

5 - CLEANING OF DRY COATING – PRODUCTS USED
Conventional alkaline detergents.

6 – REPAIR METHODS:
Rebuilding of system to original state after cleaning of area to be repaired and grinding of adjacent areas. Please consult our technical advice nr.5 "Retouching"

7 - GROSS CALORIFIC VALUE:
For a total dry film thickness of 2600 µm :
GCV value for the system : Primer EDO + Render AR100 + FNP329B = 13.5 MJ/kg
GCV product : Electroperl = 24.6 MJ/kg // Coating LP100/512 = 21.6 MJ/kg

8 – COLORS NOT POSSIBLE WITHIN THE FRAMEWORK OF THE DECLARED PERFORMANCE
All, except those mentioned.

9 – PERFORMANCE OF COATING IN CONTACT WITH LIQUIDS
Results for liquid resistance trials are indicated in French comment files available on request.

(*) Substrate temperature must be 3°C minimum above the dew point.

(**) Only for pre-touching, small or difficult to access area, with ensuring the thickness and regularity of deposit. Forward smooth with spalter.

(***) Application with airless pump has to be made with a material equipped with heating hose in order to achieve a pulverisation temperature at hose exit of mini 30°C.

Max Perlès
advanced industrial linings

EDF

Technical datasheet N° ***329 C*** index: ***09***

Date ***December 14, 2020***

Manufacturer: ***max perlès et cie***
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Name and signature of datasheet author:
François TAILLIBERT – Technical Manager

Name and signature of supervisor :
Franck MUTEAU – Chairman

For contract : ***EDF's Fichier National Peintures : FNP 329***

Codes concerned :
PLA/PLB/PLD/PLE/PLF/PLG/PLH/PLJ 351 R
These systems can also be used for **EL** series, after checking (8.1 CCTR) and application of **Primer W** as a linking primer : See Annex 0

Date of Project Owner VSO (reviewed, no comments):

Name and signature of VSO issuer :

SUBSTRATE	☐ STEEL and /or ☒ CONCRETE(*) and/or ☐ OTHER :			
PRODUCTS USED	Impregnation	Reinforcement	Saturation	Topcoat
Trade name	**Electroperl**	**1 glass fabric P120 (**)**	**Electroperl**	**LP100/512**
Colour (RAL identification)	Grey 7035		Grey 7035	Yellow 1017
Dry-film appearance	Glossy		Rought / matt	glossy
Optional or mandatory coat	Mandatory coat		Mandatory coat	Mandatory coat
1 – GENERAL CHARACTERISTICS				
Composition of mixture (%)				
Binder				
- type	Epoxy polyamine		Epoxy polyamine	Epoxy polyamine
- % by mass	72		72	63
Powder materials				
- type	Oxides + silicates		Oxides + silicates	Oxides + silicates
- % by mass	28		28	37
Solvent				
- type	None		None	None
- % by mass	-		-	-
Toxicity	See safety datasheet			
Flash point (°C):				
- Base	Electroperl Base > 90°C		Electroperl Base > 90°C	LP100/512 Base > 90°C
- Hardener	Electroperl Hardener > 90°C		Electroperl Hardener > 90°C	LP100/512 Hardener > 90°C
Density at 20°C (Kg/l)	1.32 ± 0.05		1.32 ± 0.05	1.43 ± 0.05
Non-volatile matter by mass (%)	96 – 100		96 – 100	96 – 100
Non-volatile matter by volume (%)	100		100	100
Storage temperature limits (min/max) °C	0 / 35°C		0 / 35°C	0 / 35°C
Storage humidity limits	-		-	-
Storage time in original unopened packaging at 20°C	18 months		18 months	18 months
Thickness in use (µm) ~~or consumption (g/m²)~~	800		-	600
- Minimum to seal film	680			300
- Maximum before sagging	1000			1200
Maximum service temperature (°C)	-		-	(***)
2 – APPLICATION PARAMETERS FOR RELEVANT USE				
Theoretical dry-film thickness for relevant application (µm)	←	about 2400µm	→	600
- Minimum tolerance				
- Maximum tolerance				
Practical consumption (g/m²)	1300	1200	1000	1000
- Minimum/maximum	1105 – 1625	-	850 – 1250	800 - 1200
Theorical yield by volume (m²/l)	1.25	-	1.6	1.67

(*) Application of annex 0 technical date sheet, according to specification.
(**) **Exists also in reinforced system with double lay with mat 450+ glass fabric P45 => data sheet 329A, *and* with glass fabric P80 => data sheet 329B**
(***) According to actual reagent. Please consult us.

PRODUCTS USED	Impregnation	Reinforcement	Saturation	Topcoat
3 – APPLICATION				
Atmosphere				
- Temperature limits (°C)	10 ≤ t ≤ 30		10 ≤ t ≤ 30	10 ≤ t ≤ 30
- Maximum humidity (%)	90		90	90
Substrate				
- Temperature limit (°C)	5 ≤ t ≤ 45		5 ≤ t ≤ 45	5 ≤ t ≤ 45
Concrete substrate :				
- Maximum moisture content (%)	(*)		(*)	(*)
- pH limit	-		-	-
- CSP grade	-		-	-
Steel substrate				
- surface condition	-		-	-
- Max/min roughness (µm)	-		-	-
Product :				
- Usage limit temperature for application (°C)	10 ≤ t ≤ 30		10 ≤ t ≤ 30	10 ≤ t ≤ 30
Mixing ratio and trade name of each part		☐Volume or	☒Mass	
- base % by mass	Electroperl Base : 75		Electroperl Base : 75	LP100/512 Base : 50
- hardener % by mass	Electroperl Hardener : 25		Electroperl Hardener : 25	LP100/512 Hardener : 50
Mixture usage conditions				
- Hardening time at + 10°C	None		None	None
- Maximum usage time after mixing at + 30°C.	20 minutes		20 minutes	15 minutes
Recommended application method with % thinner used	without dilution	without dilution	without dilution	without dilution
- Brush or roller	X		X	X (**)
- AIRLESS gun	-		-	X (***)
- Conventional gun	-		-	-
4 – HARDENING / DRYING				
Drying time (20°C and 50% RH)				
- For dry film thickness of (µm)	-		2000	600
- Dust free	3 hours		3 hours	3 hours
- Dry-to-handling	-		8 hours	11 hours
- Dry-to-recoat times (min/max)	Immediate		24h min with sprinkling Silice F15	-
Time to maintain hardening conditions before entry into service at 20°C	-		-	7 days / 4 days- RH < 90%

5 - CLEANING OF DRY COATING – PRODUCTS USED
Conventional alkaline detergents.

6 – REPAIR METHODS:
Rebuilding of system to original state after cleaning of area to be repaired and grinding of adjacent areas. Please consult our technical advice nr.5 "Retouching"

7 - GROSS CALORIFIC VALUE:
For a total dry film thickness of 3000 µm :
GCV value for the system : Primer EDO + Render AR100 + FNP329C = 13.58 MJ/kg
GCV product : Electroperl = 24.6 MJ/kg // Coating LP100/512 = 21.6 MJ/kg

8 – COLORS NOT POSSIBLE WITHIN THE FRAMEWORK OF THE DECLARED PERFORMANCE
All, except those mentioned.

9 – PERFORMANCE OF COATING IN CONTACT WITH LIQUIDS
Results for liquid resistance trials are indicated in French comment files available on request.

(*) Substrate temperature must be 3°C minimum above the dew point.

(**) Only for pre-touching, small or difficult to access area, with ensuring the thickness and regularity of deposit. Forward smooth with spalter.

(***) Application with airless pump has to be made with a material equipped with heating hose in order to achieve a pulverisation temperature at hose exit of mini 30°C.

Max Perlès

sheet ex.nr.329A
Electroperl® / 1 glassmat + 1 P45, topcoat LP100/512

Waterproof fiberglass/epoxy coating (1)

made of:	reinforced epoxy with 900 g/sqm of fiberglass + specific topcoat
for:	floors, walls *and* roof under-faces
in permanent or tempory contact with :	PLA : *soil* - PLB: *calcifying raw fresh* PLD : *demineralized water* - PLE : *sea water* PLF : *hydrocarbons, oils* – PLG : *acids* - PLH: *bases*
substrate:	new concrete *or* existing concrete without significant degradation

Preparation as per Technical Advice nr 1 «Specification for preparation of concrete», and as a minimum:

♦ **Obtaining**	a healthy and homogeneous (2) substrate, free from laitance, loose particles and dust, over 100 microns surface roughness, using appropriate mechanical means
♦ **Removal**	of dust with industrial vacuum cleaner
♦ **Impregnation**	of concrete with waterborne epoxy **Primer EDO** using a roller, **250 g/sqm**
♦ **Bridging** (3)	of existing cracks with a 10 cm wide plasticized adhesive tape
♦ **Rendering**	of surface defects with epoxy **Render AR100**

System Electroperl® / 1 glassmat 450 + 1 P45 / LP100/512 – *thickness* 3 mm*:*

♦ **Uninterrupted laminate**	of fiberglass/epoxy as per *Technical Advice nr 14*, comprising: **Electroperl®** coat for **impregnation**, using a roller,**700 microns**, **950 g/sqm** **Glassmat M4** to be unrolled, and debubblized using a special roller, **450 g/sqm** **Electroperl®** coat for **impregnation**, using a roller, **600 microns**, **800 g/sqm** **Glassfabric P45** to be unrolled, and debubblized using a special roller, **450 g/sqm** **Electroperl®**, coat for **saturation**, using a roller, **500 microns**, **700 g/sqm** **Silica SB0** (or **F15**) to be sprinkled while progressing by mechanical projection, **400 g/sqm**
♦ **Checking**	as per *Technical Advice nr 3* "Performance testing" and *nr 4* "Dielectric testing"
♦ **Repair**	of defects as per *Technical Advice nr 5* "Retouching"
♦ **Topcoat**	one coat of **LP100/512**, using airless spray,**600 microns**, **900 g/sqm**

Application conditions: In accordance with the rules of the art and the indications of our data sheets and technical advices.

A loss factor has to be added for practical consumption, **about 15%**, according to means and methods used.

Guarantee: 10 years

Including **the resistance to existing and bridged substrate cracks of up to 20/10th mm and resistance to new cracks of up to 10/10th mm.**
Reservation: surface colour may change
This proposal is based on our XL n°FR00008519LI, products civil liability insurance policy "after delivery", within its terms and limitations
To become effective, it must have been formalised in a duly signed guarantee commitment certificate.

♦ ♦ ♦ ♦ ♦ ♦

(1) In accordance with the definition of the Annals of the Technical Institute of the Building industry and Public works - ITBTP - May 1990, for the **works of class C.**
(2) Must be eliminated entirely any coating or render or mortar of which the adherence is < 1,5 MPa, which would therefore not allow qualification as a stable and homogeneous substrate. Similarly, the **surface compactness of the concrete surface must be ≥ 1,5 MPa.**
(3) **Should not be done if there is a risk of counter-pressure by infiltration through the substrate,** except if a drainpipe system has been installed.

Max Perlès

sheet ex.nr.329B
Electroperl® / P80, topcoat LP100/512

Waterproof fiberglass/epoxy coating (1)

made of: reinforced epoxy with 800 g/sqm of fiberglass + specific topcoat

for: floors, walls *and* roof under-faces

in permanent or tempory contact with : PLA : *soil* - PLB: *calcifying raw fresh*
PLD : *demineralized water* - PLE : *sea water*
PLF : *hydrocarbons, oils* – PLG : *acids* - PLH: *bases*

substrate: new concrete *or* existing concrete without significant degradation

Preparation as per Technical Advice nr 1 «Specification for preparation of concrete», and as a minimum:

- **Obtaining** a healthy and homogeneous (2) substrate, free from laitance, loose particles and dust, over 100 microns surface roughness, using appropriate mechanical means
- **Removal** of dust with industrial vacuum cleaner
- **Impregnation** of concrete with waterborne epoxy **Primer EDO** using a roller, **250 g/sqm**
- **Bridging** (3) of existing cracks with a 10 cm wide plasticized adhesive tape
- **Rendering** of surface defects with epoxy **Render AR100**

System Electroperl® / P80 *with* LP 100/512 *topcoat – thickness* 2.6 mm*:*

- **Uninterrupted laminate** of fiberglass/epoxy as per *Technical Advice nr 14*, comprising:
  Electroperl® coat for **impregnation**, using a roller,**700 microns**, **950 g/sqm**
  Glassfabric P80 to be unrolled, and debubblized using a special roller, **800 g/sqm**
  Electroperl®, coat for **saturation**, using a roller, **500 microns**, **700 g/sqm**
  Silica SB0 (or **F15**) to be sprinkled while progressing by mechanical projection, **400 g/sqm**
- **Checking** as per *Technical Advice nr 3* "Performance testing" and *nr 4* "Dielectric testing"
- **Repair** of defects as per *Technical Advice nr 5* "Retouching"
- **Topcoat** one coat of **LP100/512**, using airless pump, **600 microns**, **900 g/sqm**

Application conditions: In accordance with the rules of the art and the indications of our data sheets and technical advices.

A loss factor has to be added for practical consumption, **about 15%**, according to means and methods used.

Guarantee: 10 years

Including **the resistance to existing and bridged substrate cracks of up to 20/10th mm and resistance to new cracks of up to 10/10th mm.**
Reservation: surface colour may change
This proposal is based on our XL n°FR00008519LI, products civil liability insurance policy "after delivery", within its terms and limitations
To become effective, it must have been formalised in a duly signed guarantee commitment certificate.

♦ ♦ ♦ ♦ ♦ ♦

(1) In accordance with the definition of the Annals of the Technical Institute of the Building industry and Public works - ITBTP - May 1990, for the **works of class C.**
(2) Must be eliminated entirely any coating or render or mortar of which the adherence is < 1,5 MPa, which would therefore not allow qualification as a stable and homogeneous substrate. Similarly, the **surface compactness of the concrete surface must be ≥ 1,5 MPa.**
(3) **Should not be done if there is a risk of counter-pressure by infiltration through the substrate,** except if a drainpipe system has been installed.

Max Perlès

sheet ex.nr.329C
Electroperl® / P120, topcoat LP100/512

Waterproof fiberglass/epoxy coating (1)

made of:	reinforced epoxy with 1200 g/sqm of fiberglass + specific topcoat
for:	heavy-duty trafic areas
in permanent or tempory contact with :	PLA : *soil* - PLB: *calcifying raw fresh* PLD : *demineralized water* - PLE : *sea water* PLF : *hydrocarbons, oils* – PLG : *acids* - PLH: *bases*
substrate:	new concrete *or* existing concrete liable to present a degraded surface aspect

Preparation as per Technical Advice nr 1 «Specification for preparation of concrete», and as a minimum:

♦ Obtaining	a healthy and homogeneous (2) substrate, free from laitance, loose particles and dust, over 100 microns surface roughness, using appropriate mechanical means
♦ Removal	of dust with industrial vacuum cleaner
♦ Impregnation	of concrete with waterborne epoxy Primer EDO using a roller, 250 g/sqm
♦ Rendering	of surface defects with epoxy Render AR100

System Electroperl® / P120 *with* LP100/512 *topcoat – thickness* 3 mm*:*

♦ Uninterrupted laminate	of fiberglass/epoxy as per *Technical Advice nr 14*, comprising: Electroperl® coat for **impregnation**, using a roller,**800 microns**, **1100 g/sqm** Glassfabric P120 to be unrolled, and debubblized using a special roller, **1200 g/sqm** Electroperl®, coat for **saturation**, using a roller, **600 microns**, **800 g/sqm** Silica SB0 (or F15) to be sprinkled while progressing by mechanical projection, **400 g/sqm**
♦ Checking	as per *Technical Advice nr 3* "Performance testing" and *nr 4* "Dielectric testing"
♦ Repair	of defects as per *Technical Advice nr 5* "Retouching"
♦ Topcoat	one coat of LP100/512, using airless pump, 600 microns, 900 g/sqm

Application conditions: In accordance with the rules of the art and the indications of our data sheets and technical advices.

A loss factor has to be added for practical consumption, **about 15%**, according to means and methods used.

Guarantee: 10 years

Including **the resistance to existing substrate cracks and resistance to new cracks of up to 20/10th mm.**
Reservation: surface colour may change
This proposal is based on our XL n°FR00008519LI, products civil liability insurance policy "after delivery", within its terms and limitations
To become effective, it must have been formalised in a duly signed guarantee commitment certificate.

♦♦♦♦♦♦

(1) In accordance with the definition of the Annals of the Technical Institute of the Building industry and Public works - ITBTP - May 1990, for the **works of class C.**
(2) Must be eliminated entirely any coating or render or mortar of which the adherence is < 1,5 MPa, which would therefore not allow qualification as a stable and homogeneous substrate. Similarly, the **surface compactness of the concrete surface must be ≥ 1,5 MPa.**
(3) **Should not be done if there is a risk of counter-pressure by infiltration through the substrate,** except if a drainpipe system has been installed.

FNP n°1008 :

Reinforced ELECTROPERL system with A -type reinforcement and SV101 finish

Applies to :

PLA ELA 351	PLB ELB 351	PLD ELD 351	PLE ELE 351	PLF ELF 351	PLG ELG 351	PLH ELH 351	PLJ ELJ 351

depending on specification

Max Perlès
advanced industrial linings

EDF

Technical datasheet N° *333 A* index: *08*

Date *December 14, 2020*

Manufacturer: ***max perlès et cie***
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Name and signature of datasheet author:
François TAILLIBERT – Technical Manager

Name and signature of supervisor :
Franck MUTEAU – Chairman

For contract : ***EDF's Fichier National Peintures : FNP 1008***

Codes concerned :
PLA/PLB/PLD/PLE/PLF/PLG/PLH/PLJ 351
These systems can also be used for **EL** series, after checking (8.1 CCTR) and application of **Primer W** as a linking primer : See Annex 0

Date of Project Owner VSO (reviewed, no comments):

Name and signature of VSO issuer :

SUBSTRATE	☐ STEEL and /or ☒ CONCRETE(*) and/or ☐ OTHER :			
PRODUCTS USED	Impregnation / Saturation 1st ply	Reinforcement	Saturation 2nd ply	Topcoat
Trade name	**Electroperl x 2**	**1 glass matt 450 + 1 glass fabric P45 (**)**	**Electroperl**	**Gelcoat SV101**
Colour (RAL identification)	Grey 7035		Grey 7035	Light Ivory 1015
Dry-film appearance	Glossy		Rough / matt	glossy
Optional or mandatory coat	Mandatory coat	Mandatory coat	Mandatory coat	Mandatory coat
1 – GENERAL CHARACTERISTICS				
Composition of mixture (%)				
Binder				
- type	Epoxy polyamine		Epoxy polyamine	Epoxy polyamine
- % by mass	72		72	70
Powder materials				
- type	Oxides + silicates		Oxides + silicates	Oxides + silicates
- % by mass	28		28	30
Solvent				
- type	None		None	None
- % by mass	-		-	-
Toxicity	See safety datasheet			
Flash point (°C):				
- Base	Electroperl Base > 90°C		Electroperl Base > 90°C	Gelcoat SV101 Base > 90°C
- Hardener	Electroperl Hardener > 90°C		Electroperl Hardener > 90°C	Gelcoat SV101 Hardener > 90°C
Density at 20°C (Kg/l)	1.32 ± 0.05		1.32 ± 0.05	1.30 ± 0.05
Non-volatile matter by mass (%)	96 – 100		96 – 100	96 – 100
Non-volatile matter by volume (%)	100		100	100
Storage temperature limits (min/max) °C	0 / 35°C		0 / 35°C	0 / 35°C
Storage humidity limits	-		-	-
Storage time in original unopened packaging at 20°C	18 months		18 months	18 months
Thickness in use (µm) ~~or consumption (g/m²)~~	600		-	600
- Minimum to seal film	510		-	150
- Maximum before sagging	750		-	850
Maximum service temperature (°C)	-		-	(***)
2 – APPLICATION PARAMETERS FOR RELEVANT USE				
Theoretical dry-film thickness for relevant application (µm)	←	About 2400 µm	→	600
- Minimum tolerance	-		-	-
- Maximum tolerance	-		-	-
Practical consumption (g/m²)	1000 + 800	450 + 450	700	900
- Minimum/maximum	850-1250//680 –1000	-	595 – 875	720 - 1080
Theorical yield by volume (m²/l)	1.67 + 1.8	-	2.5	1.67(****)

(*) Application of annex 0 technical date sheet, according to specification.
(**) **Exists also in reinforced system with 1 ply with glass fabric P80 => data sheet 333B (FNP1009), *and* with glass fabric P120 => data sheet 333C (FNP1010)**
(***) According to actual reagent. Please consult us
(****) Possible application in 2 coats of 300 microns, the 2nd on top the 1st one still tacky, or sprinkled with silica F15 : see CCTR / SCW in application.

PRODUCTS USED	Impregnation / Saturation 1st ply	Reinforcement	Saturation 2nd ply	Topcoat
3 – APPLICATION				
Atmosphere				
- Temperature limits (°C)	10 ≤ t ≤ 30		10 ≤ t ≤ 30	10 ≤ t ≤ 30
- Maximum humidity (%)	90		90	90
Substrate				
- Temperature limit (°C)	5 ≤ t ≤ 45		5 ≤ t ≤ 45	5 ≤ t ≤ 45
Concrete substrate :				
- Maximum moisture content (%)	(*)		(*)	(*)
-pH limit	-		-	-
- CSP grade	-		-	-
Steel substrate				
- surface condition	-		-	-
- Max/min roughness (µm)	-		-	-
Product :				
- Usage limit temperature for application (°C)	10 ≤ t ≤ 30		10 ≤ t ≤ 30	10 ≤ t ≤ 30
Mixing ratio and trade name of each part		☐Volume or ☒Mass		
- base % by mass	Electroperl Base : 75		Electroperl Base : 75	Gelcoat SV101 Base : 50
- hardener % by mass	Electroperl Hardener : 25		Electroperl Hardener : 25	Gelcoat SV101 Hardener : 50
Mixture usage conditions				
- Hardening time at + 10°C	None		None	None
- Maximum usage time after mixing at + 30°C.	20 minutes		20 minutes	15 minutes
Recommended application method with % thinner used	without dilution		without dilution	without dilution
- Brush or roller	X		X	X
- AIRLESS gun	-		-	X
- Conventional gun	-		-	-
4 – HARDENING / DRYING				
Drying time (20°C and 50% RH)				
- For dry film thickness of (µm)	-		2400	600
- Dust free	3 hours		3 hours	2 hours
- Dry-to-handling	-		8 hours	24 hours
- Dry-to-recoat times (min/max)	Immediate		24h min with sprinkling Silica F15	2 h / 6 h
Time to maintain hardening conditions before entry into service at 20°C	-		-	7 days /4 days-RH < 90%

5 - CLEANING OF DRY COATING – PRODUCTS USED
Conventional alkaline detergents.

6 – REPAIR METHODS:
Rebuilding of system to original state after cleaning of area to be repaired and grinding of adjacent areas. Please consult our technical advice nr.5 "Retouching"

7 - GROSS CALORIFIC VALUE:
For a total dry film thickness of 3000 µm :
GCV value for the system : Primer EDO + Render AR100 + FNP1008 = 14.1 MJ/kg
GCV product : Electroperl = 24.6 MJ/kg // Gelcoat SV101 = 23.3 MJ/kg

8 – COLORS NOT POSSIBLE WITHIN THE FRAMEWORK OF THE DECLARED PERFORMANCE
All, except those mentioned.

9 – PERFORMANCE OF COATING IN CONTACT WITH LIQUIDS
Results for liquid resistance trials are indicated in French comment files available on request.

(*) Substrate temperature must be 3°C minimum above the dew point.

Max Perlès

sheet ex.nr.1008

Electroperl® / 1 glassmat + 1 P45, topcoat Gelcoat SV101

Waterproof fiberglass/epoxy coating (1)

made of:	reinforced epoxy with 900 g/sqm of fiberglass + specific topcoat
for:	floors, walls *and* roof under-faces
in permanent or tempory contact with :	PLA : *soil* - PLB: *calcifying raw fresh* - PLD : *demineralized water* PLE : *sea water* - PLF : *hydrocarbons, oils* PLG : *acids* - PLH: *bases*
substrate:	new concrete *or* existing concrete without significant degradation

Preparation as per Technical Advice nr 1 «Specification for preparation of concrete», and as a minimum:

♦ **Obtaining**	a healthy and homogeneous (2) substrate, free from laitance, loose particles and dust, over 100 microns surface roughness, using appropriate mechanical means
♦ **Removal**	of dust with industrial vacuum cleaner
♦ **Impregnation**	of concrete with waterborne epoxy **Primer EDO** using a roller, **250 g/sqm**
♦ **Bridging** (3)	of existing cracks with a 10 cm wide plasticized adhesive tape
♦ **Rendering**	of surface defects with epoxy **Render AR100**

System Electroperl® / 1 Glassmat 450 + 1 P45 /Gelcoat SV101– *thickness* 3 mm :

♦ **Uninterrupted laminate**	of fiberglass/epoxy as per *Technical Advice nr 14*, comprising: **Electroperl®** coat for **impregnation**, using a roller,**700 microns**, **950 g/sqm** **Glassmat M4** to be unrolled, and debubblized using a special roller, **450 g/sqm** **Electroperl®** coat for **impregnation**, using a roller, **600 microns**, **800 g/sqm** **Glassfabric P45** to be unrolled, and debubblized using a special roller, **450 g/sqm** **Electroperl®**, coat for **saturation**, using a roller, **500 microns**, **700 g/sqm** **Silica SB0** (or **F15**) to be sprinkled while progressing by mechanical projection, **400 g/sqm**
♦ **Checking**	as per *Technical Advice nr 3* "Performance testing" and *nr 4* "Dielectric testing"
♦ **Repair**	of defects as per *Technical Advice nr 5* "Retouching"
♦ **Topcoat**	novolac-epoxy **Gelcoat SV101** divided in 2 passes, using a medium bristle roller/flat brush, **600 microns**, **800 g/sqm**

Application conditions: In accordance with the rules of the art and the indications of our data sheets and technical advices.

A loss factor has to be added for practical consumption, **about 15%**, according to means and methods used.

Guarantee: 10 years

Including **the resistance to existing and bridged substrate cracks of up to 20/10th mm and resistance to new cracks of up to 10/10th mm.**
Reservation: surface colour may change
This proposal is based on our XL n°FR00008519LI, products civil liability insurance policy "after delivery", within its terms and limitations
To become effective, it must have been formalised in a duly signed guarantee commitment certificate.

♦ ♦ ♦ ♦ ♦ ♦

(1) In accordance with the definition of the Annals of the Technical Institute of the Building industry and Public works - ITBTP - May 1990, for the **works of class C.**
(2) Must be eliminated entirely any coating or render or mortar of which the adherence is < 1,5 MPa, which would therefore not allow qualification as a stable and homogeneous substrate. Similarly, the **surface compactness of the concrete surface must be ≥ 1,5 MPa.**
(3) **Should not be done if there is a risk of counter-pressure by infiltration through the substrate,** except if a drainpipe system has been installed.

FNP n°1009 :

Reinforced ELECTROPERL system with B -type reinforcement and SV101 finish

Applies to :

PLA ELA 351	PLB ELB 351	PLD ELD 351	PLE ELE 351	PLF ELF 351	PLG ELG 351	PLH ELH 351	PLJ ELJ 351

depending on specification

Max Perlès
advanced industrial linings

EDF

Technical datasheet N° ***333 B*** index: ***08***

Date ***December 14, 2020***

Manufacturer: ***max perlès et cie***
Address: ***BP 80439***
60119 Hénonville Cedex
Phone: ***+33 (0)3 44 49 86 22***
Email: ***contact@maxperles.com***

Name and signature of datasheet author:
François TAILLIBERT – Technical Manager

Name and signature of supervisor :
Franck MUTEAU – Chairman

For contract : ***EDF's Fichier National Peintures : FNP 1009***

Codes concerned :
PLA/PLB/PLD/PLE/PLF/PLG/PLH/PLJ 351
These systems can also be used for **EL** series, after checking (8.1 CCTR) and application of **Primer W** as a linking primer : See Annex 0

Date of Project Owner VSO (reviewed, no comments):

Name and signature of VSO issuer :

SUBSTRATE	☐ STEEL and /or ☒ CONCRETE(*) and/or ☐ OTHER :			
PRODUCTS USED	Impregnation	Reinforcement	Saturation	Topcoat
Trade name	**Electroperl**	**1 glass fabric P80** (**)	**Electroperl**	**Gelcoat SV101**
Colour (RAL identification)	Grey 7035		Grey 7035	Light Ivory 1015
Dry-film appearance	Glossy		Rough / matt	Glossy
Optional or mandatory coat	mandatory coat		mandatory coat	mandatory coat
1 – GENERAL CHARACTERISTICS				
Composition of mixture (%)				
Binder				
- type	Epoxy polyamine		Epoxy polyamine	Epoxy polyamine
- % by mass	72		72	70
Powder materials				
- type	Oxides + silicates		Oxides + silicates	Oxides + silicates
- % by mass	28		28	30
Solvent				
- type	None		None	None
- % by mass	-		-	-
Toxicity	See safety datasheet			
Flash point (°C):				
- Base	Electroperl Base > 90°C		Electroperl Base > 90°C	Gelcoat SV101 Base > 90°C
- Hardener	Electroperl Hardener > 90°C		Electroperl Hardener > 90°C	Gelcoat SV101 Hardener > 90°C
Density at 20°C (Kg/l)	1.32 ± 0.05		1.32 ± 0.05	1.30 ± 0.05
Non-volatile matter by mass (%)	96 – 100		96 – 100	96 – 100
Non-volatile matter by volume (%)	100		100	100
Storage temperature limits (min/max) °C	0 / 35°C		0 / 35°C	0 / 35°C
Storage humidity limits	-		-	-
Storage time in original unopened packaging at 20°C	18 months		18 months	18 months
Thickness in use (µm) ~~or consumption (g/m²)~~	700		-	600
- Minimum to seal film	595			150
- Maximum before sagging	875			850 (***)
Maximum service temperature (°C)				
2 – APPLICATION PARAMETERS FOR RELEVANT USE				
Theoretical dry-film thickness for relevant application (µm)	←	about 2000µm	→	600
- Minimum tolerance	-		-	300
- Maximum tolerance	-		-	-
Practical consumption (g/m²)	1100	800	800	900
- Minimum/maximum	935 – 1375	-	680 – 1000	720 - 1080
Theorical yield by volume (m²/l)	1.43	-	2	1.67(****)

(*) Application of annex 0 technical date sheet, according to specification.

(**) **Exists also in reinforced system with double lay with mat 450+ glass fabric P45 => data sheet 333A (FNP1008), *and* with glass fabric P120 => data sheet 333C (FNP1010)**

(***) According to actual reagent. Please consult us.

(****) Possible application in 2 coats of 300 microns, the 2nd on top the 1st one still tacky, or sprinkled with silica F15 : see CCTR / SCW in application.

PRODUCTS USED	Impregnation	Reinforcement	Saturation	Topcoat
3 – APPLICATION				
Atmosphere				
- Temperature limits (°C)	10 ≤ t ≤ 30		10 ≤ t ≤ 30	10 ≤ t ≤ 30
- Maximum humidity (%)	90		90	90
Substrate				
- Temperature limit (°C)	5 ≤ t ≤ 45		5 ≤ t ≤ 45	5 ≤ t ≤ 45
Concrete substrate :				
- Maximum moisture content (%)	(*)		(*)	(*)
-pH limit	-		-	-
- CSP grade	-		-	-
Steel substrate				
- surface condition	-		-	-
- Max/min roughness (µm)	-		-	-
Product :				
- Usage limit temperature for application (°C)	10 ≤ t ≤ 30		10 ≤ t ≤ 30	10 ≤ t ≤ 30
Mixing ratio and trade name of each part		☐Volume or	☒Mass	
- base % by mass	Electroperl Base : 75	P80	Electroperl Base : 75	Gelcoat SV101 Base : 50
- hardener % by mass	Electroperl Hardener : 25		Electroperl Hardener : 25	Gelcoat SV101 Hardener : 50
Mixture usage conditions				
- Hardening time at + 10°C	None		None	None
- Maximum usage time after mixing at + 30°C.	20 minutes		20 minutes	15 minutes
Recommended application method with % thinner used	without dilution		without dilution	without dilution
- Brush or roller	X		X	X
- AIRLESS gun	-		-	X
- Conventional gun	-		-	-
4 – HARDENING / DRYING				
Drying time (20°C and 50% RH)				
- For dry film thickness of (µm)	-		2000	600
- Dust free	3 hours		3 hours	2 hours
- Dry-to-handling	-		8 hours	24 hours
- Dry-to-recoat times (min/max)	Immediate		24h min with sprinkling Silice F15	2 h / 6 h
Time to maintain hardening conditions before entry into service at 20°C	-		-	7 days / 4 days-RH < 90%

5 - CLEANING OF DRY COATING – PRODUCTS USED
Conventional alkaline detergents.

6 – REPAIR METHODS:
Rebuilding of system to original state after cleaning of area to be repaired and grinding of adjacent areas. Please consult our technical advice nr.5 "Retouching"

7 - GROSS CALORIFIC VALUE:
For a total dry film thickness of 2600 µm :
GCV value for the system : Primer EDO + Render AR100 + FNP1009 = 13.9 MJ/kg
GCV product : Electroperl = 24.6 MJ/kg // Gelcoat SV101 = 23.3 MJ/kg

8 – COLORS NOT POSSIBLE WITHIN THE FRAMEWORK OF THE DECLARED PERFORMANCE
All, except those mentioned.

9 – PERFORMANCE OF COATING IN CONTACT WITH LIQUIDS
Results for liquid resistance trials are indicated in French comment files available on request.

(*) Substrate temperature must be 3°C minimum above the dew point.

Max Perlès

sheet ex.nr.1009
Electroperl® / P80, topcoat Gelcoat SV101

Waterproof fiberglass/epoxy coating (1)

made of: reinforced epoxy with 800 g/sqm of fiberglass + specific topcoat

for: floors, walls *and* roof under-faces

in permanent or tempory contact with : PLA : *soil* - PLB: *calcifying raw fresh* - PLD : *demineralized water* PLE : *sea water* - PLF : *hydrocarbons, oils* PLG : *acids* - PLH: *bases*

substrate: new concrete *or* existing concrete without significant degradation

Preparation as per Technical Advice nr 1 «Specification for preparation of concrete», and as a minimum:

♦ **Obtaining**	a healthy and homogeneous (2) substrate, free from laitance, loose particles and dust, over 100 microns surface roughness, using appropriate mechanical means
♦ **Removal**	of dust with industrial vacuum cleaner
♦ **Impregnation**	of concrete with waterborne epoxy **Primer EDO** using a roller, **250 g/sqm**
♦ **Bridging** (3)	of existing cracks with a 10 cm wide plasticized adhesive tape
♦ **Rendering**	of surface defects with epoxy **Render AR100**

System Electroperl® / P80 *with* Gelcoat SV101 *topcoat – thickness* 2.6 mm*:*

♦ **Uninterrupted laminate**	of fiberglass/epoxy as per *Technical Advice nr 14*, comprising: **Electroperl®** coat for **impregnation**, using a roller,**700 microns**, **950 g/sqm** **Glassfabric P80** to be unrolled, and debubblized using a special roller, **800 g/sqm** **Electroperl®**, coat for **saturation**, using a roller, **500 microns**, **700 g/sqm** **Silica SBO** (or **F15**) to be sprinkled while progressing by mechanical projection, **400 g/sqm**
♦ **Checking**	as per *Technical Advice nr 3* "Performance testing" and *nr 4* "Dielectric testing"
♦ **Repair**	of defects as per *Technical Advice nr 5* "Retouching"
♦ **Topcoat**	novolac-epoxy **Gelcoat SV101** divided in 2 passes, using a medium bristle roller/flat brush, **600 microns**, **800 g/sqm**

Application conditions: In accordance with the rules of the art and the indications of our data sheets and technical advices.

A loss factor has to be added for practical consumption, **about 15%**, according to means and methods used.

Guarantee: 10 years

Including **the resistance to existing and bridged substrate cracks of up to 20/10th mm and resistance to new cracks of up to 10/10th mm.**
Reservation: surface colour may change
This proposal is based on our XL n°FR00008519LI, products civil liability insurance policy "after delivery", within its terms and limitations
To become effective, it must have been formalised in a duly signed guarantee commitment certificate.

♦♦♦♦♦♦

(1) In accordance with the definition of the Annals of the Technical Institute of the Building industry and Public works - ITBTP - May 1990, for the **works of class C.**
(2) Must be eliminated entirely any coating or render or mortar of which the adherence is < 1,5 MPa, which would therefore not allow qualification as a stable and homogeneous substrate. Similarly, the **surface compactness of the concrete surface must be ≥ 1,5 MPa.**
(3) **Should not be done if there is a risk of counter-pressure by infiltration through the substrate,** except if a drainpipe system has been installed.

FNP n°1010 :

Reinforced ELECTROPERL system with C - type reinforcement and SV101 finish

Applies to :

PLA ELA 351	PLB ELB 351	PLD ELD 351	PLE ELE 351	PLF ELF 351	PLG ELG 351	PLH ELH 351	PLJ ELJ 351

depending on specification

Max Perlès
advanced industrial linings

EDF

Technical datasheet N° ***333 C*** index: ***08***

Date ***December 14, 2020***

Manufacturer: ***max perlès et cie***
Address: ***BP 80439***
60119 Hénonville Cedex
Phone: ***+33 (0)3 44 49 86 22***
Email: ***contact@maxperles.com***

Name and signature of datasheet author:
François TAILLIBERT – Technical Manager

Name and signature of supervisor :
Franck MUTEAU – Chairman

For contract : ***EDF's Fichier National Peintures : FNP 1010***

Codes concerned :
PLA/PLB/PLD/PLE/PLF/PLG/PLH/PLJ 351 R
These systems can also be used for **EL** series, after checking (8.1 CCTR) and application of **Primer W** as a linking primer : See Annex 0

Date of Project Owner VSO (reviewed, no comments):

Name and signature of VSO issuer :

SUBSTRATE	☐ STEEL and /or ☒ CONCRETE(*) and/or ☐ OTHER :			
PRODUCTS USED	Impregnation	Reinforcement	Saturation	Topcoat
Trade name	**Electroperl**	**1 glass fabric P120 (**)**	**Electroperl**	**Gelcoat SV101**
Colour (RAL identification)	Grey 7035		Grey 7035	Light Ivory 1015
Dry-film appearance	Glossy		Rough / matt	glossy
Optional or mandatory coat	mandatory coat		mandatory coat	mandatory coat
1 – GENERAL CHARACTERISTICS				
Composition of mixture (%)				
Binder				
- type	Epoxy polyamine		Epoxy polyamine	Epoxy polyamine
- % by mass	72		72	70
Powder materials				
- type	Oxides + silicates		Oxides + silicates	Oxides + silicates
- % by mass	28		28	30
Solvent				
- type	None		None	None
- % by mass	-		-	-
Toxicity	See safety datasheet			
Flash point (°C):				
- Base	Electroperl Base > 90°C		Electroperl Base > 90°C	Gelcoat SV101 Base > 90°C
- Hardener	Electroperl Hardener > 90°C		Electroperl Hardener > 90°C	Gelcoat SV101 Hardener > 90°C
Density at 20°C (Kg/l)	1.32 ± 0.05		1.32 ± 0.05	1.30 ± 0.05
Non-volatile matter by mass (%)	96 – 100		96 – 100	96 – 100
Non-volatile matter by volume (%)	100		100	100
Storage temperature limits (min/max) °C	0 / 35°C		0 / 35°C	0 / 35°C
Storage humidity limits	-		-	-
Storage time in original unopened packaging at 20°C	18 months		18 months	18 months
Thickness in use (µm) ~~or consumption (g/m²)~~	800		-	600
- Minimum to seal film	680			150
- Maximum before sagging	1000			850 (***)
Maximum service temperature (°C)				
2 – APPLICATION PARAMETERS FOR RELEVANT USE				
Theoretical dry-film thickness for relevant application (µm)	←	about 2400µm	→	600
- Minimum tolerance	-		-	-
- Maximum tolerance	-		-	-
Practical consumption (g/m²)	1300	1200	1000	900
- Minimum/maximum	1105 – 1625	-	850 – 1250	720 - 1080
Theorical yield by volume (m²/l)	1.25	-	1.67	1.67(****)

(*) Application of annex 0 technical date sheet, according to specification.

(**) **Exists also in reinforced system with double lay with mat 450+ glass fabric P45 => data sheet 333A (FNP1008), *and* with glass fabric P80 => data sheet 333B (FNP1009)**

(***) According to actual reagent. Please consult us.

(****) Possible application in 2 coats of 300 microns, the 2nd on top the 1st one still tacky, or sprinkled with silica F15 : see CCTR /SCW in application.

PRODUCTS USED	Impregnation	Reinforcement	Saturation	Topcoat
3 – APPLICATION				
Atmosphere				
- Temperature limits (°C)	10 ≤ t ≤ 30		10 ≤ t ≤ 30	10 ≤ t ≤ 30
- Maximum humidity (%)	90		90	90
Substrate				
- Temperature limit (°C)	5 ≤ t ≤ 45		5 ≤ t ≤ 45	5 ≤ t ≤ 45
Concrete substrate :				
- Maximum moisture content (%)	(*)		(*)	(*)
- pH limit	-		-	-
- CSP grade	-		-	-
Steel substrate				
- surface condition	-		-	-
- Max/min roughness (µm)	-		-	-
Product :				
- Usage limit temperature for application (°C)	10 ≤ t ≤ 30		10 ≤ t ≤ 30	10 ≤ t ≤ 30
Mixing ratio and trade name of each part		☐Volume or	☒Mass	
- base % by mass	Electroperl Base : 75		Electroperl Base : 75	Gelcoat SV101 Base : 50
- hardener % by mass	Electroperl Hardener : 25		Electroperl Hardener : 25	Gelcoat SV101 Hardener : 50
Mixture usage conditions				
- Hardening time at + 10°C	None		None	None
- Maximum usage time after mixing at + 30°C.	20 minutes		20 minutes	15 minutes
Recommended application method with % thinner used	without dilution		without dilution	without dilution
- Brush or roller	X		X	X
- AIRLESS gun	-		-	X
- Conventional gun	-		-	-
4 – HARDENING / DRYING				
Drying time (20°C and 50% RH)				
- For dry film thickness of (µm)	-		2400	600
- Dust free	3 hours		3 hours	2 hours
- Dry-to-handling	-		8 hours	24 hours
- Dry-to-recoat times (min/max)	Immediate		24h min with sprinkling Silice F15	2 h / 6 h
Time to maintain hardening conditions before entry into service at 20°C	-		-	7 days / 4 days- RH < 90%

5 - CLEANING OF DRY COATING – PRODUCTS USED
Conventional alkaline detergents.

6 – REPAIR METHODS:
Rebuilding of system to original state after cleaning of area to be repaired and grinding of adjacent areas. Please consult our technical advice nr.5 "Retouching"

7 - GROSS CALORIFIC VALUE:
For a total dry film thickness of 3000 µm :
GCV value for the system : Primer EDO + Render AR100 + FNP1010 = 14.1 MJ/kg
GCV product : Electroperl = 24.6 MJ/kg // Gelcoat SV101 = 23.3 MJ/kg

8 – COLORS NOT POSSIBLE WITHIN THE FRAMEWORK OF THE DECLARED PERFORMANCE
All, except those mentioned.

9 – PERFORMANCE OF COATING IN CONTACT WITH LIQUIDS
Results for liquid resistance trials are indicated in French comment files available on request.

(*) Substrate temperature must be 3°C minimum above the dew point.

Max Perlès

sheet ex.nr.1010
Electroperl® / P120, topcoat Gelcoat SV101

Waterproof fiberglass/epoxy coating (1)

made of: reinforced epoxy with 1200 g/sqm of fiberglass + specific topcoat

for: heavy-duty trafic areas

in permanent or tempory contact with : PLA : *soil* - PLB: *calcifying raw fresh* - PLD : *demineralized water* PLE : *sea water* - PLF : *hydrocarbons, oils* PLG : *acids* - PLH: *bases*

substrate: new concrete *or* existing concrete liable to present a degraded surface aspect

Preparation as per Technical Advice nr 1 «Specification for preparation of concrete», and as a minimum:

- **Obtaining** — a healthy and homogeneous (2) substrate, free from laitance, loose particles and dust, over 100 microns surface roughness, using appropriate mechanical means
- **Removal** — of dust with industrial vacuum cleaner
- **Impregnation** — of concrete with waterborne epoxy Primer EDO using a roller, 250 g/sqm
- **Rendering** — of surface defects with epoxy Render AR100

System Electroperl® / P120 *with* Gelcoat SV101 *topcoat – thickness* 3 mm*:*

- **Uninterrupted laminate** — of fiberglass/epoxy as per *Technical Advice nr 14*, comprising:
  Electroperl® coat for **impregnation**, using a roller,**800 microns**, **1100 g/sqm**
  Glassfabric P120 to be unrolled, and debubblized using a special roller, **1200 g/sqm**
  Electroperl®, coat for **saturation**, using a roller, **600 microns**, **800 g/sqm**
  Silica SB0 (or F15) to be sprinkled while progressing by mechanical projection, **400 g/sqm**
- **Checking** — as per *Technical Advice nr 3* "Performance testing" and *nr 4* "Dielectric testing"
- **Repair** — of defects as per *Technical Advice nr 5* "Retouching"
- **Topcoat** — novolac-epoxy Gelcoat SV101 divided in 2 passes, using a medium bristle roller/flat brush, 600 microns, 800 g/sqm

Application conditions: In accordance with the rules of the art and the indications of our data sheets and technical advices.

A loss factor has to be added for practical consumption, **about 15%**, according to means and methods used.

Guarantee: 10 years

Including **the resistance to existing substrate cracks and resistance to new cracks of up to 20/10th mm.**
Reservation: surface colour may change
This proposal is based on our XL n°FR00008519LI, products civil liability insurance policy "after delivery", within its terms and limitations
To become effective, it must have been formalised in a duly signed guarantee commitment certificate.

(1) In accordance with the definition of the Annals of the Technical Institute of the Building industry and Public works - ITBTP - May 1990, for the **works of class C.**
(2) Must be eliminated entirely any coating or render or mortar of which the adherence is < 1,5 MPa, which would therefore not allow qualification as a stable and homogeneous substrate. Similarly, the **surface compactness of the concrete surface must be ≥ 1,5 MPa.**
(3) **Should not be done if there is a risk of counter-pressure by infiltration through the substrate,** except if a drainpipe system has been installed.

Annex 1

Product Data Sheets

EDO PRIMER
PRIMER W
ED1 VARNISH

AR100 RENDER

ELECTROPERL
LP100/512
GELCOAT SV101

MAT 450 + GLASS FIBER TISSUE P45 (A-type reinforcement)
GLASS FIBER TISSUE P80 (B-type reinforcement)
GLASS FIBER TISSUE P120 (C-type reinforcement)

Max Perlès
advanced industrial coatings

data sheet
august 2019

Primer
EDO
waterborne epoxy

scope:
concrete preparation

CHARACTERISTICS

Description / purpose

Where: On concrete or under our epoxy systems.

What: Improving adhesion and wetting ability for our epoxy systems.

Reducing or even stopping of water infiltrations before coating.

Primer EDO is a component of two systems that carry a **CE Marking** and are adapted for the following protection situations : principle 1 , method 1.3 ; principle 2 , method 2.2 and principle 8 , method 8.2 of Norm NF EN 1504-2.

Colour / finish

Clear / satin.

Packaging

In 2 separate cans, pre-adjusted for 8 kg.

Proportions, *by weight*: base 385 / hardener 615.

Storage conditions

- 18 months max, in the original cans, never opened,
- Under shelter,
- At temperatures of between 1°C/34°F and 35°C/95°F [(1)].

V.O.C. content

0 g/l according to ISO 11890-1 (statistic average).

Composition

Resin:	epoxide	Pigments:	none
Hardener:	polyamide	Vehicle:	water

Specific gravity (mix) at 20°C/68°F

1.20 ± 0.05 g/ml as per ISO 2811

Solids content (mix)

By weight : 47 % ± 2 as per ISO 3251

By volumer : 36 % per calculation

Viscosity (mix) at 20°C/68°F

Fluid.

[(1)] *which might increase or decrease by 10°C/50°F, once only, during a 5 days max transport time to destination.*

IMPLEMENTATION

For all use:
refer to relevant material safety data sheets indicating risk sentences and safety recommendations

Surface preparation

Concrete free from oil, laitance and dust.

Possible application on damp but non sweating surface.

Instructions for use

- *Air temperature for application:*
  Substrate: 3°C/37°F above dewpoint, *with* 5°C/41°F at least ♦ 45°C/113°F at most.
  Product: 5°C/41°F mini ♦ 35°C/95°F maxi.
- *Reducing viscosity when temp.°<15°C/60°F:* add 10% water to the hardener *prior to mixing with the base.*
- *Mix:* Pour *the base into hardener* while carefully stirring mechanically until a perfectly homogeneous mixture is obtained.
- *Maturing*: none.
- *Potlife mixture* at 20°C/68°F: 2 hours [(2)]
- *Application*: roller or brush, exclusively.

[(2)] *The limit shows when a separation of phases becomes visible on the surface, producing a "turned" mix effect.*

Consumption / thickness

- 250 g/sqm in a single coat. EDO being an impregnation material, no specific thickness is required.
- 2, even 3 coats should be applied when lasting dampness on the substrate or in case of infiltration risks.

Curing at 10°C/50°F – 30°C/86°F

- Dust free: ..... 6 and 3 hours
- Recoatable: ..... mini: 6 and 3 hours ♦ maxi : none

Make sure of absence of humidity before recoating.

Precautions and safety

Waterborne product. Flash point (cc) : >100°C/212°F

Cleaning of application equipment

- Immediately after use : water
- Afterwards and up to 3 hours standby :

Flammable ED Thinner – Flash point (cc) : 25°C/77°F.

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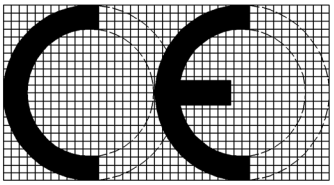
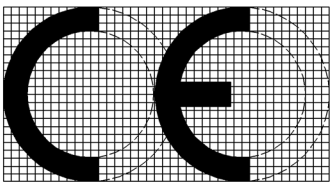

Primaire EDO – Aquaperl T Max Perlès – 4 rue du professeur Dubos – BP 80439 – 60119 Hénonville
16
0333-CPR-030014 EN 1504-2 : 2005 DOP : 16.08.001
Produits de protection de surface Revêtement
Perméabilité au CO_2 : NF EN 1062-6 : S_D > 50 m
Perméabilité à la vapeur d'eau : NF EN ISO 7783-2 : Classe II
Absorption capillaire et perméabilité à l'eau : NF EN 1062-3 : W < 0,1 kg/(m² x $h^{0,5}$)
Adhérence NF EN 1542 pour système rigide avec trafic ≥ 2,0 MPa


Primaire EDO – Bioperl T Max Perlès – 4 rue du professeur Dubos – BP 80439 – 60119 Hénonville
17
0333-CPR-030014 EN 1504-2 : 2005 DOP : 17.12.001
Produits de protection de surface Revêtement
Perméabilité au CO_2 : NF EN 1062-6 : S_D > 50 m
Perméabilité à la vapeur d'eau : NF EN ISO 7783-2 : Classe II
Absorption capillaire et perméabilité à l'eau : NF EN 1062-3 : W < 0,1 kg/(m² x $h^{0,5}$)
Adhérence NF EN 1542 pour système rigide avec trafic ≥ 2,0 MPa

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advanced industrial coatings

data sheet
august 2019

Primer

W

Solvent borne modified epoxy

scope:
surface preparation

CHARACTERISTICS

Description / purpose

Undercoat for our epoxy coatings, CMR's free, with exceptional adhesion properties, used for :

- Application as a bonding film between an old paint coat and a new one, to specify : please consult us.
- Undercoat for our epoxy or polyurea coatings.
- Used as a protective varnish for non ferrous metals

Color / finish

Clear / satin

Packaging

In 2 separate cans, pre-adjusted for 8 kg.
Proportions, by weight: base 82 / hardener 18

Storage conditions

- 18 months max, , in the original cans, never opened,
- Under shelter.
- At temperatures of between 0°C/32°F et 35°C/95°F[1].

[1] *which might increase or decrease by 10°C/50°F, once only, during a 5 days max transport time to destination.*

V.O.C. content

328.4 g/l, according to ISO 11890-1 (statistical average).

Composition

Resin	:	modified epoxy
Hardener	:	polyamide
Pigments	:	none
Solvent	:	hydrocarbons

Specific gravity (mix) at 20°C/68°F

1.00 ± 0.05 g/ml as per ISO 2811.

Solids content (mix)

By weight	:	67 % ± 2 as per ISO 3251.
By volumer	:	68 % per calculation.

Viscosity (mix) at 20°C/68°F

30 to 40 seconds, Afnor cup nr 4.

IMPLEMENTATION

For all use :
Refer to relevant material safety data sheets as to risk sentences and safety recommendations

Surface preparation

- abrasive blasted steel surfaces to Sa 2,5 mini, average profile : Medium G or Rt 50-75 µ.
- non ferrous metals: dry, free of oil and odd particles.
- Concrete, on specification.

Instructions for use

- *Air temperature for application :*
  Substrate : 3°C/37°F mini above dewpoint,
  with 5°C/41°F at least ♦ 45°C/113°F at most.
  Product : 8°C/46°F mini ♦ 35°C/95°F maxi.
- *Mix* : Stir the base to an even consistency with a power mixer. Then add hardener and continue stirring until a perfectly homogeneous mixture is obtained.
- *Potlife mixture* at 20°C/68°F: 1 hour.
- *Application :* with airless or conventional spray, even by roller. Adjust viscosity after 1/2 h with 5% ED Thinner.

Coverage for a 30 to 75 micron – 1.2 to 2.95 mil dry film[2]

Theoretical : 23 – 9.0 sqm/kg ♦ 45 – 110 g/sqm
Practical : 13 – 6.5 sqm /kg ♦ 75 – 150 g/ sqm

On concrete, consumption can reach 250 g/sqm, depending on porosity, or even 400 g/sqm in case of a 2-layer application.

[2] *Depending on intended use.*

Curing at 10/30°C // 50/86°F

Temperature	*Dust free*	*Recoatable mini*	*Recoatable maxi*
10°C/50°F	6 hours	6 hours	none [3]
30°C/86°F	3 hours	3 hours	none [3]

[3] *Except for URP1 and Flexperl: please consult us.*

Precautions and safety

Flammable product. Flash point (cc) : 25°C/77°F

Cleaning of application equipement

Flammable ED Thinner – Flash point (cc) : 25°C/77°F

.

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august 2019

Varnish

ED1

Solvent borne epoxy

scope:
steel preparation

CHARACTERISTICS

Description / purpose
Undercoat for our epoxy coatings, used :
- either as a stand-by primer for :

1 to 3 months in outside exposure, depending on climatic conditions, and up to 6 months when not directly exposed to weathering.
- or as a sealer on zinc rich primed surfaces.

Color / finish
Clear / satin

Packaging
In 2 separate cans, pre-adjusted for 3 or 8 kg.
Proportions, by weight: base 65 / hardener 35

Storage conditions
- 18 months max, , in the original cans, never opened,
- Under shelter.
- At temperatures of between 0°C/32°F et 35°C/95°F[(1)].

[(1)] *which might increase or decrease by 10°C/50°F, once only, during a 5 days max transport time to destination.*

V.O.C. content
478.1 g/l, according to ISO 11890-1 (statistical average).

Composition
Resin	:	epoxide
Hardener	:	polyamide
Pigments	:	none
Solvent	:	mixture of hydrocarbons/alcohols

Specific gravity (mix) at 20°C/68°F
0.95 ± 0.05 g/ml as per ISO 2811.

Solids content (mix)
By weight	:	48 % ± 2 as per ISO 3251.
By volume	:	40 % per calculation.

Viscosity (mix) at 20°C/68°F
25 to 35 seconds, Afnor cup nr 4.

IMPLEMENTATION

For all use :
Refer to relevant material safety data sheets as to risk sentences and safety recommendations

Surface preparation
- On abrasive blasted steel surfaces to Sa 2,5 mini, average profile : Medium G or Rt 50-75 µ.
- Compatible shop primer, after suitable treatment.

Instructions for use
- *Air temperature for application :*
  - Substrate : 3°C/37°F mini above dewpoint, with 5°C/41°F at least ♦ 45°C/113°F at most.
  - Product : 5°C/41°F mini ♦ 35°C/95°F maxi.
- *Mix*: Stir the base to an even consistency with a power mixer. Then add hardener and continue stirring until a perfectly homogeneous mixture is obtained.
- *Maturing* : 30 to 60 mn – Stir again before use.
- *Potlife mixture* at 20°C/68°F: 10 hours.
- *Application* with airless or conventional spray, even by brush on small surfaces, *without dilution*.

Coverage for a 30 micron – 1.2 mil dry film
Theoretical	: 14 sqm/kg	♦ 71 g/sqm
Practical	: 10 sqm /kg	♦ 100 g/ sqm

Curing at 10/30°C // 50/86°F
Temperature	*Dust free*	*Recoatable mini*	*Recoatable maxi*
10°C/50°F	30 mn	8 hours	18 hours
30°C/86°F	10 mn	4 hours	6 hours

Precautions and safety
Flammable product. Flash point (cc) : 25°C/77°F

Cleaning of application equipement
Flammable ED Thinner – Flash point (cc) : 25°C/77°F.

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august 2019

Render
AR100
solventfree epoxy

scope:
concrete and steel preparation

OVERVIEW

Purpose

Where: Under our epoxy systems or other compatible.

What: Surfacing, rendering, plugging, patching cavities, filling fixed joints, chamfers.

Which: Steel or concrete structures.

Description

Product : Solventfree epoxy, CMR's free, in the form of a pasty gel, after mixing of the 2 components.

Use : It can be used both for racking and for heavy filling, up to 15/20, or even 30 mm, vertically without recharging.

Properties and benefits

Mechanical properties :

Exceptional adhesion and sticking properties, with a very high mechanical cohesion.

Use properties :

Render AR100 is easy to use and polyvalent.
It requires neither powdering, nor grinding, except in case of binder raising at the surface: see page 2/2 « Recoating ».

Compliance with safety and regulatory requirements:
Render AR100 is ***solventfree***, flash point (cc): > 90°C/194°F for optimal safety and minimized application constraints.
It is ***aromatic amines or phtalates free*** for compliance with current regulations.

CHARACTERISTICS

Packaging

- In 2 separate cans, pre-adjusted for 4 or 12 kg.
- Proportions, *in weight:* base 85 / hardener 15

Storage conditions

- 18 months max, in the original cans, never opened,
- Under shelter,
- At temperatures of between 0°C/32°F and 35°C/95°F[(1)],

[(1)] *which might increase or decrease by 10°C/50°F, once only during a 5 days max transport time to destination.*

Colours

Yellow ochre, approaching RAL 8001.

Finish

Semi-flat.

V.O.C. content

17.7 g/l, according to ISO 11890-1 (statistic average).

Composition

Resin	:	epoxide
Hardener	:	non aromatic polyamine
Pigments	:	synthetic oxides
Filler	:	silicates/silica
Solvent	:	none

Specific gravity (mix) at 20°C/68°F

1.90 ± 0,05 g/ml as per ISO 2811

Solids content (mix)

By weight	:	96–100% after 6 hrs maturation - ISO 3251
By volume	:	100% per calculation

Viscosity (mix) at 20°C/68°F

Pasty.

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IMPLEMENTATION

Conform and controlled conditions during application and hardening periods are necessary to obtain required quality

For all use: Refer to relevant material safety data sheets as to risk sentences and safety recommendations

♦ Before:

Surface preparation

Concrete impregnated with Primer EDO or EDA : see relevant data sheets and *Technical Advice nr 1* : « Specification for preparation of concrete ».

Steel after smoothing sharp edges, on abrasive blasted surfaces to Sa 2,5 minimum.

Average profile :

- Case of prior application of Primer EDA (see data sheet) : Medium G or Rt 50-75µ.
- Case of direct application : Rough G or Rt 100µ.

Always apply on clean and dry substrates

Products preparation

24 hours minimum before application, place the drums in a temperate place at 10°C/50°F min and 30°C/86°F max.

Application temperatures:

Substrate:

3°C/37°F mini above dew point,
with 5°C/41°F at least ♦ 45°C/113°F at most.

Product:

While mixing : 10°C/50°F ♦ 30°C/86°F max
Use: at mixing temperature

Mixing

- *Never make up partial mixtures*, in order to avoid the risks of incorrect proportions.
- Pour the hardener on the base while carefully stirring mechanically until a perfectly homogeneous mixture is obtained.

Conditions for use

- Maturing : none.
- Apply immediately as far as mixing has been done.
- *Never dilute,* before nor during application.

Application conditions

- Manual :

Palette knife, spatula or trowel.

- Mechanically :

Pump for past-like product, or pneumatic double cartridge caulking gun with a static mixer

♦ During:

Potlife of mixture

10°C/50°F	20°C/68°F	30°C/86°F
4 h 00	2 h 00	1 h 00

Consumption / thickness per mm

1,9 kg/sqm.
This theoretical value should be *10±5% increased* to get it practical, according to nature of substrate and implementation method.

Note:

Consumption will increase when surface temperature is < 20°C, making the product viscous with its contact.

Overcoating

No minimum neither maximum after application, and no particular prior conditions, except in the following case :

Application with a thickness > 5 mm, as well as a strong smoothing, may result in a binder rise on the surface :
In that case it is necessary :
- either to sprinkle Silica SB0 or F15 on the fresh application, while progressing,
- either to sand down the coated surface, after at least 12/24 hours drying according to temperature in order to get a Rough G.

Cleaning of application equipment

Flammable ED Thinner. Flash point (cc): 25°C/77°F.

♦ After:

Curing

t°	*Dust free*	*Tack free*
10°C	8 to 9 h 00	24 h 00
20°C	5 to 6 h 00	15 to 18 h 00
30°C	2 to 2 h 30	5 to to 6 h 00

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data sheet
august 2019

ELECTROPERL

« cold applied » solventfree epoxy

scope:
energy

OVERVIEW

Purpose

Where: Internal protection of vats, retention pits, sumps, collectors.

What: Occasional or permanent contact with radioactive materials, effluents and industrial waters in the energy industries producers field power plant and stations.(1)

(1) *For resistances to some chemicals, Electroperl topcoat could be replaced when necessary by another more appropriate such as AR100, LP100 or SV101: please consult us*

Which: Steel or concrete structures.

Description

Product: solventfree epoxy, C.M.R.'s free.

As laminate lining, it is designed for tightness in cement works, or for reinforcement of steel works in which corrosion resulted in significant damage to the substrate.

As single thick coat, it is suitable for imperviousness of concrete and/or anticorrosion of steel.

Use:

Impregnation/saturation of reinforcements.
Top or single coat, from 500 to 600 µ.

Properties and benefits

Nuclear properties:

5 decontamination reports from CEA Saclay Atomic : nr 880801 / 880402 / 880403 / 880404 / 921201, under AL8T/AP ref.
3 irradiation reports from INR Fleurus : nr 519/525/531.

Mechanical resistance and proofing of laminate:

Especially high, thanks to a very good behaviour to cracking, shearing, tensile strength, counterpressure and abrasion:
4 EDF-CEMETE reports CE92-083A/ CE070117/ CE070228/ CE070230 – under AL8T/AP ref.
2 CETIM Abrasion reports CET00674141-6D1-a/ CET0054645

Surface properties:

Aspect : uniform and seamless glossy surface.
Result : very easy to clean, no weak areas.

Compliance with safety and regulatory requirements:

Technoperl is *solventfree*, flash point (cc): > 90°C/194°F for optimal safety and minimized application constraints.
It is *aromatic amines or phtalates free* for compliance with current regulations.

CHARACTERISTICS

Packaging

- In 2 separate cans, pre-adjusted for 4 or 12 kg.
- Proportion, *by weight*: base 3 / hardener 1

Storage conditions

- 18 months max, in the original cans, never opened,
- Under shelter,
- At temperatures between 0°C/32°F and 35°C/95°F(1),

(1) *which might increase or decrease by 10°C/50°F, once only during a 5 days max transport time to destination.*

Colours

Typical: grey RAL 7035.

Finish

Glossy with limited chalking and yellowing in operation *especially if implementation requirements are respected.*

Reinforcements

Please consult us.

V.O.C. content

8.1 g/l, according to ISO 11890-1 (statistical average).

Composition

Resin	:	epoxide
Hardener	:	non-aromatic polyamine
Pigments	:	synthetic oxides
Solvent	:	none

Specific gravity (mix) at 20°C/68°F

1.32 ± 0,05 g/ml as per ISO 2811

Solids content (mix)

By weight	:	96–100% after 6 hrs maturation - ISO 3251
By volume	:	100% per calculation

Viscosity (mix) at 20°C/68°F

5 000 mPa.s ± 1 000 ♦ 50 poises ± 10

A slight evolution may happen during the storage period, without any effect on the application conditions.

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IMPLEMENTATION

Conform and controlled conditions
During application and hardening periods
Are necessary to obtain required quality

For all use:
Refer to relevant material safety data sheets as to risk sentences and safety recommendations

♦ Before:

Surface preparation

Concrete impregnated with Primer EDO or EDA:
Refer to relevant data sheet and *Technical Advice nr1* « Specification for preparation of concrete ».

Steel after smoothing sharp edges, on abrasive blasted surfaces to Sa3 degree. Average profile:

- In case of prior application of Primer EDA or Varnish ED1 (see data sheet):
Medium G or Rt 50-75µ.
- In case of direct application: Rough G or Rt 100µ.

Our expoxy laminates, according to specification.

Always apply on clean and dry substrates

Products preparation

24 hours minimum before application, place the drums in a temperate area at 10°C/50°F min and 30°C/86°F max.

Application temperatures

Substrate:
3°C/37°F mini above dew point,
with 5°C/41°F at least ♦ 45°C/113°F at most.

Product:

While mixing:	10°C /50°F mini ♦ 30°C/86°C maxi
Spraying:	at 25/35°C // 77/95°F at hose exit
Manual use:	at mixing temperature

Mixing

- *Never make up partial mixtures*, in order to avoid the risks of incorrect proportions.
- Stir the base with a power mixer to an even consistency. Then, add hardener and continue stirring until a perfectly homogeneous mixture is obtained.

Conditions for use

- No maturing before use.
- Start the application immediately after mixing.
- Electroperl *should never be diluted*.

Application

Laminate :

- Roller, or airless pump for the binder,
- Debubblizer roller for the glass fiber,
- Mechanical sprinkling of Silica SB 0 or F15 while progressing.

Detailed procedure is described in our *Technical Advice nr 14* available on request.

singlecoat and/or topcoat :

- Airless spraying unit, with a 45/1 min pump ratio.
- Or Medium bristle roller in 2 layers, on condition to *pay particular attention to the thickness and regularity of applied coat : each one shall be followed by smoothing the surface with a flat brush*.

During:

Pot life of mixture

10°C/50°F	20°C/68°F	30°C/86°F
1 h 00	0 h 35	0 h 20

In case of long lasting spraying application, the hose should be cleaned once per hour with ED Thinner.

Number of coats

2 per layer, except in case of multi-layer continuous application, plus 1 for topcoating or for a singlecoat.

Thicknesses

Laminate :
They are given with particular specification, and vary with nature of the reinforcement: they are generally comprised between 2 and 3 mm, *including* a 600µ *topcoat*.

Top or Singlecoat :
Min 500 microns – max 600 microns, according to spec.

Consumptions

Laminate :

- 1,4 kg/m² of binder for a P45 fabric-450 g/m²: 1,5 mm
- 1,8 kg/m² of binder for a M4 type Matt 450 g/m²: 2,0 mm
- 1,8 kg/m² of binder for a P80 fabric-800 g/m²: 2,0 mm
- 2,2 kg/m² of binder for a P120 fabric-1200 g/m²: 2,5 mm

Top or singlecoat :
132 g/sqm per 100 microns thickness. This theoretical value should be *20±5% increased* to get it practical, according to nature of substrate and implementation method.

Note:
Consumption will increase by 100 to 300 g/m² when surface temperature is < 20°C, making the product viscous with its contact.

Cleaning of application equipment

Flammable ED Thinner. Flash point (cc): 25°C/77°F.

♦ After:

Curing

t°	*Dust free*	*Tack free*
10°C	6 h 00	15 h 00
20°C	3 h 00	8 h 00
30°C	1 h 30	4 h 30

Delay before use: 10, 7 or 4 days, depending on temperature.

Repairs

Report to our *Technical Advice nr 5*.

August 2019 : Replaces and cancels any former issue.

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data sheet
august 2019

Coating

LP100/512

solventfree epoxy

scopes:
petroleum, foodstuffs and energy

OVERVIEW

Intended use

Where : Interior of capacities for primary and secondary containments, pipelines.

What : Contact with a large number of products, especially those containing alcohol, but also in petroleum, nuclear, and food industries (excluding wine).

Which : Steel or concrete structures.

Description

Product: solventfree epoxy, C.M.R.'s free.

Use: In a single layer – to avoid problems with delays between coats causing disbondings – using a high ratio airless spraying pump:

- either as a direct single coat
- or as a topcoat over a glassfibre-epoxy compound such as one of the « perl » range.

Typical thickness: 300 to 1000 microns, horizontally as well as vertically.

Properties and benefits

Chemical Properties:

Foodgrade quality: report E16-15824 by IANESCO Lab.
Foodgrade quality: report E16-15824-2 by IANESCO Lab.
Decontamination test: report nr 06/11 by CEA Saclay.

Mechanical properties:

Taber abrasion test report nr CET0065246-6D1-m by CETIM Nantes.

Surface properties:

Aspect : uniform and seamless glossy surface.
Result : very easy to clean, no weak areas.

Compliance with safety and regulatory requirements:

LP100/512 ***is solventfree,*** flash point (cc): > 90°C/194°F for optimal safety and minimized application constraints.
It is ***aromatic amines or phtalates free*** for compliance with current regulations.

CHARACTERISTICS

Packaging

In 2 separate cans, pre-adjusted for 20 kg.
Proportions, *by weight*: base 1 / hardener 1

Storage conditions

- 18 months max, in the original cans, never opened,
- Under shelter,
- At temperatures of between 0°C/32°F and 35°C/95°F[(1)],

[(1)] *which might increase or decrease by 10°C/50°F, once only during a 5 days max transport time to destination.*

Colours

Sand-colored, approaching yellow RAL 1017
White on request [(2)]

[(2)] *with awareness that the mixture's quality cannot be controlled.*

Finish

Glossy with limited chalking and yellowing in operation, ***especially if implementation requirements are respected.***

V.O.C. content

15.8 g/l, according to ISO 11890-1 (statistical average)

Composition

Resin	:	epoxy
Hardener	:	non-aromatic polyamine
Pigments	:	synthetic oxides
Solvent	:	none

Specific gravity (mix) at 20°C/68°F

1.42 ± 0.05 g/ml as per ISO 2811

Solids content (mix)

By weight	:	96–100% after 6 hrs maturation - ISO 3251
By volume	:	100% per calculation

Viscosity (mix) at 20°C/68°F

8 500 mPa.s ± 1 500 ♦ 85 poises ± 15
A slight evolution may happen during the storage period, without any effect on the application conditions.

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IMPLEMENTATION

Conform and controlled conditions during application and hardening periods are necessary to obtain required quality

For all use : Refer to relevant material safety data sheets as to risk sentences and safety recommendations

♦ Before:

Surface preparation

Steel after smoothing sharp edges, on abrasive blasted surfaces to Sa 3 degree, or equivalent.
Average profile:
• Case of prior application of Varnish ED1, Primer EDA, Primer EDP, or Primer W (see data sheet):
Medium G or Rt 50-75µ.
• Case of direct application:
Rough G or Rt 100µ.

Our epoxy laminates, according to specification.

On recommandation: suitable concrete, impregnated with Primer EDO or EDA: consult us.

Always apply on clean and dry substrates

Products preparation

24 hours minimum before application, place the cans in a temperate area at 10°C/50°F min and 30°C/86°F max.

Application temperatures

Substrate:
3°C/37°F minimum above dew point,
With: 5°C/41°F at least ♦ 45°C/113°F at most.

Product:

While mixing:	10°C/50°F min ♦ 30°C/86° F max
Manual use:	at mixing temperature
Spraying:	at 30/35°C // 86/95°F min at hose exit.

Mixing

• *Never make up partial mixtures*, in order to avoid the risks of incorrect proportions.
• Stir the base with a power mixer to an even consistency. Then, add hardener and continue stirring until a perfectly homogeneous mixture is obtained.

Conditions for use

• No maturing before use.
• Start the application immediately after mixing.
• LP100/512 *should never be diluted.*

Application

• 1 or 2-component airless spraying unit, with a 45:1 min pump ratio, *without dilution, fitted with heating hose.*
• Or medium bristle roller, in case of pretouching, or for small surfaces or difficult to access areas, on condition *to pay particular attention to thickness and regularity of the applied coat: this shall be followed by smoothing the surface with a flat brush.*

♦ During:

Pot-life of mixture

10°C/50°F	20°C/68°F	30°C/86°F
1 h 00	0 h 30	0 h 15

In case of long lasting spraying application, the hose should be cleaned once per hour with ED Thinner.

Number of coats

one.

Recommended thickness

300 to 1000 microns, according to specification.

Note:
Thicknesses are proposed in agreement with the method of the International standard ISO 19840:
Do not exceed 30% above the maximum value, except for pre-touchups and local overcoatings.

Theoretical consumption

142 g/sqm per 100 microns thickness.
This theoretical value should be *20±5 % increased* to get it practical, according to nature of substrate and implementation method.

Note:
Consumption will increase by 100 to 300 g/m² when surface temperature is < 20°C, making the product viscous with its contact.

Cleaning of application equipment

Flammable ED Thinner. Flash point (cc): 25°C/77°F.

♦ After:

Curing

t°	*Dustfree*	*Tack free*
10°C	6 h 00	20 h 00
20°C	3 h 00	11 h 00
30°C	1 h 30	4 h 00

Delay before use: 10 to 4 days, depending on temperature.

Repairs

Report to our *Technical Advice nr 5*.

august 2019 : Replaces and cancels any former issue.

Max Perlès
advanced industrial coatings

data sheet
august 2019

Gelcoat

SV101

solventfree novolac epoxy

scopes:
chemical industry and energy

OVERVIEW

Purpose

Where: Internal protection of tanks, retention pits, gutters.

What: Occasional or permanent contact with effluents, which may be radioactive or not, acid or basic, in energy production sites or chemical industries.

Which: Steel or concrete structures.

Description

Product: solventfree epoxy-novolac, C.M.R.'s free.

Use:

- either as a direct single coat,
- either as a topcoat of an epoxy-fibre reinforced structure such as one of the « perl » range.

Typical thickness: according to specification: from 500 to 800 microns.

Application in one vertical coat: up to 500µ with an airless pump, or 300µ with a roller.

Properties and benefits

Chemical and nuclear performance:

Exceptional inertia to a very large number of mineral and organic acids at ambient temperature: please consult us.
Decontamination test: report nr 06/07 by CEA Saclay.

Application properties:

To take advantage of a simple and cost effective standard spraying machine.

Surface properties:

Aspect : uniform and seamless glossy surface.
Result : very easy to clean, no weak areas.

Compliance with safety and regulatory requirements:

SV101 *is solventfree,* flash point (cc): > 90°C/194°F for optimal safety and minimized application constraints.
It is *aromatic amines, phtalates and styrene free* for compliance with current regulations.

CHARACTERISTICS

Packaging

• In 2 separate cans, pre-adjusted for 12 kg.
Proportions, *by weight*: base 1 / hardener 1

Storage conditions

• 18 months max, in the original cans, never opened,
• Under shelter,
• At temperatures of between 0°C/32°F and 35°C/95°F[(1)],

[(1)] *which might increase or decrease by 10°C/50°F, once only during a 5 days max transport time to destination.*

Colours

Beige, approaching RAL 1015.

Finish

Glossy with limited chalking and yellowing in operation, *especially if implementation requirements are respected.*

Reinforcements

Please consult us.

V.O.C. content

19.1 g/l, according to ISO 11890-1 (statistical average)

Composition

Resin	:	novolac-epoxy
Hardener	:	non-aromatic polyamine
Pigments	:	synthetic oxides
Solvent	:	none

Specific gravity (mix) at 20°C/68°F

1.30 ± 0.05 g/ml as per ISO 2811

Solids content (mix)

By weight	:	96–100% after 6 hrs maturation - ISO 3251
By volume	:	100% per calculation

Viscosity (mix) at 20°C/68°F

6 000 mPa.s ±1 000 ♦ 60 poises ±10

A slight evolution may happen during the storage period, without any effect on the application conditions.

ISO 9001 certified since 1996
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IMPLEMENTATION

Conform and controlled conditions
During application and hardening periods
Are necessary to obtain required quality

For all use:
Refer to relevant material safety data sheets as to risk sentences and safety recommendations

♦ Before:

Surface preparation

Steel after sharp edges have been smoothed, on abrasive blasted surfaces to Sa3 degree.
Average profile:
• In case of prior application of Varnish ED1 or Primer EDA (see data sheet):
Medium G or Rt 50-75µ.
• In case of direct application:
Rough G or Rt 100µ.
Our epoxy laminates, according to specification.
On specific recommendation: concrete impregnated with EDO or EDA Primer: please consult us.

Always apply on clean and dry substrates

Products preparation

24 hours minimum before application, place the cans in a temperate area at 10°C/50°F min and 30°C/86°F max.

Application temperatures

Substrate:
3°C/37°F minimum above dew point,
With: 5°C/41°F at least ♦ 45°C/113°F at most.
Product:

While mixing:	10°C/50°F min ♦ 30°C/86° F max
Spraying at:	25°C/77°F min at hose exit
Manual use:	at mixing temperature

Mixing

• *Never make up partial mixtures*, in order to avoid the risks of incorrect proportions.
• Stir the base with a power mixer to an even consistency. Then, add hardener and continue stirring until a perfectly homogeneous mixture is obtained.

Conditions for use

• No maturing before use.
• Start the application immediately after mixing.
• Gelcoat SV101 *should never be diluted.*

Application

• Airless spraying unit, with a 45/l min pump ratio, fitted with heating hose.
• Or medium bristle roller, *in 2 layers*, on condition to *pay particular attention to the thickness and regularity of applied coat: each one shall be followed by smoothing the surface with a flat brush.*

♦ During:

Pot-life of mixture

10°C/50°F	20°C/68°F	30°C/86°F
2 h 00	0 h 30	0 h 10

In case of long lasting spraying application, the hose should be cleaned once per hour with ED Thinner.

Number of coats

Horizontal application: 1
Vertical application: 2, *within the acceptable recoating interval*: see below.

Recommended thickness

500 to 800 microns, according to specification.
Thicknesses are proposed in agreement with the method of the International standard ISO 19840:
Do not exceed 30% above the maximum value, except for pre-touchups and local overcoatings.

Theoretical consumption

130 g/sqm per 100 microns thickness.
This theoretical value should be *20±5 % increased* to get it practical, according to nature of substrate and implementation method.
Note:
Consumption will increase of 100 to 300 g/sqm when surface temperature is < 20°C, making the product viscous with its contact.

Cleaning of application equipment

Flammable ED Thinner. Flash point (cc): 25°C/77°F.

♦ After:

Curing

t°	*Dustfree*	*Recoatable*
10°C	5 h 00	min 5 h 00 – max 8 h 00
20°C	2 h 00	min 2 h 00 – max 6 h 00
30°C	1 h 00	min 1 h 00 – max 3 h 00

Delay before use: 10, 7 or 4 days, depending on temperature.

Repairs

Report to our *Technical Advice nr 5*.

August 2019 : Replaces and cancels any former issue.

Max Perlès
advanced industrial coatings

data sheet
august 2019

Matts

300, 450, 600 g/m²

Fiberglass reinforcements

scope:
reinforcements / sealings

OVERVIEW

Description
Technical glassmatts made of "E-glass" strands cut at an approximative length of 50 mm, and agglomerated thanks to a binder in soluble emulsion in the resins.

Purpose
Homogeneous glassfiber reinforcements of epoxy coatings, with variable weight, according to the intended use : please consult us.

Properties and benefits
- Reinforcement to be drowned in an epoxy or vinylester matrix, ensuring the sealing, according to known constraints: please consult us.
- Suits for a simple or a multiple fold.
- Easy implementation.
- Excellent drapability.
- Easy debubbling with ***adapted rollers***.

CHARACTERISTICS

Specifications

Type	*Weight (g/sqm)*	*Tolerance*	*Fiber type*	*Filament diameter*	*Finish*
Matt	**300**	± 5%	E-glass	11 µm	Silane
Matt	**450**	± 5%	E-glass	11 µm	Silane
Matt	**600**	± 5%	E-glass	11 µm	Silane

Measurements (roller)

Basis weight	*Lenght (lm)*	*Width (cm)*	*Weight (kg)*	*Surface (sqm)*
300	113	127	43	143
450	75	127	43	95
600	63	127	48	80

Thickness (breadth)
300/500/700 µ, measured with a Palmer device.

Delivery
Rolled up : on chuck.
Packing : in a polyethylene bag, each one in a box.

Storage conditions
Fears moisture.
Store in dry atmosphere, under shelter, in the original packing, at a temperature of between 0°C/32°F and 35°C/95°F[(1)].
[(1)] *which might increase or decrease by 10°C/50°F, once only, during a 5 days max transport time to destination.*

Use conditions
Use in a non-condensing atmosphere and support,
according to operating methods described in the *Technical Advice nr14.*

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data sheet
august 2019

fiberglass fabric

P45

Bi-axial E-glass fabric – 450 g/sqm

scope:
sealing

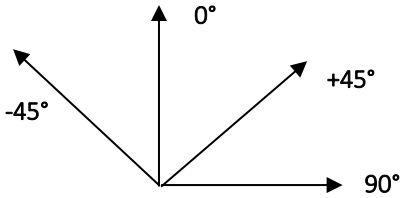
OVERVIEW

Description

Technical glass cloth, made of a sewed glass filaments complex, oriented + and – 45° and setted on a matt, with a *black* tracer wire to facilitate the breadth covering.
Exists in 20 cm large ribbon, 40 ml, under the ref. R45.

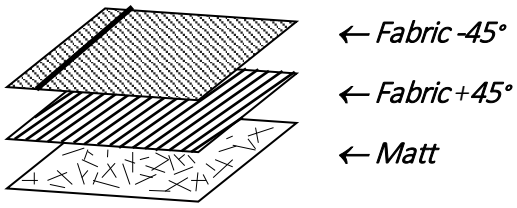
Purpose

Homogeneous reinforcement of epoxy coatings.



Properties and benefits

- Reinforcement to be drowned in an epoxy or vinylester matrix, ensuring the sealing.
- High mechanical performance.
- Excellent drapability.
- No longitudinal deflection.
- Easy implementation.



CHARACTERISTICS

Specifications

Axis angle	*Weight (g/sqm)*	*Tolerance*	*Fiber*	*Filament diameter*	*Finish*
Fabric +45°	187	± 5%	E-glass	12 - 14 µ	Silane
Fabric –45°	187	± 5%	E-glass	12 - 14 µ	Silane
Matt	100	± 5%	E-glass	-	-
Sewing	<10	± 5%	PE	78 dTex	-

Measurements (roller)

Length: about 40 ml
Width: 127 cm
Weight: about 25 kg
Surface: about 51 sqm

Thickness (breadth)

500µ, measured with a Palmer device.

Delivery

Rolled up: matt on external side on chuck.
Packing: in a polyethylene bag, each one in a box.

Storage conditions

Fears moisture.
Store in dry atmosphere, under shelter, in the original packing, at a temperature of between 0°C/32°F and 35°C/95°F[(1)].
[(1)] *which might increase or decrease by 10°C/50°F, once only, during a 5 days max transport time to destination.*

Use conditions

Use in a non-condensing atmosphere and support, according to operating methods described in the *Technical Advice nr14.*

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data sheet
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fiberglass fabric

P80

Bi-axial E-glass fabric – 800 g/sqm

scope:
sealing

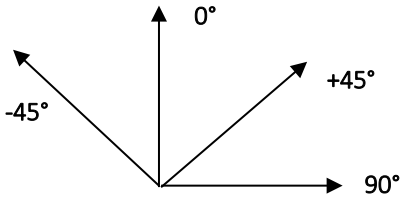
OVERVIEW

Description

Technical glass cloth, made of a sewed glass filaments complex, oriented + and – 45° and setted on a matt, with a *green* tracer wire to facilitate the breadth covering.

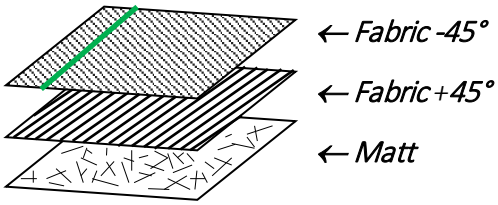
Purpose

Homogeneous reinforcement of epoxy coatings.



Properties and benefits

- Reinforcement to be drowned in an epoxy or vinylester matrix, ensuring the sealing.
- High mechanical performance.
- Excellent drapability.
- No longitudinal deflection.
- Easy implementation.



CHARACTERISTICS

Specifications

Axis angle	*Weight (g/sqm)*	*Tolerance*	*Fiber*	*Filament diameter*	*Finish*
Fabric +45°	350	± 5%	E-glass	12 - 16 µ	Silane
Fabric –45°	350	± 5%	E-glass	12 - 16 µ	Silane
Matt	100	± 5%	E-glass	-	-
Sewing	<10	± 5%	PE	78 dTex	-

Measurements (roller)

Length: about 24 ml
Width: 127 cm
Weight: about 25 kg
Surface: about 31 sqm

Thickness (breadth)

800µ, measured with a Palmer device.

Delivery

Rolled up: matt on external side on chuck.
Packing: in a polyethylene bag, each one in a box.

Storage conditions

Fears moisture.

Store in dry atmosphere, under shelter, in the original packing, at a temperature of between 0°C/32°F and 35°C/95°F[(1)].

[(1)] *which might increase or decrease by 10°C/50°F, once only, during a 5 days max transport time to destination.*

Use conditions

Use in a non-condensing atmosphere and support, according to operating methods described in the *Technical Advice nr14.*

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data sheet
august 2019

fiberglass fabric

P120

Bi-axial E-glass fabric – 1200 g/sqm

scope:
sealing

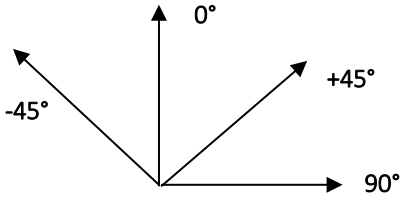
OVERVIEW

Description

Technical glass cloth, made of a sewed glass filaments complex, oriented + and – 45° and setted on a matt, with a *red* tracer wire to facilitate the breadth covering.

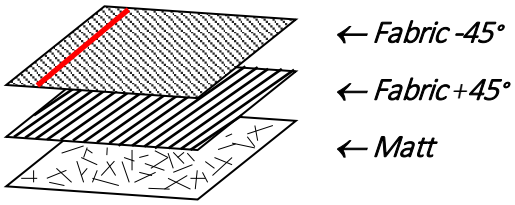
Purpose

Homogeneous reinforcement of epoxy coatings.



Properties and benefits

- Reinforcement to be drowned in an epoxy or vinylester matrix, ensuring the sealing.
- High mechanical performance.
- Excellent drapability.
- No longitudinal deflection.
- Easy implementation.



CHARACTERISTICS

Specifications

Axis angle	*Weight (g/sqm)*	*Tolerance*	*Fiber*	*Filament diameter*	*Finish*
Fabric +45°	550	± 5%	E-glass	12 - 17 µ	Silane
Fabric –45°	550	± 5%	E-glass	12 - 17 µ	Silane
Matt	100	± 5%	E-glass	-	-
Sewing	<10	± 5%	PE	78 dTex	-

Measurements (roller)

Length: about 16 ml
Width: 127 cm
Weight: about 25 kg
Surface: about 21 sqm

Thickness (breadth)

1000/1200 µ, measured with a Palmer device.

Delivery

Rolled up: matt on external side on chuck.
Packing: in a polyethylene bag, each one in a box.

Storage conditions

Fears moisture.

Store in dry atmosphere, under shelter, in the original packing, at a temperature of between 0°C/32°F and 35°C/95°F[(1)].

[(1)] *which might increase or decrease by 10°C/50°F, once only, during a 5 days max transport time to destination.*

Use conditions

Use in a non-condensing atmosphere and support, according to operating methods described in the *Technical Advice nr14.*

Replaces and cancels any former issue
The above mentioned information is given with objectiveness but cannot involve our companybeyond our manufacturer's responsibility.

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Annex 2

Reference list

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Reference list

energy

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summary

Nuclear Power Plants – France

EDF - BELLEVILLE S/LOIRE (18)

- *Bâches TEG 101, 102 et 103 B1*	*Steel*	*1990*
- *Bac de stockage de la solution de nettoyage des GV*	*Steel*	*1991*
- *Fosse de rétention de la solution de nettoyage des GV*	*Concrete*	*1991*
- *Bâche SER 02 BA*	*Steel*	*1991*
- *Fosse de rétention des caissons à huile dans la salle des machines*	*Concrete*	*1991*
- *Bâche TEG 102 BA - Tr 1*	*Steel*	*1992*
- *Bâche SER 01 BA*	*Steel*	*1992*
- *Filtre à sable au bâtiment déminé*	*Steel*	*1994*
- *Fosse de rétention, caniveaux, puisards au bâtiment déminé*	*Concrete*	*1994*
- *Filtre à sable au bâtiment déminé*	*Steel*	*1996*
- *Puisards RIS EAS - Tr 1/2*	*Concrete*	*1996*
- *Bâches SER 01BA et 02BA*	*Steel*	*1998*
- *Bâtiment réacteur – complément d'étanchéité de la peau interne (système **MAEVA**) : Tr 1 & 2*	*Concrete*	*1999*
- *Fosses de rétention - Locaux SIR Tr 1*	*Concrete*	*2000*
- *Caisses à huile - Tr 2*	*Concrete*	*2001*
- *Caniveaux au bâtiment déminé*	*Concrete*	*2002*
- *Fosse de rétention des bâches KER*	*Concrete*	*2002*
- *Fosse de neutralisation SDX01BA Tr 1*	*Concrete*	*2002*
- *Fosse de neutralisation SDX02 BA Tr 2*	*Concrete*	*2003*
- *Caniveaux RPE Tr 1 et 2*	*Concrete*	*2007*
- *Bâtiment réacteur – complément d'étanchéité de la peau interne (système **MAEVA**) : Tr 2*	*Concrete*	*2007*
- *Rétention BK 430 PS*	*Concrete*	*2008*
- *Locaux batteries Tr 1*	*Concrete*	*2008*
- *Bâtiment réacteur – complément d'étanchéité de la peau interne (système **MAEVA**) : Tr 2*	*Concrete*	*2009*
Tr 1	*Concrete*	*2010*
- *Rétention sous bâche SEK – SDM - Tr 1*	*Concrete*	*2010*
- *Rétention sous bâche à sonde au bâtiment déminé*	*Concrete*	*2010*
- *Rétention CRS – SDM – Tr 1*	*Concrete*	*2010*
- *Rétention locaux ASG. GFR. GGR - Tr 1*	*Concrete*	*2010*
- *Salle SEN, station de pompage - Tr 0*	*Concrete*	*2011*
- *Rétention EAS - Tr 1*	*Concrete*	*2011*
- *Bâche à fuel îlot Diesel – Tr 1 et 2*	*Steel*	*2012*
- *Bâche incendie – Tr 1*	*Steel*	*2012*
- *Aire de dépotage, station des boues – Tr 2*	*Concrete*	*2013*
- *Caniveau RPE, BAN – Tr 1*	*Concrete*	*2013*
- *Caniveaux BAN – Tr 2*	*Concrete*	*2013*
- *SDM, rétention local chimie – Tr 1*	*Concrete*	*2013*
- *Puisards RPE – Tr 2*	*Concrete*	*2013*

Nuclear Power Plants France (next)

EDF - BELLEVILLE S/LOIRE (next)

- Puisards 1&2 RPE 043CU et 2 RPE 011CU & 018CU – Tr 1/2	*Concrete*	*2014*
- Bat. Déminé. Local déconta. – Tr 0	*Concrete*	*2014*
- Batardeaux aéroréfrigérant – Tr 1	*Concrete*	*2014*
- Compensateurs tuyauterie BONNA – Tr 1	*Steel*	*2014*
- Rétention 0SDP506BA + 507BA + 510BA	*Concrete*	*2014*
- Sols SEN – Tr 0	*Concrete*	*2014*
- Puisard 2RPE043CU et 1RPE043 – Tr 1 et 2	*Concrete*	*2015*
- Puisard 2 RPE 007CU bâtiment MGC – Tr 2	*Concrete*	*2016*
- Bâche 2 EAS 12BA – Tr 2	*Concrete*	*2016*
*- Bâtiment réacteur – complément d'étanchéité de la peau interne (système **MAEVA**) – Tr1*	*Concrete*	*2016*
- Puisard 0 RPE 031 CU bâtiment MGC – Tr0	*Concrete*	*2016*
- Locaux : auxiliaires et groupe électro, cuve, batterie – bâtiment DUS – Tr2	*Steel/Concrete*	*2017*
- Rétentions station déminéralisation	*Concrete*	*2017*
*- Extrados (système **EV2**)*	*Concrete*	*2018*
- Fosse SEH T2	*Concrete*	*2018*
- RTFA extérieure – rétention	*Concrete*	*2018*
- Chantier DUS – locaux batteries	*Concrete*	*2018*
- Extrados – Système AL8/EV2	*Concrete*	*2018*
- Station des boues	*Concrete*	*2019*
- Voile CRF Tr 1/2	*Concrete*	*2019*
- Extrados – Système AL8/EV2	*Concrete*	*2019*
- Local filtration – Tr1	*Concrete*	*2020*
- Puisards de la déminé	*Concrete*	*2020*
- Traitement fissures RTFA	*Concrete*	*2020*
*- Extrados (système **EV2**)*	*Concrete*	*2020*

EDF - BLAYAIS (33)

- 2 bâches à eau potable	*Steel*	*1980*
- Bâche TER 03 BA	*Steel*	*1988*
- Fosses de rétention acide sulfurique 92 % et soude, bâtiment déminé	*Concrete*	*1989*
- Bâches KER, TER	*Steel*	*1989*
- Fosses de rétention des bâches KER, TER, SEK	*Concrete*	*1990-1991*
- Plaques et boîtes à eau de condenseurs - Tr 2	*Steel*	*1992*
- Bâches TEG	*Steel*	*1993*
- Fosses SDX + caniveaux + local des pompes au bâtiment déminé	*Concrete*	*1993*
- Plaques et boîtes à eau de condenseurs - Tr 1/2	*Steel*	*1993*
- Plaques et boîtes à eau de condenseurs - Tr 3/4	*Steel*	*1994*
- Boîtes à eau de condenseurs - Tr 2	*Steel*	*1997*
- Puisards eau ultime	*Concrete*	*1999*
- Puisards RIS-EAS - Tr 1	*Concrete*	*2001*
- Fosses de rétention RTGE	*Concrete*	*2002*
- Puisards RPE	*Concrete*	*2002*
- Rétention des bâches PTR	*Concrete*	*2004*
- Fosses TPTS – Tr 1/2/3/4	*Concrete*	*2007*
- Rétention des bâches SEK- KER	*Concrete*	*2007*
- Rétentions BK Tr 3	*Concrete*	*2008*

Nuclear Power Plants France (next)

EDF – BLAYAIS (next)

- Rétentions GGT Tr 1/2/3/4	*Concrete*	*2008*
- Puisards RIS EAS Tr 1/2/3/4	*Concrete*	*2008*
- Rétention sols bâtiment GGR Tr 3	*Concrete*	*2009*
- Sols, caniveaux et fosse de rétention bâtiment EGV	*Concrete*	*2009*
- Bâche SEK 002 et 3 filtres à sable – Tr 0	*Concrete*	*2012*
- Puisard 0HXA 001 PS – zone SOCATRI	*Concrete*	*2012*
- Dalle extérieure bâtiment huilerie SDP 003FI	*Concrete*	*2012*
- Rétention SEH – Tr 8	*Concrete*	*2012*
- Sol - bâtiment EGV4	*Concrete*	*2012*
- Sol - bâtiments EGV5 et 6	*Concrete*	*2012*
- Dalle LCM - bâtiment EGV	*Concrete*	*2012*
- Décanteur et caisse à huile – Tr 8	*Concrete*	*2013*
- Bâche SEH – Tr 9	*Concrete*	*2013*
- Bâche PTR – Tr 4	*Concrete*	*2013*
- Bâche SEB – Tr 4	*Concrete*	*2013*
- Puisard – locaux batteries	*Concrete*	*2014*
- Fond bâche 0TER001BA – Tr0	*Steel*	*2014*
- Tampons CRF – Tr2 et Tr4	*Steel*	*2015*
- Puisard RIS-EAS – Tr2	*Concrete*	*2015*
- Bâche TER 022.231.10 – Tr0	*Steel*	*2015*
- Bâche O TER 002 BA – Tr0	*Steel*	*2015*
- Station de pompage – Tampon	*Steel*	*2015*
- Bâche 0 TER 006 BA – Tr0 : Partiel	*Steel*	*2015*
- Puisards LHP et LHQ – Tr1 à 4	*Concrete*	*2016*
- Bâche JPT – Tr1	*Steel*	*2016*
- Puisard 2RPE10PS – Tr3 et 4	*Concrete*	*2016*
- Bâche JPT – SDM – Tr3	*Steel*	*2016*
- Bâche SEP001BA – Tr0	*Steel*	*2016*
- Puisards DT350	*Steel*	*2016*
- Bâche RCP – Tr2	*Steel*	*2017*
- Puisard LHP + Locaux batterie – Tr4	*Concrete*	*2017*
- Locaux batterie – Tr2	*Concrete*	*2017*
- Bâche JPT – SDM – Tr2	*Steel*	*2017*
- Puisard 2 RIS 006 BA – Tr2	*Concrete*	*2017*
- Puisards GGR – SDM – Tr4	*Concrete*	*2017*
- Bâtiment DUS	*Concrete*	*2017*
- rétention SRE	*Concrete*	*2017*
- Puisard RIS EAS BR – Tr4	*Concrete*	*2017*
- Bâche 8 TEG 003 BA – Tr8	*Steel*	*2018*
- Rétention 1 LHP 070 BA	*Concrete*	*2018*
- Fosse SEH TR8	*Concrete*	*2018*
- PTR – Tr2	*Concrete*	*2018*
- Bâche 8 TEG 207 BA	*Steel*	*2018*
- Caniveaux SER	*Concrete*	*2019*
- Bâche 9 TEG 205 BA	*Steel*	*2019*

Nuclear Power Plants France (next)

EDF – BLAYAIS (next)

- Bâche 8 JPT 501 BA	*Steel*	*2019*
- Fosse SEH Tr 8	*Concrete*	*2019*
- Bâches 2RCP002BA - 2RRI003RF - 2JPT301BA	*Steel*	*2019*
- Chantier PTR - Tr 4	*Concrete*	*2019*
- Bâche 4 RCP 002 BA	*Steel*	*2019*
- Bâche 4HK 015 FW	*Concrete*	*2019*
- Bâtiment DUS	*Concrete*	*2019*
- Station déminée	*Concrete*	*2019*
- Bâche à soude 2HK15FW – Tr2	*Concrete*	*2019*
- Bâche 8 TEG 208 BA	*Steel*	*2019*
- Bâche 89 TEG 207 BA	*Steel*	*2020*
- Rétention bâche à soude 2HK15FW – Tr2	*Concrete*	*2020*
- Rétention bâche à soude 4HK015FW – Tr4	*Concrete*	*2020*
- Bâches 3RCP002BA – 3JPT – 3RRI	*Steel*	*2020*
- Institut Bergonie – Sol	*Concrete*	*2020*
- Chantier sol hydrazine – Tr9	*Concrete*	*2020*
- Rétention KER	*Concrete*	*2020*
- Casemates PTR – TR 1 à 4	*Concrete*	*2020*
- Locaux batterie – Tr2	*Concrete*	*2020*

EDF - BUGEY (01)

- Fosses de rétention soude 30% dans BK N^{os} 2,3,4,5 à 3,20 m	*Concrete*	*1987*
- Fosse de rétention PTR 5	*Concrete*	*1987*
- Fosses de rétention TER 001 à 009 et 010 à 012 - Tr 2/3	*Concrete*	*1988*
- Bâches TEG 01 et 02 au BK	*Steel*	*1989*
- Fosses de rétention REA-TEP	*Concrete*	*1989*
- Caniveaux d'acide sulfurique et de soude au bâtiment déminé	*Concrete*	*1990*
- Caniveaux au bâtiment déminé (next)	*Concrete*	*1991*
- Fosses de rétention EAS de soude 25 à 33 % - Tr 4 et 5	*Concrete*	*1991*
- Fosse de rétention acide sulfurique 16 % et soude 10 % local chimie	*Concrete*	*1992*
- Fosse de rétention CLARTAN au bâtiment déminé - Tr 1	*Concrete*	*1992*
- Fosses de rétention d'acide sulfurique et de soude au bâtiment déminé	*Concrete*	*1992*
- Sol du bâtiment déminé	*Concrete*	*1992*
- Fosse de rétention PTR 2 et PTR 4	*Concrete*	*1992*
- Fosses RGV	*Concrete*	*1992*
- Fosse de rétention PTR 3	*Concrete*	*1993*
- Local laboratoire	*Concrete*	*1993*
- Bâche 9 TEG 02 BA	*Steel*	*1994*
- Fosse de rétention au laboratoire chimie - Tr 4/5	*Concrete*	*1994*
- Fosse de rétention des bâches à fuel	*Concrete*	*1994*
- Fosses de rétentions REA et TEP - Tr 2/3	*Concrete*	*1994*
- Massif ASG - Tr 4	*Concrete*	*1995*
- Bâche TEG 10 BA	*Steel*	*1995*
- Puisards RIS EAS	*Concrete*	*1995*
- Massif des pompes RCV	*Concrete*	*1995*
- Caniveaux RRI	*Concrete*	*1996*
- Puisards et caniveaux dans le BAN - Tr 2/3	*Concrete*	*1996*
- Puisards à la salle des machines - Tr 2/3	*Concrete*	*1996*

Nuclear Power Plants France (next)

EDF - BUGEY (next)

- Bâches JPP N° 1 et N° 2 - Tr 1	*Steel*	*1997*
- Tapes métalliques des tuyauteries BONNA - Tr 2/3	*Steel*	*1997*
- Bâches PTR 3 et 5	*Concrete*	*1998*
- Fosse de rétention Turbo Pompe Alimentaire - Tr 2	*Concrete*	*1998*
- Caniveaux BAN 2 et 3	*Concrete*	*1998*
- Puisards RIS EAS - Tr 1	*Concrete*	*1998*
- Caniveaux des BR - Tr 2/3 - 4/5	*Concrete*	*1999*
- Fosse de rétention Turbo Pompe Alimentaire - Tr 2 et 3	*Concrete*	*1999*
- Puisards RIS EAS - Tr 4	*Concrete*	*1999*
- Caniveaux et puisards - Tr 2/3 - 4/5	*Concrete*	*2000*
- Locaux électriques – Tr 2/3 – 4/5	*Steel*	*2000*
- Bâches TER.	*Steel*	*2000*
- Puisards RIS EAS - Tr 2	*Concrete*	*2000*
- Locaux électriques - Tr 3 et 4	*Concrete*	*2001*
- Rétention des bâches TER	*Concrete*	*2001-2002*
- Puisards SEK	*Concrete*	*2002*
- Puisards RPER	*Concrete*	*2002*
- Station de chloration - Locaux AMIB - rétentions javel, ammoniaque	*Concrete*	*2002*
- Rétention des bâches SEK	*Concrete*	*2002*
- Aire de dépotage acide sulfurique 96%, soude 50%, chlorosulfate 30%	*Concrete*	*2002*
- Fosse de rétention Tr 5	*Concrete*	*2003*
- Cases Concrete Tr 1	*Concrete*	*2004*
- Bâches TER 003 et 004BA	*Steel*	*2004*
- Fosse de rétention des bâches ETR 1 n° 0 et 2 - Tr 8	*Steel*	*2005*
- Bâche REA 001BA	*Steel*	*2005*
- Rétention des bâches ETR 1 n° 3 et 4	*Steel*	*2005*
- Rétention de la bâche ETD 1 n° 9 - Tr 5	*Steel*	*2005*
- Station pompage SDR - Tr 5	*Concrete*	*2009*
- Bâtiment déminé : caniveaux et rétentions zones BAN & BW	*Concrete*	*2010*
- Rétention SIR – huile - SdM Tr 2 et 3	*Concrete*	*2010*
- Rétentions acide borique - SdM niveau -7 - Tr 2 et 3	*Concrete*	*2010*
- Rétention acide sulfurique au bâtiment déminé	*Concrete*	*2010*
- Puisards RPE – niveau 7, zone BAN – Tr9	*Concrete*	*2012*
- Rétentions TPE et REA – Tr 0 et 9	*Concrete*	*2012*
- Rétention et aire de dépotage – Bâtiment CTF – Tr 4 et 5	*Concrete*	*2012*
- Rétention Exhaure – local piscine – Tr 1	*Concrete*	*2012*
- Caniveaux local BOC – zone BAN 9	*Concrete*	*2012*
- Bâches TER – Zone BAN – Tr 8	*Concrete*	*2012*
- Salle des machines – Bâtiment TPA 1 et 2 – Tr 3	*Concrete*	*2012*
- Puisards 0 RPE 003 PS et 006 PS – Zone BAN – Tr 2 et 3	*Concrete*	*2012*
- Rétention bâche soude 50% – Bâtiment déminé	*Concrete*	*2012*
- Sols et supports, Salle des Machines, Bâtiment TPA 1 et 2 – Tr 3	*Concrete*	*2012*
- Puisards ORTE 003 PS – Tr 0	*Concrete*	*2013*
- Tour aéroréfrigérante - grille des filtres – Tr 5	*Steel*	*2013*
- Déshuileurs et puisards FXS – Tr 2 et 3	*Concrete/Steel*	*2013*
- Rétentions 4RPE 006 PS et 9 RPE 001 PS	*Concrete*	*2013*
- Bâches 2CRF SDM – Tr 7 niv. -2	*Concrete*	*2013*
- Puisards HQS local E 22 - BANG – Tr 2	*Concrete*	*2013*

Nuclear Power Plants (next)

EDF - BUGEY (next)

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- *Bâches TEG – BAN 4 et 5*	*Steel*	*2013*
- *Bac CVI pour eaux de process*	*Steel*	*2013*
- *Bâche TEG – Tr 9*	*Steel*	*2013*
- *Sol CRF – SDM – Tr 2, 4, 5*	*Concrete*	*2013*
- *Rétention TER - BANG – Tr 8*	*Concrete*	*2013*
- *Déshuileurs – Tr 2 et 3*	*Steel*	*2013*
- *SDM, sols niveaux -7 et -10 – Tr 3*	*Concrete*	*2014*
- *Rétentions CTE Javel – Tr 1 et 2*	*Concrete*	*2014*
- *Tuyauteries CRF BONNA – Tr 3*	*Concrete*	*2014*
- *Rail Filtres Aéro 4.1 et 4.2*	*Steel*	*2014*
- *Sol SDM -7m – Tr 4*	*Concrete*	*2014*
- *Sol station de pompage – Tr 3*	*Concrete*	*2014*
- *Sol SDM niveau -7 et -10 – Tr 3*	*Concrete*	*2014*
- *Tuyauteries CRF BONNA – Tr 3*	*Concrete*	*2014*
- *SDM Tr2 et Puisard Sec*	*Concrete*	*2014*
- *RCV -7m – Tr 2 et 3*	*Concrete*	*2014*
- *Sol SDM – Tr 4*	*Concrete*	*2014*
- *Sol SDM – Tr 5*	*Concrete*	*2014*
- *Puisard SXS dans galerie SEC*	*Concrete*	*2014*
- *Divers rétention-pontage fissures*	*Concrete*	*2015*
- *Puisard – Tr9*	*Concrete*	*2015*
- *Puisard LPE – Tr4*	*Concrete*	*2015*
- *SOGEA bât CTF station antitartre – Tr 4 et 5*	*Concrete*	*2015*
- *SDM niveau -7 massifs pompe CVI / Puisard rétention TER et bâtiment 82 – Tr3*	*Concrete*	*2015*
- *Bâche 0 TEG 011 BA – toiture bât BK – Tr 2*	*Steel*	*2015*
- *Boîte à eau SNO 001/02 RF – Tr 5*	*Steel*	*2015*
- *Rétention ultime – Tr 5*	*Concrete*	*2015*
- *Rétention CTE – Zone aéro*	*Concrete*	*2016*
- *Rétention GFR – Tr 4 et 5*	*Concrete*	*2016*
- *Rétention station de déminéralisation – Tr8*	*Concrete*	*2016*
- *Rétention bâche BPO – Tr3*	*Concrete*	*2017*
- *Bâche 0 TEG 009 BA – Toit. Bât BK*	*Steel*	*2017*
- *Liner BR – Tr5*	*Concrete*	*2017*
- *Rétention bâche TER – Tr8*	*Concrete*	*2017*
- *Bâtiment DUS*	*Concrete*	*2017*
- *Puisard LPE – Tr8*	*Concrete*	*2017*
- *Fosse de neutralisation ETRU2*	*Concrete*	*2018*
- *Rétention des bâches à fioul*	*Concrete*	*2018*
- *Rétention sous bâche 8 SFD 001 BA*	*Concrete*	*2018*
- *Bâtiment déminé – Puisards ligne de rejet – Tr8*	*Concrete*	*2018*
- *TR 4/5 – Puisards radier*	*Concrete*	*2018*
- *Chantier DUS*	*Concrete*	*2019*
- *Aire de dépotage déminée*	*Concrete*	*2019*

Nuclear Power Plants (next)

EDF - BUGEY (next)

Rétention CTE – Tr8	*Concrete*	*2019*
- TR 4/5 – Bâche PTR – Caniveaux SDM	*Concrete*	*2019*
- Puisard EB06	*Concrete*	*2019*
- Rétention déminé – Tr8	*Concrete*	*2020*
- DUS Tr2/3 – aire de dépotage	*Concrete*	*2020*
- Chantier ROXTEC	*Concrete*	*2020*
- Puisard 4RPE006PS	*Concrete*	*2020*
- Bâche 1TER004BA	*Steel*	*2020*
- Bâtiment Diesel local D252 – Tr3/4	*Concrete*	*2020*
- Aire de dépotage déminée	*Concrete*	*2020*
- Aire de dépotage – Bâtiment CTE	*Concrete*	*2020*
- Rétentions 2 REA et 3 TEP	*Concrete*	*2020*
- Rétentions 9 TEP et 8 TER	*Concrete*	*2020*
- Sols SDM Tr 3	*Concrete*	*2020*
- Puisards 2 RPE 006 PS	*Concrete*	*2020*

EDF - CATTENOM (57)

- Bâtiment déminé - Tr 1/2 : Caniveaux sols, aire de dépotage acides	*Concrete*	*1986*
Fosses de rétention des chaînes de déminéralisation	*Concrete*	*1987*
- Charpentes des obturateurs du réfrigérant - Tr 3	*Steel*	*1988*
- Fosses de rétention au local de stockage d'acides - Tr 3/4	*Concrete*	*1988*
- Aire de dépotage acides + caniveaux au bâtiment déminé - Tr 3/4	*Concrete*	*1990*
- Supports de glaciation du système antigel des réfrigérants - Tr 3/4	*Steel*	*1989-1990*
- Tuyauteries de l'aéroréfrigérant - Tr 4	*Steel*	*1991*
- Bâches KER 17 et 18 BA	*Steel*	*1991*
- Fosse de neutralisation SDP 701 BA au bâtiment déminé - Tr 0	*Concrete*	*1993*
- Fosse de neutralisation SDP 702 BA au bâtiment déminé - Tr 0	*Concrete*	*1993*
- Puisards RIS EAS - Tr 1	*Concrete*	*1997*
- Tulipes des aéroréfrigérants - Tr 2	*Concrete*	*1998*
- Tulipes des aéroréfrigérants - Tr 1	*Concrete*	*1999*
- Bâtiment réacteur – complément d'étanchéité de la peau interne		
*(système **MAEVA**) : Tr 2/3*	*Concrete*	*1998*
Tr 1	*Concrete*	*1999*
Tr 4	*Concrete*	*2001*
Tr 4	*Concrete*	*2004*
- Puisards RIS-EAS - Tr 4	*Concrete*	*2003*
- Fosses de rétention soude et acide chlorhydrique à la déminé – Tr 0	*Concrete*	*2004*
- Caniveaux CAT	*Concrete*	*2005*
- Aires de dépotage acides - Tr 1/2 et 3/4	*Concrete*	*2005*
- Aires de dépotage acides - Tr 0 et Tr 9	*Concrete*	*2010*
- Tuyauteries CRF BONNA - Voies A et B - Tr 3	*Concrete*	*2011*
- Bâche KER 12BA	*Concrete*	*2011*
- Caniveau RPE - Tr 1	*Concrete*	*2011*
- Rétention acide Y A404 – Bâtiment déminé - Tr 0	*Steel*	*2011-12*
- Tuyauteries CRF BONNA - Voies A et B - Tr 2	*Concrete*	*2011-12*
- Supports de GV – massifs - Tr 2	*Concrete*	*2012*
- Rétentions et aires de dépotage, bâtiments CTE et CTF - Tr 1 et 2	*Concrete*	*2012*
- Sol condenseur - Tr 1, Tr 2 et Tr 4	*Concrete*	*2012*
- Puisards – bâches Diesel - Tr 1 à Tr 4	*Concrete*	*2012*

Nuclear Power Plants France (next)

EDF - CATTENOM (next)

- Bâche PTR – Tr 3	*Concrete*	*2012*
- Caniveau huilerie, local AT 538 - Tr 0	*Concrete*	*2012*
- Bâche KER 15BA -Tr 0	*Concrete*	*2012*
- Rétention SIR/SIT - Tr 2	*Concrete*	*2012*
- Aire de dépotage - bâche Diesel – Tr 3	*Concrete*	*2012*
- Compensateurs à ondes CRF – Tr 4	*Steel*	*2013*
- Puits CRF - SDM - Tr 4	*Concrete*	*2013*
- Rétentions et aires de dépotage – Bâtiments CTE et CTF – Tr 3 et 4	*Concrete*	*2013*
- Rétention GHE - Tr 4	*Concrete*	*2013*
- Fosse huilerie SKH - Tr communes	*Concrete*	*2013*
- Caniveaux BTE - Tr 0	*Concrete*	*2013*
- Tuyauteries CRF BONNA Voies A et B - Tr 4	*Concrete*	*2013*
- Caniveau OAS - Tr 1 et 2	*Concrete*	*2013*
- Rétentions OAR, pompe SEC SEN - Tr 1 et 2	*Concrete*	*2013*
- Sol bâtiment OAR - Tr 3 et 4	*Concrete*	*2013*
- Caniveaux des rétentions OAR – Tr 1/2	*Concrete*	*2014*
- Compensateurs SEC – Tr 2	*Steel*	*2014*
- Rétention BTE local QB 852 – Tr 4	*Concrete*	*2014*
- Rétentions + aires de dépotage Bâtiment CTE et CTF – Tr 3 et 4	*Concrete*	*2014*
- Rétention de la bâche à soude (PLH351) – Tr 3 et 4	*Concrete*	*2014*
- Bâche TER 014 BA – Tr 0	*Steel*	*2015*
- Puisard RPE – Tr1 à 4	*Concrete*	*2015*
- Bâche TER 016 BA – Tr 0	*Steel*	*2015*
- Puisards DT 350	*Concrete/inox*	*2015*
- Rétentions OSDP 002 BA – Tr 0	*Concrete*	*2015*
- Rétention chaîne n°1 – Tr 0	*Concrete*	*2016*
*- Bâtiment réacteur – complément d'étanchéité de la peau interne (système **MAEVA**) : Tr 1*	*Concrete*	*2016*
- Bâche KER 016 BA – Tr0	*Steel*	*2016*
- Bâtiment DUS – diesel ultime secours	*Concrete*	*2016*
- Massif pompe 1SFI 011 PO – local OA0403 – Bâtiment OAR – Tr1	*Concrete*	*2016*
- Rétention – BAS – Tr1	*Concrete*	*2016*
- Rétention puisard 3 RPE 16 PS – Tr3	*Concrete*	*2016*
- Rétention bâche CTE – Tr8	*Concrete*	*2016*
- Bâche KER 011 BA	*Steel*	*2016*
- Bâche à fioul + puisard – Bâtiment DUS – Tr3	*Concrete*	*2017*
- Rétention TES/BTE	*Concrete*	*2017*
- Bâtiment DUS – Tr2 et 3	*Concrete*	*2017*
- Bâche PTR – TR4	*Concrete*	*2017*
- Rétentions 1 RPE 015/016 PS	*Concrete*	*2017*
- Compensateur BONNA – TR4	*Concrete*	*2017*
- Rétentions CTE – CTF TR9	*Concrete*	*2017*
- Rétention – BAS – Tr 4	*Concrete*	*2017*
- Bâche PTR – Tr 1	*Concrete*	*2017*
- Fosses BTE et TEU	*Concrete*	*2017*

Nuclear Power Plants France (next)

EDF - CATTENOM (next)

- Bâtiment DUS – Tr4	*Concrete*	*2018*
- Rétention 2 PTR 018 CU – Tr2	*Concrete*	*2018*
- Cunettes – Tr2 et 3	*Concrete*	*2018*
- Aires de dépotage - Bâtiment DUS – Tr1	*Concrete*	*2018*
- Fosse SEK – Tr2	*Concrete*	*2018*
- Réfection OAR – Tr3/4	*Concrete*	*2018*
- Sols OAR – Tr1/2	*Concrete*	*2018*
- Bâtiment DUS – Tr4 – aire de dépotage	*Concrete*	*2018*
- Sous-sol de la déminée	*Concrete*	*2018*
- CTE / CTF – Tr1/2	*Concrete*	*2018*
- Bâtiment DUS - Tr3	*Concrete*	*2019*
- Bâtiment DUS - Tr1	*Concrete*	*2019*
- Peau composite Maeva BR - Tr1	*Concrete*	*2019*
- Fosse SEK - Tr 4	*Steel*	*2019*
- Chantier sols OAR - Tr1/2	*Concrete*	*2019*
- Réservoirs OKER et OSEK	*Steel*	*2019*
- Rétention SIR et phosphate	*Concrete*	*2019*
- Bâtiment DUS – Tr4 – local batterie	*Concrete*	*2019*
- Bâtiment BTE – galerie/laverie	*Concrete*	*2019*
- Puisards SEK – Tr1/2/3/4	*Concrete*	*2019*
- Bâche SEK 11BA	*Steel*	*2019*
- SDM – Réfection des points bas	*Concrete*	*2020*
- Bâtiment DUS	*Concrete*	*2020*
- Bâche SEK 011 BA	*Steel*	*2020*
- Galerie laverie BTE	*Concrete*	*2020*

EDF - CHINON (37)

- Caniveaux de la chaîne de déminéralisation - Tr 1/2	*Concrete*	*1988*
- Fosses de rétention des cuves ions-cations au bâtiment déminé	*Concrete*	*1989*
- Fosses de neutralisation SDX 011 BA et SDX 012 BA au bâtiment déminé	*Concrete*	*1989*
- Bâche KER 07 BA	*Steel*	*1989*
- Filtres à sable au bâtiment déminé	*Steel*	*1990*
- Dégazeur au bâtiment déminé	*Concrete*	*1990*
- Bâche SEK 01 BA	*Steel*	*1990*
- Bâches TER 01 BA et 02 BA	*Steel*	*1990*
- Déchloreur au bâtiment déminé	*Steel*	*1990*
- Bâche TER S2	*Steel*	*1991*
- Bâche TEG	*Steel*	*1991*
- Bâches KER 01 BA, 02 BA, 03 BA	*Steel*	*1991*
- Bâche SEK 02 BA	*Steel*	*1991*
- Fosse de rétention des stockages bases / acides au bâtiment déminé	*Concrete*	*1991*
- Bâche JPI	*Steel*	*1991*
- Bâche à boues OSTBO1BA	*Concrete*	*1991*
- Sol de fosse de rétention du local N486	*Concrete*	*1992*
- Bâche à eau filtrée au bâtiment déminé	*Concrete*	*1992*
- Bâches KER 05 BA, 06 BA	*Steel*	*1992*

Nuclear Power Plants France (next)

EDF - CHINON (next)

- Puits de stockage SCMI	*Steel*	*1993*
- Fosse de rétention PTR 3	*Concrete*	*1993*
- Caisses à huile - Tr 2	*Concrete*	*1993*
- Bâche TEU 06 BA	*Steel*	*1993*
- Filtres à sable 05 DA, 06 BA	*Steel*	*1993*
- Bâche PTR 3	*Concrete*	*1994*
- Fosse de rétention des bâches KER - TER	*Concrete*	*1994*
- Ballon SAP	*Steel*	*1994*
- Murs au bâtiment GUS	*Concrete*	*1995*
- Décanteur au bâtiment déminé	*Concrete*	*1995*
- Fosses de rétention des bâches SEK - KER	*Concrete*	*1995*
- Galeries sous RPE	*Concrete*	*1995*
- Fosse de rétention Javel au bâtiment déminé	*Concrete*	*1995*
- Bâche 002 BA - Tr 3/4	*Concrete*	*1996*
- Sol des locaux RCV - Tr 2	*Concrete*	*1996*
- Puisards RIS EAS - Tr 1	*Concrete*	*1997*
- Bâche à boues à la station eaux usées	*Concrete*	*1997*
- Cadres métalliques décontaminables	*Steel*	*1997*
- Local 486 – BAN Tr 3/4	*Concrete*	*1999*
- Locaux batteries – Tr 1/2/3	*Concrete*	*2001*
- Puisards et caniveaux RPE	*Concrete*	*2002*
- Fosses de rétentions REA et TEU - BAN 3 et 9	*Concrete*	*2002*
- Locaux batteries - Tr 4	*Concrete*	*2002*
- Station de chloration - Tr 1/2/3/4	*Concrete*	*2005*
- Fosse de neutralisation 012 BA au bâtiment déminé	*Concrete*	*2005*
- Local des pompes au bâtiment déminé	*Concrete*	*2005*
- Aire de dépotage des réactifs au bâtiment déminé	*Concrete*	*2005*
- Caniveaux RPE des BAN 8 et 9	*Concrete*	*2006*
- Puisards RIS EAS - Tr 2	*Concrete*	*2006*
- Bâche TEG 205 BA - Tr 1	*Concrete*	*2007*
- Bâche TEG 205 BA - Tr 2	*Concrete*	*2007*
- Fosse de rétention réactifs au bâtiment déminé	*Concrete*	*2007*
- Aire de dépotage BdS n °1	*Concrete*	*2008*
- Fosses de rétention BDF 2/3	*Concrete*	*2009*
- Aire de dépotage des bâches GGR et GFR Tr 1	*Concrete*	*2009*
- Aire de dépotage BdS n°2	*Concrete*	*2010*
- Cunette GT5 - Tranche commune	*Concrete*	*2010*
- Radier des bâches GGR/GFR - Tr 2	*Concrete*	*2010*
- Réservoir eau potable SEP 001BA - Tr 2	*Concrete*	*2011*
- Rétention bâtiment Diesel - Tr 2	*Concrete*	*2011*
- GT 30 galerie technique - Tr 0	*Concrete*	*2011*
- Bâche à fuel 1JPD 001BA - Tr 0	*Steel*	*2011*
- Fosse ascenseur, bâtiment LIDEC - Tr 0	*Concrete*	*2011*
- Local maintenance, Zone déballage, Zone Scie Kasto bât. LIDEC - Tr 0	*Concrete*	*2011-12*
- Batardeaux CRS - Tr 0	*Steel*	*2012*
- Bâche LHP-LHO - Tr 3	*Concrete*	*2012*
- Rétention PTR - Tr 1	*Concrete*	*2012*
- Rétention SEK-KER-TER - Tr 2	*Concrete*	*2012*

Nuclear Power Plants France (next)

EDF - CHINON (next)

- Galerie technique 108 - BL	*Concrete*	*2012*
- Rétention PTR - Tr 4	*Concrete*	*2013*
- Châssis tambour filtrant ICRF004TF - Tr 1 et 2	*Steel*	*2013*
- Châssis de motoréducteur - Tr 3 et 4	*Steel*	*2013*
- Bâtiment CTE monochloramine, rétentions javel et ammoniaque - Tr 8	*Concrete*	*2013*
- Aire de dépotage de la déminée - Tr 0	*Concrete*	*2013*
- Batardeaux CRF - Tr 0	*Steel*	*2013*
- Bâtiment CTE monochloramine, rétentions – Tr 9 Niveau 0 Javel, ammoniaque, Niveau-1 Javel	*Concrete*	*2014*
- Galerie technique GT14, cunettes – Tr 0	*Concrete*	*2014*
- Batardeau CRF – Tr 4 et 8	*Steel*	*2014*
- Rétention CTE, 1 Massif sur chaque Tranche – Tr8 et 9	*Concrete*	*2014*
- SDM caniveaux SEH – Tr 1 et 3	*Concrete*	*2014*
- Huilerie SDM – Tr 0	*Concrete*	*2014*
- Puisards rétention cuves Diesel voies A et B – Tr 1 à 4	*Concrete*	*2015*
- Puisards RPE DT 350 – toutes Tr	*Concrete/inox*	*2015*
- Ballon SAR – Tr 1	*Steel*	*2015*
- Rétention local YAC – Tr 3 et 4	*Concrete*	*2015*
- Rétention CTE – Tr 8	*Concrete*	*2015*
- B3 – Tuyauteries CRF BONNA	*Concrete*	*2015*
- Local YAC – Tr 0	*Concrete*	*2015*
- Bâche REA001BA – Tr 9	*Steel*	*2015*
- Fosse 0 SDX 011 BA – Tr 0	*Concrete*	*2015*
- Puisards 1RPE012PS – 0SREPO6 et 7CU	*Steel*	*2015*
- Bâche 0 SDX 012 BA – Tr 0	*Concrete*	*2016*
- Fosse SEH – SdM – Tr 3	*Concrete*	*2016*
- Fosses SDX 005 à 008 – Tr0	*Concrete*	*2016*
- Bâche 4 RCP 002 BA	*Steel*	*2016*
- Rétention émulseur diesel – Tr1 à 4	*Concrete*	*2016*
- Rétention déminée – Tr0	*Concrete*	*2016*
- Emulseur LHP/LHQ – Tr2	*Concrete*	*2016*
- Rétention KER – Tr0	*Concrete*	*2016*
- Fosse SEH – SDM – Tr4	*Concrete*	*2017*
- Fosse de rétention – Bâtiment CTF	*Concrete*	*2017*
- rétentions bâches KER – Toutes TR	*Concrete*	*2017*
- Fosses SEH – SdM – diverses Tr	*Concrete*	*2018*
- Conduites CRF	*Concrete*	*2018*
- Rétention KER – zone 2 bis	*Concrete*	*2018*
- LIDEC – aire de dépotage – Tr3/4	*Concrete*	*2018*
- OAR – Tr 3/4	*Concrete*	*2018*
- Rétention KER	*Concrete*	*2019*
- Caniveaux niveau -3.50 m – SDM	*Concrete*	*2019*
- Rétention SEK – Tr1	*Concrete*	*2019*
- Local NA 486 du BAN Tr9	*Concrete*	*2020*
- Puisards SDM	*Concrete*	*2020*
- Réfection caniveaux puisards	*Concrete*	*2020*
- Fosses SEH – Tr2	*Concrete*	*2020*
- Bâche 9TEG205RA	*Steel*	*2020*

Nuclear Power Plants France (next)

EDF/TRACTEBEL - CHOOZ A (08)

- Bâche A.S.G. : plafond	*Concrete*	*1986*
- Caverne-réacteur : étanchéité interne	*Steel*	*1987*
- Rétention SENA eaux contaminées	*Concrete*	*2011*
- Bâche TEU 507	*Steel*	*2014*
- Rétention des bâches TEU	*Concrete*	*2014*
- Piscine cuve pour opérations démantèlement	*Steel*	*2015*
- Rétention du local traitement d'eau	*Concrete*	*2016*
- Piscine	*Steel*	*2017*

EDF - CHOOZ B (08)

- Contrat Revêtements Spéciaux « PL. »	*Concrete/Métal*	
1988/1995		
- Compartiment chargement de la piscine des BK - Tr 1 et 2	*Concrete*	*1989*
- Puisards RIS EAS - Tr 1 et 2	*Concrete*	*1994*
- Fosses de rétention à la station de chloration - Tr 2	*Concrete*	*1997-1998*
- Aire de dépotage à la station de chloration - Tr 2	*Concrete*	*1998*
- Réservoir d'eau potable à la station SEP – voies A et B	*Concrete*	*1998*
- Station de chloration - Tr 1 et 2	*Concrete*	*1998-1999*
- Fosse de rétention à la station de traitement de l'eau en circulation	*Concrete*	*1999*
*- Bâtiment réacteur : complément d'étanchéité de la peau interne (système **MAEVA**) - Tr 1*	*Concrete*	*1999*
- Aire de dépotage acides au bâtiment déminé	*Concrete*	*2000*
- Caniveaux au bâtiment déminée	*Concrete*	*2005*
- Caniveaux dans le BAN	*Concrete*	*2006*
- Puisards RIS EAS - Tr 1/2	*Concrete*	*2006*
- Bâches SEK et KER	*Steel*	*2007*
- Plaques d'échangeurs tubulaires CVI	*Concrete*	*2008*
- Bâtiments réacteur - Tr 1 & 2 – extérieur dôme et voiles	*Concrete*	*2010*
- Caniveaux - SDM - Tr 1	*Concrete*	*2011*
- Aire de dépotage, bâtiment ammoniaque - Tr 2	*Concrete*	*2011*
- Fosse de rétention, caniveau, stockage, bâtiment ammoniaque - Tr 1 et 2	*Concrete*	*2011*
- Local Morpholine / SIR - SDM – cuvettes – Tr 2	*Concrete*	*2011*
- Fosse Javel – Tr 1 et 2	*Concrete*	*2011*
- Réservoirs TEU – 501/502/503 BA KER et 504/505 001BA	*Concrete*	*2011*
- Sol magasin stockage effluents - Tr 0	*Concrete*	*2012*
- Terrasse extérieure BAN - Tr 0	*Concrete*	*2012*
- Bâche Diesel	*Steel*	*2012*
- Rétention KER	*Concrete*	*2012*
- Puisards RIS/EAS,	*Concrete*	*2012*
- Locaux batterie	*Concrete*	*2012*
- Fosse Javel, bâtiment CTF - Tr 1	*Concrete*	*2012*
- Tuyauteries CRF BONNA	*Concrete*	*2012*
- Toit ext. Bâtiment Réacteur - Tr 1 et 2	*Concrete*	*2012-13*
- Fosse neutralisation OSDA 812BA au bâtiment déminé - Tr 0	*Concrete*	*2013*
*- Bâtiment réacteur : complément d'étanchéité de la peau interne (système **MAEVA**) - Tr 2*	*Concrete*	*2013*
- Aire de stockage et de transit au bâtiment déminé - Tr 0	*Concrete*	*2013*
- Fosse CTF - Tr 2	*Concrete*	*2013*

Nuclear Power Plants France (next)

EDF - CHOOZ B (08) (next)

- *Bâches TEU 506/507*	*Inox*	*2013*
- *Rétention des bâches TEU 506/507*	*Concrete*	*2014*
- *Cage d'ascenseur piscine – Tr 2*	*Steel*	*2014*
- *Puisards 111 et 112CU – Tr 1*	*Concrete*	*2014*
- *Puisards 182CU Bases BL et ARPE 201CU BTE – Tr 2*	*Concrete*	*2014*
- *Tuyauterie CRF BONNA – Tr 1*	*Concrete*	*2014*
- *Puisards RIS/EAS, RPE – Tr 1*	*Concrete*	*2014*
- *Fosse pompes primaire au BTE – Tr 1*	*Concrete*	*2014*
- *Aire TFA – Toutes tranches*	*Concrete*	*2014*
- *Rétention bâches SEK KER*	*Concrete*	*2014*
- *Fosse fantôme – Tr 0*	*Concrete*	*2014*
- *Fosse entretien pompe primaire – Tr 0*	*Concrete*	*2014*
- *Puisard RPE – Tr 1 et 2*	*Concrete*	*2014*
- *Fosse acide – Tr0*	*Concrete*	*2014*
- *Tuyauteries CRF BONNA – Tr 2*	*Concrete*	*2015*
- *Rétention condenseur en SDM – Tr 1 et 2*	*Concrete*	*2015*
- *Fosse SEK – Tr1*	*Concrete*	*2017*
- *Fosse de chargement du BK2 – Tr2*	*Concrete*	*2017*
- *Bâtiment DUS*	*Concrete*	*2017*
- *Bache 2 TEG 101 BA – BAN – TR2*	*Steel*	*2017*
- *Pieds de réservoirs KER TER SEK*	*Steel*	*2017*
- *Rétention PTR*	*Concrete*	*2018*
- *Système MAEVA*	*Concrete*	*2018*
- *Fosse ESH – Tr2*	*Concrete*	*2018*
- *Chaine de la déminée*	*Concrete*	*2018*
- *Aire dépotage Huilerie 2HAA 005BA*	*Concrete*	*2019*
- *Chaine de la déminée – Tr0*	*Concrete*	*2019*
- *Bâtiment DUS*	*Concrete*	*2019*
- *Aire dépotage STC*	*Concrete*	*2019*
- *Chantier 1 LHQ 450 BA*	*Concrete*	*2019*
- *Bâches 0 SDA401/402 BA*	*Steel*	*2020*
- *Piscine BK1 fosse de chargement – Tr1*	*Concrete*	*2020*
- *Chantier TEP – Tr2*	*Concrete*	*2020*
- *Aire de dépotage CTE – Tr1*	*Concrete*	*2020*
- *Aire de dépotage CTE – Tr2*	*Concrete*	*2020*

Nuclear Power Plants France (next)

EDF - CIVAUX (86)

- Contrat Revêtements Spéciaux « PL. »	*Concrete/Métal*	*1993/1998*
- Puisards RIS EAS - Tr 1	*Concrete*	*1994*
- Compartiment chargement de la piscine du BK - Tr 1	*Concrete*	*1995*
- Puisards RIS EAS - Tr 2	*Concrete*	*1996*
- Compartiment chargement de la piscine du BK - Tr 2	*Concrete*	*1997*
- Aires de dépotage extérieures des bâtiments diesel Tr 1 et 2	*Concrete*	*1998-1999*
- Station de chloration Tr 1 et 2	*Concrete*	*1998-1999*
- Bâches TEG - BAN Tr 1 et Tr 2	*Steel*	*2000*
- Bâches PTR	*Steel*	*2003*
- Fosse de rétention PTR - Tr 2	*Concrete*	*2003*
*- Bâtiment réacteur : complément d'étanchéité de la peau interne (système **MAEVA**) - Tr 1*	*Concrete*	*2007*
- Bâtiments réacteur - Tr 1 & 2 – extérieur dôme et voiles	*Concrete*	*2008*
- Bâches SEA/TEG	*Steel*	*2008*
- Rétention et caniveaux zone Socatri	*Concrete*	*2010*
- Rétention KER-SEK-TER	*Concrete*	*2012*
- Batardeaux aéroréfrigérants – Tr 2	*Concrete*	*2012*
- Rétentions YC 0401+05 et YC 0406+07 – Tr 0	*Concrete*	*2014*
- Fissures sur voiles des BAN / BAS – Tr 2	*Concrete*	*2014*
- Bâche 0SEA 51BA – Tr 0	*Steel*	*2014*
- Fosse chargement BK2 – Tr 2	*Concrete*	*2014*
- Fosse d'exhaure, soude, bisulfite, chlorure ferrique, acide chlorhydrique, morpholine et hypochlorite de sodium – Tr 0	*Concrete*	*2014*
- Bâche KER005BA – Tr 0	*Steel*	*2014*
- Compensateur A11 – Tr 2	*Steel*	*2015*
- Puisard LHP001PS – Tr 1	*Concrete*	*2015*
- Sol + plinthes local ATAC – Tr 0	*Concrete*	*2015*
- Bâche 0 SEK 002 BA – Tr 0	*Steel*	*2015*
- Zone de dépotage BDS	*Concrete*	*2015*
- Traitement fissures BL hors zone – Tr 1	*Concrete*	*2016*
- Bâche 0 SEK 003 DA – Tr 0	*Steel*	*2016*
- Aire de dépotage en zone déminée	*Concrete*	*2016*
- Fissures ADN 2L01 – Voie A et B – BAS – Tr2	*Concrete*	*2017*
- Bâtiment DUS	*Concrete*	*2017*
- 3 ballons JPV	*Steel*	*2017*
- - Puisard SEK – Tr2	*Concrete*	*2018*
- - DUS	*Concrete*	*2018*
- - Rétention SEK KER TER – Tr 1	*Concrete*	*2018*
- - TR0 – Déminé	*Concrete*	*2018*
- - Aire de dépotage Tr 0, 1, 2	*Concrete*	*2019*
- - Fosse UV	*Concrete*	*2019*
- - DUS – Tr2	*Concrete*	*2019*
- - DUS – Tr1	*Concrete*	*2019*
- - Rétention puisard déminé	*Concrete*	*2020*
- - Aire de dépotage 1LHQ	*Concrete*	*2020*

Nuclear Power Plants France (next)

EDF - CREYS MALVILLE (38)

- Fosses de rétention soude 30 %	*Concrete*	*1987*
- Fosses de rétention fuel	*Concrete*	*1987*
- Rétention, caniveaux et puisards soude et acide sulfurique au BAM	*Concrete*	*1987*
- Caniveaux dans le BAN - zones 2 et 3	*Concrete*	*1988*
- Rétention + caniveaux + fosse de récupération d'effluents – bât. Diesel	*Concrete*	*1989*
- Caniveaux dans le BAN	*Concrete*	*1989*
- Fosse de rétention de soude 50 % au B.T.E.	*Concrete*	*1989*
- Boîtes à eau de condenseur	*Steel*	*1991*
- Extérieur du dôme du bâtiment réacteur	*Concrete*	*1991*
- Fosse de rétention des effluents basiques de la STE	*Concrete*	*1992*
- Bâches SEA	*Steel*	*1993*
- Bâche SRIA 01 BA et SRIB 01 BA	*Steel*	*1993*
- Traitement de la portée de frottement du tambour filtrant Voie A	*Steel*	*1993*
- Filtre à sable 02 FS	*Steel*	*1993*
- Filtre à sable 01 FS	*Steel*	*1994*
- Bâche SDO 002 BA - SDM	*Steel*	*1994*
- Bâche N°9 TEG 02 BA	*Steel*	*1994*
- Fosses de neutralisation SDX 001 BA et SDX 002 BA	*Concrete*	*1995*
- Local Source AE 108	*Concrete*	*1996*
- Aire de dépotage du BAN	*Concrete*	*1996*
- Bâches SDP 1.2.3. BA du BAN	*Concrete*	*1997*
- Fosses de rétention TEU 01, 02, 03 et 04 BA du STE	*Concrete*	*1997*
- Extérieur du dôme du bâtiment réacteur : entretien de surface	*Concrete*	*1997*
- Rétention KN 005-14 BA, 005-10 BA, 006, 501, 502, 903, 904 - STE	*Concrete*	*1997*
- Aire de dépotage soude et acide sulfurique - STE	*Concrete*	*1997*
- Sol rétention du local des réactifs - SDM	*Concrete*	*2010*
- Rétentions effluents sodés 001 / 002	*Concrete*	*2012*
- Rétention TRICE : récupération toutes eaux, en extérieur voie A	*Concrete*	*2012*
- Voiles et sol au local MB 103	*Concrete*	*2012-13*
- Caniveaux de l'huilerie	*Concrete*	*2015*
- Réacteur super Phoenix – Bâches KER	*Concrete*	*2017*
- Rétention local KN01 – pompe KER	*Concrete*	*2017*
- Caniveau cuve à fuel	*Concrete*	*2019*

Nuclear Power Plants France (next)

EDF - CRUAS (07)

- *Sols de rétention au bâtiment déminé*	*Concrete*	*1984*
- *Fosse de rétention du poste pompage acide sulfurique au bâtiment déminé*	*Concrete*	*1989*
- *Structures d'intérieurs d'aéroréfrigérants*	*Steel*	*1989*
- *Ondes de dilatation des tuyauteries de contournement – aéroréfrigérant - Tr 2*	*Steel*	*1990*
- *Caniveau d'H2SO4 98 % au bâtiment déminé*	*Concrete*	*1991*
- *Bâches JPT N° 1, 2, 3, 4 - Tr 3*	*Steel*	*1991*
- *Fosse de neutralisation SDX 02 BA*	*Concrete*	*1993*
- *Fosse de neutralisation SDX 01 BA*	*Concrete*	*1994*
- *Bâche à soude 50% N°05DX/003 BA*	*Steel*	*1994*
- *Sol de la zone Est du BAC.*	*Concrete*	*1994*
- *Décanteur SDP 001 BA au bâtiment déminé*	*Steel*	*1995*
- *Fosse de rétention SRE 5 BA*	*Concrete*	*1995*
- *Local réactif T8 - Tr 3/4*	*Concrete*	*1996*
- *Bâtiment déminé : Filtre à sable SDP 01*	*Steel*	*1996*
Bâche à soude SDX 04 BA	*Steel*	*1996*
- *Bâche REA*	*Steel*	*1999*
- *Locaux batteries - Tr 2 et 3*	*Concrete*	*2001*
- *Locaux batteries - Tr 1*	*Concrete*	*2002*
- *Local décontamination Zone 1 – Bâtiments locaux chauds*	*Concrete*	*2002*
- *Déminée : fosse de neutralisation 2/0 SDX*	*Concrete*	*2003*
- *Fosse de rétention Mercure Tr 1/2*	*Concrete*	*2003*
- *Caniveaux RPE*	*Concrete*	*2004*
- *Locaux batteries*	*Concrete*	*2004*
- *Fosse de rétention GCC*	*Concrete*	*2004*
- *Bâche laverie*	*Concrete*	*2004*
- *Puisards RIS EAS -Tr 1*	*Concrete*	*2005*
- *Bâches SEK KER TER 001 – 002 – 003*	*Steel*	*2005*
- *Caniveaux de la salle des machines – Tr 4*	*Concrete*	*2007*
- *Puisards RIS-EAS – Tr 2*	*Concrete*	*2007*
- *Tuyauteries CRF BONNA – Tr 1, 2, 3 et 4*	*Concrete*	*2008*
- *Rétention acides atelier déminé*	*Concrete*	*2008*
- *Tuyauteries CRF BONNA – Tr 1 et 4*	*Concrete*	*2009*
- *Locaux batteries – Tr 1 et 2*	*Concrete*	*2010*
- *Caniveaux SDM niveau -3,5 – Tr 4*	*Concrete*	*2010*
- *Tuyauteries CRF BONNA – Tr 4*	*Concrete*	*2012*
- *Bâches SEK 002 – TER 003 – SEK 003*	*Steel*	*2012*
- *Sol station antitartre – Zone CTF – Tr 3 et 4*	*Concrete*	*2012*
- *Rétentions PTR – Tr 1 à 4*	*Concrete*	*2012*
- *Caniveaux - BK – Tr 1*	*Concrete*	*2012*
- *Rétentions SEK-KER-TER – Tr 0*	*Concrete*	*2012*
- *Cunettes dans bâtiment BL – Tr 1 et 2*	*Concrete*	*2012*
- *Cunettes dans bâtiment BK – Tr 1*	*Concrete*	*2012*
- *Rétentions GGR-GFR et locaux batteries, Salle des Machines – Tr 3*	*Concrete*	*2012*
- *Rétention LHQ-LHP des bâches à fuel – Tr 1 à 4*	*Concrete*	*2012*
- *Fosse des condenseurs CEX à la SDM – Tr 1 et 3*	*Concrete*	*2012*
- *Rétention et aire de dépotage – Zone RPE – Bât RGV – Tr 0*	*Concrete*	*2013*
- *Bâche KER 003BA*	*Steel*	*2013*

Nuclear Power Plants France (next)

EDF - CRUAS (next)

- Fosse CEX - SDM – Tr 1 et 2	*Concrete*	*2013*
- Rétention locaux « chauds » – Tr 0	*Concrete*	*2013*
- Bâtiment BL niveau -3 – Tr 1 à 4	*Concrete*	*2013*
- Rétentions PTR – Tr 3 et 4	*Concrete*	*2013*
- Caniveaux (x3) - BAN – Tr 2	*Concrete*	*2013*
- Tuyauteries CRF BONNA – toutes tranches	*Concrete*	*2013*
- Sol de rétention - SDM – Tr 3 et 4	*Concrete*	*2013*
- Bâche SEK 003BA	*Concrete*	*2013*
- Rétentions du Bâtiment CTE – Tr 3/4	*Concrete*	*2013*
- Labo sol plate-forme – Tr 0	*Concrete*	*2013*
- Sol de rétention à la SDM – Tr 1	*Concrete*	*2014*
- Sol des galeries – toutes tranches	*Concrete*	*2014*
- Bâche KER 004BA	*Steel*	*2014*
- Bâtiment CTE monochloramine – Tr 3/4	*Concrete*	*2014*
- Bâche KER 002BA	*Steel*	*2014*
- SDM sous-sol -3.5 – Tr 2	*Concrete*	*2014*
- Etanchéité locaux TEPREA – Tr 8	*Concrete*	*2014*
- Rétention KER – Tr 0	*Concrete*	*2014*
- Bâche REA002BA – Tr 9	*Steel*	*2015*
- Bâtiment CTE – Tr 9	*Concrete*	*2015*
- BAN étanchéité NE204 et NF203 – Tr 9	*Concrete*	*2015*
- Rétention bâche à soude dans déminée – Tr 0	*Concrete*	*2015*
- Caniveau BAC (bâtiment des déchets) – Tr 0	*Concrete*	*2015*
- Bâche PTR 001BA	*Steel*	*2015*
- Bâche KER 007 – Tr 0	*Steel*	*2015*
- Caniveaux BAC – hors tranche	*Concrete*	*2015*
- Puisards RPE – toutes Tr	*Concrete*	*2015*
- Rétentions Diesel – Tr 1 à 4	*Concrete*	*2015*
- Sols stations de pompage – Tr 3	*Concrete*	*2015*
- Bâche KER 006 BA	*Steel*	*2015*
- Cylindre eau du Rhône et boues – Bâtiment déminé	*Steel*	*2016*
- Rétention SRE – Locaux chauds	*Concrete*	*2016*
- SdM sous-sol niveau -3.5 – Tr 1	*Concrete*	*2016*
- Décanteur – Tr 0	*Concrete*	*2016*
- Rétentions Diesel LHP-LHQ	*Concrete*	*2016*
- Rétentions bâches à fioul – Toutes Tr	*Concrete*	*2016*
- Rétentions SEK KER – Tr0	*Concrete*	*2016*
- Bâche 0 KER 005 BA – Tr0	*Steel*	*2016*
- Aire dépotage CTF – Tr1/2	*Concrete*	*2016*
- SDM -Sol -3.5m – Tr4	*Concrete*	*2017*
- Rétentions à fioul – Tr1 à 3	*Concrete*	*2017*
- Rétentions locaux chauds – Tr0	*Concrete*	*2017*
- Rétentions LHP, LHQ + SDM – Tr2 et 3	*Concrete*	*2017*
- Aire de dépotage – Local CTF – Tr9	*Concrete*	*2017*
- Bâtiment DUS	*Concrete*	*2017*
- Bâche KER 001 BA	*Steel*	*2017*
- Aire de dépotage – bât CTF – TR3	*Concrete*	*2017*
- Galerie, puisard n°2, rétention huile BAC – fosse GC6 – TR0	*Concrete*	*2017*

Nuclear Power Plants France (next)

EDF - CRUAS (next)

-	*Rétention bâche SEK/TER - Tr0*	*Concrete*	*2018*
	- Conduites CRF – Tr4	*Concrete*	*2018*
	- SDM – Niv -3.50m – Tr2	*Concrete*	*2018*
	- Rétention SDM – Tr4	*Concrete*	*2018*
	- Rétention 9RPE & Fosse de neutralisation	*Concrete*	*2019*
	- SDM Sous-sol - Tr 2	*Concrete*	*2019*
	- Rétention CTF	*Concrete*	*2019*
	- Local station de pompage	*Concrete*	*2019*
	- SDM – Niv -3.50m – Tr2	*Concrete*	*2019*
	- Traitement des CAO – Tr3	*Steel*	*2020*
	- Bâche SEK	*Steel*	*2020*
	- Chantier BEGV	*Concrete*	*2020*
	- Rétention SDM – Tr4	*Concrete*	*2020*
	- Conduites CRF – Tr4	*Concrete*	*2020*

EDF - DAMPIERRE EN BURLY (45)

- Fosse de rétention d'acide sulfurique au bâtiment déminé	*Concrete*	*1989*
- Bâche SEK 003BA	*Steel*	*1990*
- Fosses de neutralisation SDX 11BA - SDX 12BA au bâtiment déminé	*Concrete*	*1994*
- Bâche TEG	*Steel*	*1995*
- Bâche KER 005BA	*Steel*	*1995*
- Sol des locaux RCV - Tr 3	*Concrete*	*1996*
- Rétentions PTR - Tr 1, 2, 3 et 4	*Concrete*	*1997*
- Décanteur à boues 04BA	*Concrete*	*2000*
- Rétentions Javel - STE – Tr 1/2/3	*Concrete*	*2000*
- Bâche KER 007BA	*Steel*	*2001*
- Locaux batteries - Tr 2	*Concrete*	*2001*
- Bâches KER 001BA - 002BA - 003BA	*Steel*	*2002*
- Aéroréfrigérant Tr 3 – intérieur, et extérieur partiel	*Concrete*	*2003*
- Locaux batteries - Tr 1	*Concrete*	*2003*
- Caniveaux BK - Tr 1/2	*Concrete*	*2004*
- Locaux batteries - Tr 2	*Concrete*	*2004*
- Caniveaux BK - Tr 3/4	*Concrete*	*2005*
- Locaux batteries - Tr 3/4	*Concrete*	*2005*
- Bâche TER 02BA	*Steel*	*2005*
- Caniveaux RPE des BAN 8 et 9	*Concrete*	*2006*
- Puisards RIS EAS - Tr 1	*Concrete*	*2006*
- Ballon 04 SAT 001BA	*Steel*	*2006*
- Bâche SEK KER 002 BA – Tr 2	*Steel*	*2006*
- Aéroréfrigérant Tr 3 – complément extérieur	*Concrete*	*2007*
- Bâche KER 006BA	*Steel*	*2008*
- Aire de dépotage du bâtiment déminé	*Concrete*	*2008*
- Aéroréfrigérant Tr 4 – extérieur	*Concrete*	*2008*
- Bâche TEG 207BA - Tr 9	*Concrete*	*2009*
- Aire de dépotage soude/Javel, bâtiment déminé - Tr 1	*Concrete*	*2011*
- Rétention zone D1 82, bâtiment BAC - Tr 0	*Concrete*	*2011*
- Bâche OSDA, bâtiment déminé - Tr 1	*Concrete*	*2011-12*

Nuclear Power Plants France (next)

EDF - DAMPIERRE EN BURLY (next)

- Rétention PTR - Tr 1	*Concrete*	*2012*
- Bâches PTR, pieds de charpente - Tr 1 et 4	*Concrete*	*2013*
- Rétention soude - Bâtiment BK – Tr 3	*Concrete*	*2013*
- Bâche eau brute OSDC 001DZ – Tr 0	*Concrete*	*2014*
- Bâche 8 REA 001BA – Tr 2	*Steel*	*2014*
- Locaux batterie – Tr 4	*Concrete*	*2014*
- Rétention fioul	*Concrete*	*2014*
- Bâche laverie – Tr 0 + tampon – Tr 9	*Steel*	*2014*
- Bâche SDB - Tr 0	*Concrete*	*2014*
- Bâche REA – Tr 2	*Steel*	*2015*
- BAN – fosses TEP REA – Tr 0 et 9	*Concrete*	*2015*
- Bâche TER 002 BA – Tr 0	*Steel*	*2015*
- Fosses CEX – Tr 4	*Concrete*	*2016*
- Rétention bâches SEK KER – Tr 0	*Concrete*	*2016*
- Locaux batteries BL/BW	*Concrete*	*2016*
- Sols CEX – Tr4	*Concrete*	*2016*
- Bâche KER – Tr0	*Steel*	*2017*
Bâtiment DUS	*Concrete*	*2018*
- Fosse CEX – Tr4	*Concrete*	*2018*
- Bâche 8TEG206BA – Tr8	*Steel*	*2019*
- Rétention SEK KER TER	*Concrete*	*2019*
- CTE – Rétention ammoniaque et javel	*Concrete*	*2019*
- Puisard PTR – Tr1	*Concrete*	*2019*

EDF - FESSENHEIM (68)

- Fosse TEU 17 BA	*Concrete*	*1989*
- Caniveau de résines pour enfûtage - Réfrigération Intermédiaire - BR	*Concrete*	*1989*
- Fosse TEU 13 BA	*Concrete*	*1989*
- Galerie d'amenée G10 des eaux de pompage du Rhin - Tr 1	*Concrete*	*1990*
- Fosse TEU 14 BA	*Concrete*	*1990*
- Galerie d'amenée G3 des eaux de pompage du Rhin - Tr 2	*Concrete*	*1990*
- Bâche TEG 04 BA	*Steel*	*1991*
- Galerie d'amenée G4 des eaux de pompage du Rhin - Tr 1	*Concrete*	*1991*
- Bacs A et B : Stockage de la solution de nettoyage des GV	*Steel*	*1992*
- Rétention des bacs GV A et B	*Concrete*	*1992*
- Rétention LHG voie A et B - Tr 1 et 2	*Concrete*	*1992*
- Bâche TAG	*Steel*	*1993*
- Bâche TEU 11BA	*Steel*	*1993*
- Rétention VTN - GGR - GFR - Tr 1	*Concrete*	*1994*
- Bâche TEU n°2	*Steel*	*1994*
- Fosses de rétention VTN - GGR - GFR - Tr 2	*Concrete*	*1995*
- Sols au bâtiment réacteur - Tr 2	*Concrete*	*1995*
- Caniveaux aux locaux électriques	*Concrete*	*1996*
- Sol de rétention des locaux électriques - Tr 1	*Concrete*	*1997-1998*
- Caniveaux et galeries « borgnes » BAN – Tr 1 et 2	*Concrete*	*1998*
- Bâche TEU 017BA	*Concrete*	*1999*
- Puisards SXS	*Concrete*	*1999*
- Puisards RIS EAS – Tr 1 et 2	*Concrete*	*1999*
- Galeries G1 G2 G7 G12 G13	*Concrete*	*2000*

Nuclear Power Plants France (next)

EDF - FESSENHEIM (next)

- *Caniveaux au bâtiment réacteur*	*Concrete*	*2001-2002*
- *Rétention fuel OLHG 001BA et OLHG 002BA*	*Concrete*	*2001*
- *Rétention TGV – Tr 0*	*Concrete*	*2012*
- *Sol SDM – Tr 1 et 2*	*Concrete*	*2013*
- *Rétention bâche acide – Tr commune*	*Concrete*	*2013*
- *Bâche PTR – Tr 1*	*Concrete*	*2013*
- *Bâche TEU – Tr 1*	*Concrete*	*2013*
- *Puisard SXS – Tr 1*	*Concrete*	*2013*
- *Rétention HCL au bâtiment déminé*	*Concrete*	*2013*
- *Ballon TEU 5BA – Tr 2*	*Steel*	*2013*
- *Galeries G1 G2 G12 G13 – Tr 1 et 2*	*Concrete*	*2014*
- *Bâche 2PTR01BA – Tr 2*	*Concrete*	*2014*
- *Réparation fosse TGV – Tr 0*	*Concrete*	*2014*
- *Rétention bâche PTR – Tr 2*	*Concrete*	*2014*
- *Bâche SXS – Tr 0*	*Steel*	*2015*
- *Bâche 0TEU 020BA*	*Steel*	*2015*
- *Rétention TGV*	*Concrete*	*2015*
- *Bâche 0TEU 17B – Tr 0*	*Steel*	*2015*
- *Bâche TGV – Tr 0*	*Concrete*	*2015*
- *Fosse condenseur – Tr 1*	*Concrete*	*2016*
- *Caniveaux SDM – Tr 1 et 2*	*Concrete*	*2016*
- *BES (bâtiment déchets) – Tr0*	*Concrete*	*2016*
- *Fosse EAC – ISBP*	*Concrete*	*2017*
- *Puisard ISBP EAS*	*Concrete*	*2017*
- *Fosses condenseurs – SDM 1*	*Concrete*	*2018*
- *Bâtiment DUS*	*Concrete*	*2018*
- *Rétentions ultimes et intermédiaires*	*Concrete*	*2018*
- *Bâche TEU017*	*Concrete*	*2018*
- *COREST*	*Concrete*	*2019*
- *Fosse neutralisation 0 SSD 005 BA*	*Concrete*	*2020*

EDF - FLAMANVILLE (50)

- *Fosses KER 01/02/03 et TER 012/013*	*Concrete*	*1986*
- *Fosses SEK 101 et 102*	*Concrete*	*1987*
- *Fosse TER 504*	*Concrete*	*1988*
- *Aire de stockage des produits chimiques*	*Concrete*	*1990*
- *Fosse de rétention d'acide chlorhydrique à la station de pompage*	*Concrete*	*1993*
- *Boîte à eau de condenseur*	*Steel*	*1995*
- *Fosse de rétention CTE d'acide chlorhydrique 33 % - Tr 1*	*Concrete*	*1995*
- *Fosse de neutralisation au bâtiment déminé*	*Concrete*	*1997*
- *Puisards RIS EAS - Tr 1*	*Concrete*	*1997*
- *Fosses de rétention des stockages bases/acides au bâtiment déminé*	*Concrete*	*1998*
- *Bâtiment réacteur : complément d'étanchéité de la peau interne (système **MAEVA**) : Tr 1*	*Concrete*	*1998*
Tr 2	*Concrete*	*1999*
- *Bâche SDA 141 BA*	*Concrete*	*1999*

Nuclear Power Plants France (next)

EDF - FLAMANVILLE (next)

- Puisards RIS EAS – Tr 2	*Concrete*	*2001*
- Sol de la galerie mécanique – Tr 1/2	*Concrete*	*2004-2005*
- 10 batardeaux SDP Tr 1/2	*Concrete*	*2007*
- Fosses de rétentions des locaux batteries	*Concrete*	*2007*
*- Bâtiment réacteur : complément d'étanchéité de la peau interne (système **MAEVA**) : Tr 1*	*Concrete*	*2007*
*- Bâtiment réacteur – complément d'étanchéité de la peau interne (système **MAEVA**) : Tr 1*	*Concrete*	*2008*
- Sol zone SdM	*Concrete*	*2010*
- Fosses KER 004 BA – 005BA – 006BA	*Concrete*	*2012*
- Bâche à air 2 SAP 080DS	*Steel*	*2013*
- Rétention au bâtiment déminé - Tr 0	*Concrete*	*2013*
- Rétention SIR - SdM – Tr 1 et 2	*Concrete*	*2014*
- Rétention SIR – SdM – Tr 0	*Concrete*	*2014*
*- Intrados BR (système **MAEVA**) – Tr 1*	*Concrete*	*2015*
- Puisard SIR SdM – niv. -4 – Tr 2	*Concrete*	*2015*
- Rétention soude – Tr 2	*Concrete*	*2015*
- Rétention soude – Tr 1	*Concrete*	*2016*
- Pontage fissures PBMP – Tr 1 et 2	*Concrete*	*2016*
- Rétention bâche à fioul diesel LHQ – Tr2	*Concrete*	*2016*
- Rétention bâches acide + fioul – Tr 0,1 et 2	*Concrete*	*2016*
- Rétention bâche à fioul LHP diesel – Tr2	*Concrete*	*2016*
- Rétention bâche à fioul – Tr2	*Concrete*	*2017*
- Rétention solvant aire TFA – Tr0	*Concrete*	*2017*
- Rétention à huile – Aire TFA – Tr0	*Concrete*	*2017*
- Fosse SEH – TR1	*Concrete*	*2017*
- Rétention bâche à fuel diesel LHP / LHQ – TR1	*Concrete*	*2017*
*- **EPR 3**: Contrat Revêtements Spéciaux « PL. »*	*Concrete/Métal*	*depuis 2010*
- Cheminée DWN au bâtiment BK	*Steel*	*2015*
- Dôme HR	*Concrete*	*2016*
- Fosses JAC – Bâtiment HC station pompage	*Concrete*	*2016*
- Bâtiment DUS	*Concrete*	*2017*
HCB 0G04 / 0G05 / 0G02 ZL	*Concrete*	*2018*
- CCL – HFA 0C02ZL – HCB 0G02ZL	*Concrete*	*2018*
- Fosse SEK – TR1	*Concrete*	*2018*
- Bâche 1 JPT 011 BA – TR1	*Steel*	*2018*
- Chantier CCL – Local GES	*Concrete*	*2018*
- Bâtiment DUS – Tr1/2	*Concrete*	*2018*
- EPR – Fosse HCB OG02 ZL	*Concrete*	*2018*
- Galerie du HM 16m	*Concrete*	*2019*
- FOSSE APA 1 du HM -5m – 2 AIRES DEPOTAGE (HX & HM) - EPR	*Concrete*	*2019*
- Bât HM niveau -5 HME 0501/HMC0501 ZL - EPR	*Concrete*	*2019*
- Chantier CCL Local MLC Niveau R-1	*Concrete*	*2019*
- Bâche 2JPT021BA – Fla 1/2	*Steel*	*2019*
- Salle des machines – fosse JAC - EPR	*Concrete*	*2019*
- Fosse 2 SEH – EPR	*Concrete*	*2019*

Nuclear Power Plants France (next)

EDF - FLAMANVILLE (next)

- Local Bore Tr0	*Concrete*	*2020*
- Fosse 2 SEH/V	*Concrete*	*2020*

EDF - GOLFECH (82)

- Puisards RIS EAS - Tr 1	*Concrete*	*1985*
- Bâche à soude au bâtiment déminé	*Steel*	*1985*
- Fosses de neutralisation et fosses de rétention au bâtiment déminé	*Concrete*	*1986*
- Bâche ASG - Tr 1	*Steel*	*1989*
- Bâche ASG - Tr 2	*Steel*	*1990*
- Plaques et boîtes à eau de condenseurs - Tr 1	*Steel*	*1992*
- Puisards RIS EAS - Tr 2	*Concrete*	*1995*
- Tuyauteries CRF BONNA - Tr 2	*Concrete*	*2000*
- Locaux batteries	*Concrete*	*2002-2003*
- Sols des galeries BTE	*Concrete*	*2003*
*- Bâtiment réacteur : complément d'étanchéité de la peau interne (système **MAEVA**) : Tr 2*	*Concrete*	*2006*
- Puisards RIS EAS - Tr 0	*Concrete*	*2007*
*- Bâtiment réacteur : complément d'étanchéité de la peau interne (système **MAEVA**) : Tr 1*	*Concrete*	*2008*
*- Bâtiment réacteur : complément d'étanchéité de la peau interne (système **MAEVA**) : Tr 2*	*Concrete*	*2010*
- Fosses de rétention au bâtiment déminé – Tr 0	*Concrete*	*2010*
- Bâches CTE – Tr 1 et 2	*Concrete*	*2012*
- Rétention CTE – Tr 1	*Concrete*	*2013*
- Rétentions CTE – Tr 1 et 2	*Concrete*	*2014*
- Fosse SEH Salle des Machines et BAN – Tr 2	*Concrete*	*2014*
- Petits caniveaux BAN – Tr 2	*Concrete*	*2014*
- Voile Local Karcher – Tr 0	*Concrete*	*2014*
- Caisse à huile Socatri – Tr 1	*Concrete*	*2014*
- Cunettes BAN et BAS niveau -4.5m – Tr 1	*Concrete*	*2014*
- Rétention 0SDP500BA et 501BA – Tr 0	*Concrete*	*2014*
- Extérieur bâche métallique SKH – Tr 0	*Steel*	*2015*
- Fond de corps de pompe 5Z579	*Steel*	*2015*
- Cunette locaux BAN – Tr 1 et 2	*Concrete*	*2015*
- Rétentions soude – Tr 0 à 2	*Concrete*	*2015*
- Puisards – Socatri – Toutes Tr	*Concrete*	*2016*
- Bâche 0 TER 011 BA – Tr 0	*Steel*	*2016*
- Bâtiment DUS	*Concrete*	*2017*
- Puisard DT350 – Tr1 et 2	*Steel/Concrete*	*2017*
- Bâche 1 SRI	*Steel*	*2017*
- Bâches JPD et SRI	*Steel*	*2017*
- Bâche galva JPT	*Steel*	*2017*
- Bâche JPD SDM – Tr1	*Steel*	*2017*
- Local Bore	*Concrete*	*2019*
- Bâtiment DUS - Tr 2	*Concrete*	*2019*
*- Intrados – (système **MAEVA**)*	*Concrete*	*2019*
- Bâche KER 12BA	*Steel*	*2019*

Nuclear Power Plants France (next)

EDF - GOLFECH (next)

- Intrados BR - Maeva	*Concrete*	*2020*
- Puisard 0HQC0531PS	*Concrete*	*2020*
- Réfection des points bas - SDM	*Concrete*	*2020*
- DUS	*Concrete*	*2020*
- Rétention CTE – Tr1	*Concrete*	*2020*

EDF - GRAVELINES (59)

- Bâches KER 01, 02, 07 BA - Tr 1/2	*Steel*	*1988*
- Bâche KER 03 BA - Tr 1/2	*Steel*	*1988*
- Bâche TEG 03 BA - Tr 1/2	*Steel*	*1988*
- Bâches SEK - Tr 3/4	*Steel*	*1989*
- Fosses de neutralisation au bâtiment déminé	*Concrete*	*1989*
- Filtres à sable	*Steel*	*1989*
- Bac de soude 48 % au bâtiment déminé	*Steel*	*1989*
- Bâches TER 01 et 02 BA	*Steel*	*1990*
- Extérieur de tuyauteries de gaz	*Steel*	*1990*
- Fosses de rétention 001 et 002 BA	*Concrete*	*1990*
- Bâche KER 06 BA - Tr 1/2	*Steel*	*1990*
- Décanteur - eau de Javel 47°, chlorure ferrique et chaux éteinte	*Steel*	*1991*
- Bâches KER 011 BA, O12 BA, 013 BA - Tr 5/6	*Steel*	*1991*
- Bâches SEK 001 BA et 002 BA - Tr 3/4	*Steel*	*1991*
- Bâches TER 10, 11, 12 - Tr 5/6	*Steel*	*1992*
- Bâche SER 03 BA - Tr 1/2	*Steel*	*1993*
- Bâches SEK 01 BA, 02 BA - Tr 5/6	*Steel*	*1993*
- Bâches TEG 02/03/04/07 - Tr 1/2	*Steel*	*1994*
- Bâche SDP N°111 BA - Tr 5/6	*Steel*	*1994*
- Bâches SER N°001 BA et 002 BA - Tr 1/2	*Steel*	*1994*
- Sol de la laverie à l'atelier de décontamination - Tr 1/2	*Concrete*	*1994*
- Fosse de rétention KER - Tr 3/4	*Concrete*	*1995*
- Bâche TPI - Eau incendie	*Steel*	*1995-1996*
- Fosse de rétention CTE - Tr 3/4	*Concrete*	*1996*
- Fosses de rétention TEP et REA - Tr 1/2	*Concrete*	*1996*
- Berceaux des cuves à fuel - Tr 1 à 6	*Steel*	*1998*
- Fosse de neutralisation au bâtiment déminéralisation	*Concrete*	*1999*
- Fosse de rétention acide sulfurique 98%	*Concrete*	*1999*
- Fosse de rétention au bâtiment déminé	*Concrete*	*1999*
- Plaques à tubes de condenseurs	*Steel*	*1999*
- Locaux batteries	*Concrete*	*2001*
- Bâches PTR	*Steel*	*2002*
- Fosses de rétention de bâches PTR - Tr 1/2/3/4/5/6	*Concrete*	*2003-2004*
- Caniveaux et puisards du BAN - Tr 1à 6	*Concrete*	*2006*
- Bâche filtre à sable au bâtiment déminé	*Concrete*	*2007*
- Puisards RIS-EAS Tr 6	*Concrete*	*2007*
- Rétentions des locaux déminé	*Concrete*	*2007*
- Locaux batteries	*Concrete*	*2007*
- Caniveaux DVL Tr 1/2/3/4/5/6	*Concrete*	*2007*
- Sol de rétention du bâtiment déminé	*Concrete*	*2010*
- Murs et sol de la SDM niveau -3,40 - Tr 1/2	*Concrete*	*2010*

Nuclear Power Plants France (next)

EDF - GRAVELINES (next)

- Sol laverie – Tr 1/2	*Concrete*	*2011*
- Bâche KER 001BA à 003BA	*Concrete*	*2011*
- Bâches KER TER 002BA	*Concrete*	*2011*
- Fosse SDX 021BA, déminée – Tr 0	*Concrete*	*2011*
- Caniveaux – local huilerie zone HA.202	*Concrete*	*2011-12*
- Rétention en station de pompage - Tr 3/4	*Concrete*	*2012*
- Sol bâche à huile - Tr 2 et 6	*Concrete*	*2012*
- Rétention bâches KER - Tr 0 à 6	*Concrete*	*2012*
- Rétention bâche 5 EAS 001 BA - BK - Tr 5	*Concrete*	*2012*
- Fosse TCA - SDM niveau -3.5 - Tr 2	*Concrete*	*2012*
- Bâche KER - Tr 3/4	*Concrete*	*2012*
- Sol dans SDM niveau 3.5m - Tr 4	*Concrete*	*2012*
- Station de pompage - Tr 1	*Concrete*	*2012*
- Caniveaux KER - Tr 3/4	*Concrete*	*2012*
- Local SIR et charge magasin général - Tr 7 à 9	*Concrete*	*2013*
- Rétentions PTR - Tr 1 à 6	*Concrete*	*2013*
- Rétentions KER - Tr 7 à 9	*Concrete*	*2013*
- Rétention PTR - Tr 5	*Concrete*	*2013*
- Bâches EAS - Tr 1 à 6	*Concrete*	*2013*
- Rétention sous-sol laverie	*Concrete*	*2013*
- Bâche SEK 01BA	*Steel*	*2013*
- Sol CEX à la SDM - Tr 1	*Concrete*	*2014*
- Bâches TER 013BA & KER 011BA	*Steel*	*2014*
- Sol et voiles à la SDM – Tr 1	*Concrete*	*2014*
- Rétentions 011 et 013 acide et soude – Tr 0	*Concrete*	*2014*
- Caniveaux KER – Tr 0	*Concrete*	*2014*
- Caniveaux KER et local P209 – Tr 4 à 6	*Concrete*	*2014*
- Bâches TER 013BA & KER 011BA – Tr 0	*Steel*	*2014*
- Bâche O SEK001 BA	*Steel*	*2014*
- Hall BK6 rétention caniveaux KER – T r0	*Concrete*	*2014*
- Bâche KER 012 BA – Tr 6	*Steel*	*2014*
- Caniveau KER – Tr 0	*Concrete*	*2014*
- Station pompage 01 à 04 PO Sol pompe SEC – Tr 6	*Concrete*	*2014*
- Rétention chaîne de traitement + puisard dans diesel – Tr 0	*Concrete*	*2014*
- Local pomperie KER – Tr 7	*Concrete*	*2014*
- Bâche 0 SEK002BA – Tr 0	*Steel*	*2014*
- Rétention de la bâche Javel 0 SDP 032 BA	*Concrete*	*2014*
- Bâche KER007BA – Tr 7	*Steel*	*2014*
- Rétention CTE 006 et 011 BA – Tr 1 à 6	*Concrete*	*2015*
- Batardeau station de pompage	*Steel*	*2015*
- Rétention bâches KER/TER/SEK – Tr 0	*Concrete*	*2015*
- Rétention fond BK 010 à 013 – Tr 1	*Concrete*	*2015*
- Puisard RIS/EAS – Tr 4	*Concrete*	*2015*
- Rétention fond BK – Tr 1 et 2	*Concrete*	*2015*
- Aire de dépotage – Tr 0	*Concrete*	*2015*
- Bâche KER 012 BA	*Steel*	*2015*
- Aire de dépotage CTE – toutes Tr	*Concrete*	*2015*

Nuclear Power Plants France (next)

EDF - GRAVELINES (next)

- Fosse Blayais – Tr 4	*Concrete*	*2015*
- Bâches 0 SEK 011BA + KER 003 et 005 BA – Tr 0	*Steel*	*2015*
- Bâches 0 KER 003 BA et 0 KER 005 BA – Tr 0	*Steel*	*2016*
- Locaux CTE – toutes Tr	*Concrete*	*2016*
- Rétention des chaînes de traitement d'eau déminéralisée	*Concrete*	*2016*
- Bâche TER 012 BA – Tr 0	*Steel*	*2016*
- Rétention DEL – Tr 2	*Concrete*	*2016*
- Bâche TER 002 et 001 BA – Tr 0	*Steel*	*2016*
- Bâche 0 SEK 012 BA – Tr 0	*Steel*	*2016*
- Bâches 0 SER 003 BA + KER 11 – Tr 0	*Steel*	*2016*
- Rétentions TEP et REA – Tr8	*Concrete*	*2016*
- Sous-sol laverie – Tr 0	*Concrete*	*2016*
- Bâche KER 011 BA – Tr 0	*Steel*	*2016*
- Fosses CEX – toutes Tr	*Concrete*	*2017*
- Bâches 0 KER 001 et 002 BA – Tr0	*Steel*	*2017*
- Bâche 0 KER 006 BA – Tr0	*Steel*	*2017*
- Aires de dépotage et retentions – CTE – toutes Tr	*Concrete*	*2018*
- Fosse et caniveaux – BAC bât des déchets	*Concrete*	*2018*
- Puisard LHQ	*Concrete*	*2018*
- Rétention 1 LHP 070 BA	*Concrete*	*2018*
- Bâtiment DUS	*Concrete*	*2018*
- Pompe sec – Tr 3/4/5/6	*Concrete*	*2018*
- Fosse SDX	*Concrete*	*2018*
- Rétentions KER centre et KER Ouest	*Concrete*	*2019*
- Sol des pompes -13.5m – Tr1 à 6	*Concrete*	*2019*
- Bâche OSEK002BA	*Steel*	*2019*
- Bâtiment DUS	*Concrete*	*2019*
- Chantier TEP – Tr9	*Concrete*	*2019*
- Caniveau BSI	*Concrete*	*2019*
- Rétentions KER centre et ouest	*Concrete*	*2019*
- Local Batterie – Tr6	*Concrete*	*2020*
- BEGV – Tr6	*Concrete*	*2020*
- Rétention CTE	*Concrete*	*2020*
- Chantier TEP – Tr7	*Concrete*	*2020*
- Locaux batteries Tr7 8L311	*Concrete*	*2020*
- Casemates PTR TR1/6	*Concrete*	*2020*
- Caniveaux Mercure	*Concrete*	*2020*
- Local CEX sol	*Concrete*	*2020*
- Rétention PTR	*Concrete*	*2020*
- Box chimique	*Concrete*	*2020*
- Fosse CEX – Tr2	*Concrete*	*2020*

Nuclear Power Plants France (next)

EDF - NOGENT S/SEINE (10)

- *Aire de dépotage au bâtiment déminé et caniveaux correspondants*	*Concrete*	*1987*
- *Bâtiment d'appoint : fosse de rétention du stockage acides, local de vaccination, fosse de dépotage*	*Concrete*	*1987*
- *Sols épais décontaminables*	*Concrete*	*1988*
- *Fosse de neutralisation N° 05 DP 711 BA du bâtiment déminé*	*Concrete*	*1991*
- *Caniveaux au bâtiment réacteur - Tr 1 et 2*	*Concrete*	*1992*
- *Bâche TEG - Tr 2*	*Steel*	*1992*
- *Fosse de rétention des caisses à huile - Tr 3/4*	*Concrete*	*1993*
- *Fosse de rétention EAS - Tr 1*	*Concrete*	*1993*
- *Fosse de rétention EAS - Tr 2*	*Concrete*	*1993*
- *Sol au bâtiment BTE - Salle de compactage*	*Concrete*	*1993*
- *Fosse de rétention d'une caisse à huile - Tr 2*	*Concrete*	*1993*
- *Bâche TER 011 BA*	*Steel*	*1994*
- *Bâche TER 012 BA*	*Steel*	*1995*
- *Bâche TER 013 BA*	*Steel*	*1995*
- *Sols du labo chaud et des locaux batteries - Tr 1*	*Concrete*	*1995*
- *Sols aux locaux batteries - Tr 2*	*Concrete*	*1996*
- *Fosse de rétention - Huile GHE - Tr 2*	*Concrete*	*1996*
- *Fosse de rétention 02 EAS - Tr 2*	*Concrete*	*1996*
- *Bâche à soude 012 BA - Tr 2*	*Concrete*	*1996*
- *Regards BONNA*	*Concrete*	*1997*
- *Puisards RIS EAS - Tr 1*	*Concrete*	*1998*
- *Boîtes à eau de condenseurs - Tr 2*	*Steel*	*1998*
- *Fosse de rétention réactifs - Tr 2*	*Concrete*	*1999*
- *Boîtes à eau de condenseurs - Tr 1*	*Steel*	*1999*
- *Fosses de rétention hydrate d'hydrazine et Ferrolin 6233*	*Concrete*	*2003*
- *Aire de dépotage des réactifs du bâtiment déminé*	*Concrete*	*2004*
- *Fosse de neutralisation au bâtiment déminé*	*Concrete*	*2004*
- *Locaux batteries – Tr 2*	*Concrete*	*2006*
- *Locaux Diesel D A.401.402.403.404 - Tr 1*	*Concrete*	*2007*
- *Locaux Diesel D B.401.402.403.404 - Tr 2*	*Concrete*	*2007*
- *Bâtiment réacteur : complément d'étanchéité de la peau interne (système **MAEVA**) : Tr 1*	*Concrete*	*2009*
- *Réservoirs compresseurs - Tr 1 et 2*	*Steel*	*2010*
- *Sol du labo Chimie - BAN - Tr 1*	*Concrete*	*2010*
- *Puisards RIS EAS - Tr 1*	*Concrete*	*2010*
- *Caniveau RPE - BAN 5.40 - Tr 2*	*Concrete*	*2011*
- *Sol chaîne production eau, bâtiment déminéralisation – Tr 0*	*Concrete*	*2011*
- *Caniveaux BTE - Tr 1*	*Concrete*	*2011*
- *Caniveau RPE, BAN - Tr 2*	*Concrete*	*2012*
- *Sol du bâtiment Diesel DA 405- Tr 1 voie A*	*Concrete*	*2012*

Nuclear Power Plants France (next)

EDF - NOGENT S/SEINE (next)

- *Sol laboratoire « chaud » - Tr 2*	*Concrete*	*2013*
- *Rétention bâche à soude – Tr 2*	*Concrete*	*2014*
- *Sol du local TES – Tr 0*	*Concrete*	*2014*
- *Rétentions Diesel Tr 1 : DA405 + DB405, Tr 2 : DB405*	*Concrete*	*2014*
- *Local BTE bâche TES – Tr 0*	*Concrete*	*2014*
- *Rétentions Diesel Tr 1 et 2*	*Concrete*	*2015*
- *Sol local batterie 1 NIS*	*Concrete*	*2016*
- *Local batterie – Tr2*	*Concrete*	*2017*
- *Bâtiment DUS*	*Concrete*	*2017*
- *Caniveaux déminée*	*Concrete*	*2018*
- *Bâtiment DUS*	*Concrete*	*2019*
- *Intrados – (système MAEVA)*	*Concrete*	*2019*
- *Aire de dépotage ATO – Tr1*	*Concrete*	*2019*
- *Citernes Allaman*	*Steel*	*2020*

EDF - PALUEL (76)

- *Bâches SEK 01 et 02*	*Concrete*	*1987*
- *Bâches ASG - Tr 1 et 2*	*Steel*	*1988*
- *Bâches KER, TER, SEK (next)*	*Concrete*	*1989*
- *Bâches KER, TER, SEK (next)*	*Concrete*	*1990*
- *Bac de stockage de la solution de nettoyage des GV*	*Steel*	*1991*
- *Bâche TEG 302 BA*	*Steel*	*1993*
- *Tuyauteries CFI à la station de pompage*	*Steel*	*1994*
- *Bâche TEG n°4 303 BA*	*Steel*	*1994*
- *Bâche SER 002*	*Steel*	*1994*
- *Châssis de pompe à la station de pompage*	*Steel*	*1995*
- *Fosse EAS - soude*	*Concrete*	*1995*
- *Bâches KER 04 BA, 05 BA, 06 BA*	*Concrete*	*1995-1996*
- *Puisards RIS EAS - Tr 1*	*Concrete*	*1996*
- *Tuyauteries CFI - Tr 1/2/3 et massifs à la station de pompage*	*Steel*	*1996-1997*
- *Bâche SER 001*	*Steel*	*1997*
- *Puisards RIS EAS - Tr 3*	*Concrete*	*1997*
- *Puisards RIS EAS - Tr 2 et 4*	*Concrete*	*1998*
- *Rétention d'acide chlorhydrique et de soude au bâtiment déminé*	*Concrete*	*2000*
- *Aire de dépotage, caniveaux de liaison au bâtiment déminé*	*Concrete*	*2001*
- *Rétention soude 48 %, chlorure ferrique 41 %, acide sulfurique 98% au bâtiment déminé*	*Concrete*	*2001*
- *Locaux batteries - Tr 1*	*Concrete*	*2005*
- *Bâtiment réacteur : complément d'étanchéité de la peau interne (système MAEVA) : Tr 2*	*Concrete*	*2005*
Tr 1	*Concrete*	*2006*
Tr 3	*Concrete*	*2007*
- *Rétention des bâches TEP Tr 1/2/3/4*	*Concrete*	*2007*
- *Bâtiment réacteur : complément d'étanchéité de la peau interne (système MAEVA) : Tr 4*	*Concrete*	*2008*
- *Compensateur à ondes - Tr 1*	*Concrete*	*2008*

Nuclear Power Plants France (next)

EDF - PALUEL (next)

- Zone SOCATRI, BAN - Tr 4	*Concrete*	*2011*
- Rétention, zone SOCATRI, bâtiments BAN/BL - Tr 2	*Concrete*	*2011*
- Sol de rétention NC0613 et NB0582 - Tr 4	*Concrete*	*2012*
- Echangeur à plaque RRI 52 RF et SRI 51RF - Tr 3	*Steel*	*2012*
- Rétention AGR - Tr 1	*Concrete*	*2012*
- Rétentions NB0552, NC0619, NC0613 du bâtiment déminé	*Concrete*	*2012*
- Bâches à fioul 600 et 601 BA	*Steel*	*2013*
- Sols locaux batteries – Tr 2 et Tr 3	*Concrete*	*2013*
- Bâche AGR – robe extérieure – Tr 3	*Steel*	*2014*
- Puisards RPE	*Concrete*	*2014*
- Bâche SEP 0SEP001BA – Tr 1	*Concrete*	*2014*
- Caniveaux BR – Tr 3	*Concrete*	*2015*
- Bâche diesel – Tr 3	*Steel*	*2015*
- Déminé – rétention acide – Tr 0	*Concrete*	*2015*
- Sol locaux batteries – Tr 4	*Concrete*	*2015*
- Tuyauteries CRF BONNA – Tr 2	*Concrete*	*2015*
- Rétention bâches diesel 600-601 BA – Tr 2	*Concrete*	*2015*
- Puisards RPE – Tr 3	*Concrete*	*2015*
- Brides CRF – Tr 2	*Steel*	*2016*
- Caniveaux Diesel LHQ – Tr 2	*Concrete*	*2016*
- Passerelle SDP – Tr 2	*Steel*	*2016*
- Sous-sol – niveau -4 BAN – Tr2	*Concrete*	*2016*
- Bâche déminée – Tr0	*Steel*	*2017*
- Bâche 0 SDA 751 BA – Tr0	*Steel*	*2017*
- Bâche 0 SDA 752 BA – Tr0	*Steel*	*2018*
- Puisard 4 RPE 431 BA – Tr4	*Concrete*	*2018*
- Bâche O KER 004BA	*Concrete*	*2018*
- Bâche 0SDA752BA – Tr0	*Concrete*	*2018*
- Puisard 4 RPE 431 BA – Tr4	*Concrete*	*2018*
- Bâtiment DUS TR3	*Concrete*	*2018*
- Bâtiment DUS Tr4	*Concrete*	*2018-*
- TR2 – Fosse SEH	*Concrete*	*2018*
- Chantier DUS – TR2	*Concrete*	*2018*
- Bâche 0 KER 005 BA	*Concrete*	*2019*
- Chantier DUS – TR2	*Concrete*	*2019*
- Salle des machines – massifs des pompes – TR4	*Concrete*	*2019*
- Chantier DUS – TR4	*Concrete*	*2019*
- Puisard 3 RPE 322 BA – Tr3	*Concrete*	*2019*
- Local Batterie DUS – Tr3	*Concrete*	*2019*
- Locaux Batterie DUS – Tr1/2	*Concrete*	*2020*
- Fosses et puisards SEH et SEK	*Concrete*	*2020*
- Bâche O KER 006BA	*Concrete*	*2020*

Nuclear Power Plants France (next)

EDF - PENLY (76)

- Bâches A.S.G. (2)	*Steel*	*1986*
- Silo de décarbonatation au bâtiment déminé	*Steel*	*1989*
- Puisards RIS EAS – Tr 1	*Concrete*	*1996*
- Puisards RIS EAS – Tr 2	*Concrete*	*1998*
- Fosses de rétention d'eau de mer à la station de pompage	*Concrete*	*1998*
- Puisard au bâtiment BTE	*Concrete*	*1998*
- Puisards au bâtiment déminé	*Concrete*	*1999*
- Aire de dépotage acide/soude au bâtiment déminé	*Concrete*	*2001*
- Fosse SEX – Tr 1	*Concrete*	*2004*
- Bâches SEK 011 BA – Tr 1 et 2	*Steel*	*2004*
- Caniveaux et puisards du BAN – Tr 1 et 2	*Concrete*	*2006*
- Bâche acide au bâtiment déminé	*Concrete*	*2007*
- Fosses de rétention du local réactifs MB0503 - Tr 1/2	*Concrete*	*2007*
- Bâche filtre à sable au bâtiment déminé	*Concrete*	*2007*
- Bâche SEK 011 DH – Tr 1	*Steel*	*2011*
- Rétention déminée et huilerie extérieure	*Concrete*	*2012*
- Puisard OSDA050BA au bâtiment déminé	*Concrete*	*2012*
- Batardeaux – Tr 1 et 2	*Steel*	*2012*
- Bâche SEK – Tr 2	*Steel*	*2012*
- Dégrilleur – Tr 2	*Concrete*	*2012-13*
- Puisard au local LD0305 et LD0306 – Tr 2	*Concrete*	*2013*
- Sols des couloirs du BAN – Tr 2	*Concrete*	*2013*
- Galerie RPE BW1 – Tr 1	*Concrete*	*2013*
- Puisards RIS-EAS – Tr 2	*Concrete*	*2014*
- Plaques échangeurs RRI condenseurs SEC – Tr 2	*Steel*	*2014*
- Rétentions et aires de dépotage au bâtiment CTE – Tr 3/4	*Concrete*	*2014*
- Locaux batteries – Tr 1 et 2	*Concrete*	*2015*
- Bâche 0 SEK 012 BA – Tr0	*Steel*	*2017*
- Local SDM – TR1 et 2	*Concrete*	*2017*
- Bâtiment DUS	*Concrete*	*2017*
- Cuves NPGV – Allaman	*Steel*	*2017*
- Bâche 0 SDA 510 BA – TR0	*Steel*	*2017*
- Rétention déshuileur – TR0	*Concrete*	*2017*
- TRO – Bâches O SEK 011 BA & O TER 013 BA	*Steel*	*2018*
- FOS SDA 510 BA	*Concrete*	*2018*
- Bâche 0 KER 011 BA	*Steel*	*2020*
- Intrados	*Concrete*	*2020*
- Citernes Allaman	*Steel*	*2020*
- Bâtiment DUS	*Concrete*	*2020*

Nuclear Power Plants France (next)

EDF - SAINT ALBAN (38)

- Fosses de neutralisation au bâtiment déminé	*Concrete*	*1987*
- Bâches TEG (hydrogène, azote césium) - t. 40 à 50°C	*Steel*	*1987*
- Cuves wagons d'huile minérale médium « DTE »	*Steel*	*1988*
- Fosses de rétention d'acide chlorhydrique et de soude au bâtiment déminé	*Concrete*	*1988*
- 6 bâches TEG	*Steel*	*1988*
- Parc de stockage matières premières :		
Fosses de rétention de morpholine, ammoniaque et acide nitrique		
Fosse de rétention d'hydrazine 25 %	*Concrete*	*1988*
- Plancher de la salle des ordinateurs	*Concrete*	*1988*
- Bac de stockage de la solution de nettoyage des GV	*Steel*	*1990*
- Fosse de rétention du bac GV	*Concrete*	*1990*
- Bâche 02 SAP 80 DS	*Steel*	*1994*
- Puisards RIS EAS – Tr 1	*Concrete*	*1996*
- Fosse de rétention d'une bâche à soude - Voie B - Tr 1	*Concrete*	*1997*
- Fosse de rétention PTR 1	*Concrete*	*1997*
- Fosse de rétention PTR 2	*Concrete*	*1998*
- Fosse de rétention Fyrquel	*Concrete*	*2000*
- Puisards RIS EAS – Tr 2	*Concrete*	*2000*
- Bâtiment réacteur : complément d'étanchéité de la peau interne		
*(système **MAEVA**) : Tr 2*	*Concrete*	*2002*
Tr 1	*Concrete*	*2003*
- Fosses de neutralisation 701 et 702 BA au bâtiment déminé	*Concrete*	*2004*
- Bâche 9 SEB 001 BA	*Steel*	*2005*
- Bâche à soude 47 au bâtiment déminé	*Steel*	*2005*
- Bâche PTR - Tr 1	*Concrete*	*2008*
- Bâtiment réacteur : complément d'étanchéité de la peau interne		
*(système **MAEVA**) : Tr 2*	*Concrete*	*2008*
- Caniveaux et puisard BAN & DAS – Tr 1 et 2	*Concrete*	*2010*
- Sol du local des pompes au bâtiment déminé	*Concrete*	*2010*
- Puisards au bâtiment déminé	*Concrete*	*2010*
- Aire de dépotage au bâtiment déminé	*Concrete*	*2012*
- Fosse SEK – Tr 2	*Concrete*	*2013*
- Rétention soude – bâtiment déminé	*Concrete*	*2013*
- Local Karcher	*Concrete*	*2014*
- Aire de dépotage Diesel bâtiment externe – Tr 0	*Concrete*	*2015*
- Rétention PTR – Tr 1	*Concrete*	*2015*
- Puisard et regard BR – Tr 1	*Concrete*	*2015*
- Décanteur hors zone	*Steel*	*2016*
- Bâches JPT 011, 012, 013 et 021 BA	*Steel*	*2016*
- Rétentions SIR – SDM – Tr1	*Concrete*	*2017*
- Bâche 0 SEK 012 BA – Tr0	*Steel*	*2017*
- Bâtiment DUS	*Concrete*	*2017*
- Rétention pôle TP	*Concrete*	*2017*
- Rétentions FeCl3 – NaOH – Morpholine	*Concrete*	*2017*
- Chantier CVI – SdM – Tr2	*Steel*	*2018*
- Caniveaux – niveaux +15m et -4m – SdM – Tr1	*Concrete*	*2018*
- Bâtiment Déminé – Rétention chlorure ferrique	*Concrete*	*2018*

Nuclear Power Plants France (next)

EDF - SAINT ALBAN (next)

- Fosse SEH T1	*Concrete*	*2018*
- Bâche O KER 011 BA	*Steel*	*2018*
- Bâche O TER 013 BA	*Steel*	*2018*
- Extérieur bâtiment déminé – Rétention FERROLIN	*Concrete*	*2018*
- TR2 – Bâtiment DUS – Local batteries rétention PTR	*Concrete*	*2018*
- Bâche TEG	*Steel*	*2018*
- Puisard rétention chaux	*Steel*	*2019*
- Aire de dépotage - réfection de la finition	*Concrete*	*2019*
- Rétention soude déminé	*Concrete*	*2019*
- Aire de dépotage	*Concrete*	*2020*
- Bâtiment DUS	*Concrete*	*2020*

EDF - ST LAURENT DES EAUX A (41)

- Fosse RTE de conditionnement et rejet des effluents - Tr 2	*Concrete*	*1984*
- Fosse de rétention d'acide sulfurique au bâtiment déminé	*Concrete*	*1986*
- Fosse de rétention du stockage des réactifs	*Concrete*	*1988*
- Fosses de rétention G01 et G02	*Concrete*	*1988*
- Fosses de rétention du bâtiment distillats	*Concrete*	*1998*
- Aire de dépotage	*Concrete*	*2015*
- Puisards	*Concrete*	*2019*

EDF - ST LAURENT DES EAUX B (41)

- Fosses de rétention RC/OC et RC/IC	*Concrete*	*1987*
- Fosses TEL	*Concrete*	*1988*
- Bâche TER 09 001 BA	*Steel*	*1990*
- Bâches TER 09 002 BA et 09 003 BA	*Steel*	*1990*
- Fosses de rétention d'acide sulfurique et de soude au bâtiment déminé	*Concrete*	*1990*
- Fosses de neutralisation SDX 11 BA et SDX 12 BA au bâtiment déminé	*Concrete*	*1990*
- Caniveaux à la pomperie au bâtiment déminé – Tr 0	*Concrete*	*1990*
- Fosses de rétention et massifs au bâtiment diesel	*Concrete*	*1991*
- Caniveaux de la chaîne 1 de déminéralisation	*Concrete*	*1992*
- Plaques et boîtes à eau de condenseurs - Tr 2	*Steel*	*1993*
- Fosses de rétention SEK, KER, TER	*Concrete*	*1994*
- Locaux turbopompe TPA - Tr 1/2	*Concrete*	*1994*
- Caisses à huile - Tr 1/2	*Concrete*	*1995*
- Local pompe EAS et caniveaux BK	*Concrete*	*1995*
- Fosse de rétention du local injection des réactifs à la SDM - Tr 1	*Concrete*	*1995*
- Fosse de rétention K014 et K054	*Concrete*	*1995*
- Caniveaux au bâtiment de secours	*Concrete*	*1995*
- Bâche SER 051	*Steel*	*1996*
- Bâche SEK 02BA	*Steel*	*1997*
- Plaques et boîtes à eau de condenseurs A4.B3.C2.D1 - Tr 1	*Steel*	*1998*
- Bâche SER 052 BA - Tr 1	*Steel*	*1998*
- Plaques et boîtes à eau de condenseurs - Tr 2	*Steel*	*1998*
- Décanteur à boues au bâtiment déminé – Tr 0	*Concrete*	*1998*
- Fosses de rétention fuel - Tr 2	*Concrete*	*1998*
- Galerie SEC-SEN : trappe d'aération	*Concrete*	*1998*

Nuclear Power Plants France (next)

EDF - ST LAURENT DES EAUX B (next)

- Bâches SDP 05-06-01 BA	*Concrete*	*1999*
- Puisards RPE	*Concrete*	*1999*
- Bâche KER 07 BA	*Steel*	*2000*
- Galerie GT 14	*Concrete*	*2001*
- Puisards RIS-EAS	*Concrete*	*2001*
- Puisard 9 RPE 001 CU	*Concrete*	*2001*
- Fosses de rétention PTR	*Concrete*	*2001*
- Fosses de rétention TEP 05 et 06 BA - TEP 01 EV	*Concrete*	*2001*
- Fosses de rétention 9 TEU 01 à 04 BA - TEP 02 à 04 BA	*Concrete*	*2001*
- Bâche KER 005 BA	*Concrete*	*2001*
- Bâche OSDB 001 FI	*Concrete*	*2001*
- Pont métallique au bâtiment déminé – Tr 0	*Steel*	*2001*
- Fosse de rétention au bâtiment déminé – Tr 0	*Concrete*	*2001*
- Bâches, regards et caniveaux KER-TER	*Concrete*	*2001*
- Galerie SEK - Voie B - Tr 1 et 2	*Concrete*	*2001*
- Locaux batteries - Tr 1/2	*Concrete*	*2002*
- Fosses de rétention des déshuileurs - Tr 1/2	*Concrete*	*2002*
- Fosses de rétention des bâches PTR - Tr 1/2	*Concrete*	*2003*
- Caniveaux RPE 900 - Tr 9	*Concrete*	*2004*
- Fosse de neutralisation OS DX 013 BA au bâtiment déminé – Tr 0	*Concrete*	*2005*
- Fosse de neutralisation OS DX 012 BA au bâtiment déminé – Tr 0	*Concrete*	*2006*
- Bâche chlorure ferrique au bâtiment déminé – Tr 0	*Concrete*	*2006*
- Caniveaux RPE des BAN Tr 8/9	*Concrete*	*2006*
- Rétentions – Bâtiment monochloramine	*Concrete*	*2007*
- Rétentions GGR – GFR – AGR à la salle des machines Tr 1/2	*Concrete*	*2007*
- Casemates des BK - Tr 1 et 2	*Concrete*	*2010*
- Sols des locaux – BK – Tr 1	*Concrete*	*2010*
- Sols des locaux – BK – Tr 2	*Concrete*	*2010*
- Sols des locaux inférieurs n° SO1 – BK – Tr 1	*Concrete*	*2010*
- Puisards du bâtiment déminé – Tr 0	*Concrete*	*2010*
- Bâche eau gazée, fosse DXOSDA, bâtiment déminé – Tr 0	*Concrete*	*2011*
- Fosse DX, bâtiment déminé – Tr 0	*Concrete*	*2011*
- Bâche RPC – Tr 1	*Steel*	*2011*
- Caniveaux du BAN	*Concrete*	*2012*
- Sol BK -8m – Tr 1	*Concrete*	*2013*
- Bâches SEK – Tr 1	*Steel*	*2013*
- Locaux batteries au BL – Tr 1 et 2	*Concrete*	*2014*
- Rétention KER – Tr 9	*Concrete*	*2014*
- Station de pompage SEC Voie A	*Concrete*	*2014*
- Fosse à ascenseur BK – Tr 1 et 2	*Concrete*	*2015*
- Puisard RPE	*Concrete*	*2015*
- Locaux batteries – Tr 1	*Concrete*	*2015*
- Bâtiment DUS – réservoirs stockage fuel – Tr 1 et 2	*Steel*	*2015*
- Bâches REA TEP 002BA – Tr 9	*Concrete*	*2015*
- Bâtiments DUS – Rétentions fioul – Tr1	*Concrete*	*2016*
- Parc à déchets – Tr 0	*Concrete*	*2016*
- Tubes crépines aéro – Tr 2	*Steel*	*2016*
- Local batterie LAB – SDM – Tr2	*Concrete*	*2016*

Nuclear Power Plants France (next)

EDF - ST LAURENT DES EAUX B (next)

- Bâche 0 KER 006 BA – Tr0	*Steel*	*2017*
- Bâtiment DUS – Tr1	*Concrete*	*2017*
- Rétention DEL – BL – Tr2	*Concrete*	*2017*
- Local de stockage BORE	*Concrete*	*2017*
- Puisards DT 350 9 RPE 04/05 PS – TR9	*Concrete*	*2017*
- Local CTE – TR0	*Concrete*	*2017*
- Rétention diesel – TR1 et 2	*Concrete*	*2017*
- Tubes crépines aéro – Tr 1	*Steel*	*2017*
- Puisard 9 RPE 001 PS – TR9	*Concrete*	*2018*
- PTR – Rétention SMIPE – Tr1	*Concrete*	*2018*
- Chantier 1 et 2 CRF en salle des machines	*Concrete*	*2019*
- 9 CTE Monochloramine Fosse javel et ammoniaque	*Concrete*	*2019*
- Croix du BAN	*Concrete*	*2019*
- Puisards – Sols ASG – Tr1 et 2	*Concrete*	*2019*
- Local batterie et fosse de neutralisation	*Concrete*	*2020*
- Sols ASG	*Concrete*	*2020*
- Fosse à effluents OHV001AB	*Concrete*	*2020*
- Fosse espace BAN / BAC	*Concrete*	*2020*

EDF - TRICASTIN (26)

- Bâche KER 05BA	*Concrete*	*1983*
- Bâches KER 01, 02, 03, 04, 06	*Concrete*	*1985-1986*
- Bâches TER 1/2/3	*Concrete*	*1987*
- Bâches à eau au local laverie	*Steel*	*1989*
- Caniveau au BTE	*Concrete*	*1989*
- Fosse de rétention de soude 50 % au BK - Tr 3	*Concrete*	*1989*
- Fosse de rétention de soude 50 % au BK - Tr 4	*Concrete*	*1989*
- Puisards et caniveaux soude et acide sulfurique au bâtiment déminé	*Concrete*	*1989*
- Bâches SAP, SAR, SAT	*Steel*	*1990*
- Fosses de neutralisation SDX1 et SDX2	*Concrete*	*1990*
- Fosses de rétention de soude 50 % et d'H2SO4 98% au bâtiment déminé	*Concrete*	*1991-1992*
- Sol du B.A.C.	*Concrete*	*1992*
- Caniveaux de la chaîne de déminéralisation	*Concrete*	*1993*
- Caniveaux extérieurs des bâches KER	*Concrete*	*1993*
- Caniveaux extérieurs des bâches TER	*Concrete*	*1993*
- Caniveaux extérieurs des bâches TER	*Concrete*	*1994*
- Puisard de récupération des caniveaux des rétentions de soude 50 % et d'H2SO4 98 % au bâtiment déminé	*Concrete*	*1994*
- Bâche JPI - Tr 1/2	*Steel*	*1994*
- Fosse de rétention PTR 4	*Concrete*	*1995*
- Fosse de rétention PTR 2	*Concrete*	*1995*
-Caniveaux extérieurs des bâches KER	*Concrete*	*1996*
- Bâche à eau au local laverie	*Steel*	*1996*
- Caniveaux de la chaîne de déminéralisation	*Concrete*	*1997*
- Fosses de rétention TEU/TEP/REA - Tr 1 et 2	*Concrete*	*1999*

Nuclear Power Plants France (next)

EDF - TRICASTIN (next)

- Sols des locaux batteries cadmium nickel	*Concrete*	*2000*
- Caniveaux dans le B.A.N.	*Concrete*	*2000*
- Puisards SEK-KER	*Concrete*	*2000*
- Locaux batteries Tr 3 et 4	*Concrete*	*2001*
- Fosses de rétention GGR-GFR	*Concrete*	*2001*
- Caniveaux BAN 3	*Concrete*	*2001*
- Puisards RIS-EAS – Tr 3	*Concrete*	*2001*
- Fosse de rétention du local K055 Tr 4	*Concrete*	*2002*
- Fosse de rétention BR – Tr 1	*Concrete*	*2002*
- Fosse de rétention S.E.P.	*Concrete*	*2002*
- Aire de dépotage acide sulfurique et soude au bâtiment déminé	*Concrete*	*2002*
- Aire de dépotage TFA	*Concrete*	*2004*
- Bâche GGR - Tr 3	*Concrete*	*2004*
- Rétention soude et acide sulfurique au bâtiment déminé	*Concrete*	*2005*
- Bâche TER 001BA	*Concrete*	*2005*
- Bâche KER 002BA	*Concrete*	*2006*
- Puisards RIS-EAS - Tr 4	*Concrete*	*2006*
- Galeries SEC – Tr 1	*Concrete*	*2007*
- Galeries SEC – Tr 2	*Concrete*	*2008*
- Puisards RIS-EAS, BR - Tr 3	*Concrete*	*2008*
- Galeries SEC – Tr 3	*Concrete*	*2009*
- Locaux batteries – Tr 1, 2 et 3	*Concrete*	*2009*
- Caniveaux du bâtiment déminé	*Concrete*	*2010*
- Galeries SEC – Tr 4	*Concrete*	*2010*
- Caniveaux SDM - Tr 1 à 4	*Concrete*	*2010*
- Caniveaux KER – Tr 0	*Concrete*	*2012*
- Rétention ATP – Tr 1 et 2	*Concrete*	*2012*
- Sols et remontées des locaux électriques BCOT	*Concrete*	*2012*
- Tuyauterie local station de pompage – Tr 2	*Steel*	*2012*
- Rétentions bâches à fuel – Tr 1, 2 et 4	*Concrete*	*2012*
- Fosses à huile, bâtiment Diesel – Tr 1, 2 et 4	*Concrete*	*2012*
- Rétentions GGR et CSI, station de pompage – Tr 3 et 4	*Concrete*	*2012*
- Bâche FCP 002 BA – Tr 3	*Concrete*	*2012*
- Sols et remontées des locaux électriques du BLE – Tr 2 et 4	*Concrete*	*2012*
- Caniveaux extérieurs KER – Tr 2	*Concrete*	*2012*
- Rétentions bâches fuel – Tr 1, 2 et 4	*Concrete*	*2013*
- Bâche 001 BA, local RRI – Tr 2	*Concrete*	*2013*
- Sol atelier huilerie – Tr 0	*Concrete*	*2013*
- Rétention réservoir AGR – 001/002 BA – toutes tranches	*Concrete*	*2013*
- Caniveaux KER – Tr 0	*Concrete*	*2013*
- Bâche à soude au BK – Tr 1	*Steel*	*2014*
- Fosse OSDX 007BA – Tr 0	*Concrete*	*2014*
- Local pompes (sol) au Bâtiment déminé	*Concrete*	*2014*
- Rétention bâtiment diesel – Tr 3 et 4	*Concrete*	*2014*
- Bâche 4 SAR 0015 BA – Tr 4	*Steel*	*2014*
- Caniveaux KER – Tr 4	*Concrete*	*2014*
- Bâche métallique 8TEU005BA – Tr 3 et 4	*Steel*	*2015*
- Bâche SEK 002 BA + caniveau KER	*Concrete*	*2015*
- Local SdM -3.5m – Tr 2	*Concrete*	*2015*
- Bâche 0 SDX 003 BA – Tr 0	*Steel*	*2015*

Nuclear Power Plants France (next)

EDF - TRICASTIN (next)

- *Huilerie - local BAG – Tr 0*	*Concrete*	*2016*
- *Local morpholine – Tr 0*	*Concrete*	*2016*
- *Rétention GGR – Tr 3 et 4*	*Concrete*	*2016*
- *Bâche TEGV – Tr0*	*Concrete*	*2016*
- *Puisard RPE + caniveaux KER – Tr4*	*Concrete*	*2016*
- *Bâche 0 SDX 004 BA – local déminée – Tr 0*	*Steel*	*2016*
- *Bâche 2 RCP 002 BA – BR – AT – Tr2*	*Steel*	*2017*
- *Bâtiment DUS*	*Concrete*	*2017*
- *Local 1 L107 et 108 – BLE -3.50 – TR1*	*Concrete*	*2017*
- *Fosse 0 SDX 008 BA – TR0*	*Concrete*	*2017*
- *- Locaux SIR – SdM*	*Concrete*	*2018*
- *- Reprises PBMP 9NE204 – BAN – Tr9*	*Concrete*	*2018*
- *- Bâches 4SAP002BA - 8TEG206 - SDX003BA*	*Steel*	*2018*
- *- Caniveaux KER devant RPI – Tr 3/4*	*Concrete*	*2018*
- *- Bâche RCP AT – Tr1*	*Steel*	*2018*
- *Rétention déminéralisation*	*Concrete*	*2018*
- *Rétention GFR – Tr3*	*Concrete*	*2018*
- *Bâches 4SAP002BA – 8TEG206 – SDX003BA*	*Steel*	*2018*
- *Bâche 0 KER 004 BA (réparations)*	*Concrete*	*2018*
- *GGR – Tr4*	*Concrete*	*2018*
- *Sous-sol SDM – Niv -3.50 – Tr1*	*Concrete*	*2018*
- *Bâtiment déminé – rétentions*	*Concrete*	*2018*
- *TR1 – Rétention sous-groupe Diesel – D212 Voie A*	*Concrete*	*2018*
- *TR4 – Caniveaux local DEL*	*Concrete*	*2018*
- *Rétention Aire TFA N2 – Tr 0*	*Concrete*	*2019*
- *Chantier BAN 8 – Bâche TEG 207 BA*	*Steel*	*2019*
- *Caniveaux RPE*	*Concrete*	*2019*
- *Bât déminé – Rétentions*	*Concrete*	*2019*
- *Rétention sous-groupe diesel DUS 0 LHT – Tr0*	*Concrete*	*2019*
- *Local 1 L107 et 108 - Tr 1 – BLE -3.50*	*Concrete*	*2019*
- *Rétention CRF*	*Concrete*	*2019*
- *Puisards dans locaux EF*	*Concrete*	*2019*
- *Bâtiment DUS*	*Concrete*	*2019*
- *Bâche 0 KER 002 BA – Tr0*	*Concrete*	*2019*
- *Rétention déminé et caniveau RPE BAN 8*	*Concrete*	*2019*
- *Cunettes locaux DLE – Tr3*	*Concrete*	*2019*
- *Chantier BAN 8 – Bâche 9 TEG 206 BA*	*Steel*	*2019*
- *Bâche SEB*	*Steel*	*2019*
- *Caniveaux KER TR0*	*Concrete*	*2020*
- *Rétention bâche PTR*	*Concrete*	*2020*
- *Aire de dépotage du Bâtiment déminé*	*Concrete*	*2020*
- *Rétention soude*	*Concrete*	*2020*

Nuclear-related Plants and Research Centers – France

ANDRA - CENTRE DE STOCKAGE DE L'AUBE - SOULAINES (10)

- Fosse de récupération des eaux d'infiltration	*Concrete*	*1991*
- Radiers de cellules de stockage	*Concrete*	*2009 à 2013*
- Voiles des cellules de stockage E3 et E7	*Concrete*	*2012*
- Radiers de cellules de stockage	*Concrete*	*2014 - 2015*
- Radiers des cellules de stockage E5	*Concrete*	*2015*
- Déchetterie – plots	*Concrete*	*2015*
- Radiers de cellules de stockage E51R04, E59R04, E34R05, E47R05 et E55R05	*Concrete*	*2016*
- Radiers de cellules de stockage	*Concrete*	*2019*

CEA - CEN DE CADARACHE (13)

- Paniers de décontamination	*Steel*	*1967*
- Réacteur CEZARINE : cuve à eau déminéralisée	*Steel*	*1977*
- Extérieur du dôme de la cuve T2	*Concrete*	*1988*
- Sce SPR : cuve T2 BT 320 d'effluents radioactifs	*Concrete*	*1988*
- Sce SPR : cuve T1 BT 320 d'effluents radioactifs	*Concrete*	*1989*
- Bât. SAR N° 323 : fosse de rétention d'effluents radioactifs	*Concrete*	*1989*
- Puisard BT 324	*Concrete*	*1989*
- Bâtiment 319 : fosse de rétention d'eau contaminée	*Concrete*	*1990*
- Extérieur de containers INB56	*Steel*	*1995-1996*
- Bâtiment réacteur RES : sous-dalle	*Concrete*	*2006*
- Rétention eaux uranifères	*Concrete*	*2009*
- Bâche à boues	*Concrete*	*2009*
- Réacteur AGATE : bassins et rétention eau uranifère	*Concrete*	*2010*
- STEP industrielle : 2 bassins et 2 décanteurs	*Concrete*	*2011*
- RJH Bâtiment BR niv-3m, tous voiles et radiers	*Concrete*	*2014-2015*
- RJH revêtement de la crypte	*Concrete*	*2014-2015*
- Réacteur CEZARINE	*Steel*	*2017*
- Chantier ITER	*Concrete*	*2019-2020*

CEA - CEN DE FONTENAY AUX ROSES (92)

- Dalle de dépotage	*Concrete*	*2001*
- Aire de dépotage Bât. 108	*Concrete*	*2014*

CEA - CEN DE GRENOBLE (38)

- *Piscine à neutrons :*	*Steel and*	
cuve à eau déminéralisée et batardeaux	*Concrete*	*1969*
- *Cuve à effluents actifs*	*Steel*	*1969*
- *Bâtiment Pile SILOETTE : sol - Fosse de rétention*	*Concrete*	*1990*
- *Bâtiment L : puisard d'eau déminéralisée*	*Concrete*	*1990*
- *Bâtiment Pile SILOETTE : fosse de rétention*	*Concrete*	*1993*
- *Zone BEFFE : zone échangeur de la Pile Siloé - Puisard B1*	*Concrete*	*1994*
- *Bâtiment U2 : fosse de rétention sous le sol 6*	*Concrete*	*1995*
- *Bâtiment 1 Pile SILOE : fosse de rétention*	*Concrete*	*1997*
- *Bâtiment J : fosses de stockage*	*Concrete*	*2006*

CEA - CEN DE MARCOULE (30) - REACTEUR PHENIX

- *Cuve à eau déminéralisée*	*Steel*	*1968*
- *Cuves tampon*	*Concrete*	*1985*
- *Plate-forme agro-alimentaire UPAG : fosses de rétention et caniveaux*	*Concrete*	*1986*
- *Démontage réacteur G2 - Fosse de rétention d'effluents contaminés*	*Concrete*	*1986*
- *Aire de dépotage soude et HNO3 – 11,5 N*	*Concrete*	*2004*
- *Stockage effluents uranifères*	*Concrete*	*2008*
- *Local - gaz radon sous G1*	*Concrete*	*2013*
- *Rétention sous-groupe électrogène - projet ISAIL*	*Concrete*	*2013*
- *PHENIX - Rétention NAOH*	*Concrete*	*2016*

CEA - CEN DE SACLAY (91)

- *REACTEUR OSIRIS - Bâches à effluents actifs et à eau déminéralisée*	*Concrete*	*1966*
- *REACTEURS OSIRIS et ISIS :*		
Panneaux d'eau déminéralisée active	*Steel*	*1966*
- *REACTEUR EL 3 - Cœur de piscine*	*Aluminium*	*1968*
- *REACTEUR OSIRIS - Cuves à eau déminéralisée*	*Steel*	*1976*
- *REACTEUR ISIS - Bac cœur et bac piscine*	*Steel*	*1977*
- *REACTEUR OSIRIS - Cuve à eau déminéralisée*	*Concrete*	*1978*
- *REACTEUR OSIRIS - Canal 1*	*Steel*	*1978*
- *Bâtiment chaud N° 59 : sols épais décontaminables*		
+ murs + fosses de rétention	*Concrete*	*1985-1987*
- *Bâtiment Diesel - SAS : aires d'entrée de camion*	*Concrete*	*1988*
- *REACTEUR OSIRIS - Cuve à eau déminéralisée*	*Steel*	*1989*
- *REACTEUR OSIRIS - Bac cœur et bac piscine*	*Steel*	*1994*
- *REACTEUR OSIRIS - Batardeaux*	*Steel*	*2006-2007*
- *Bâtiment 633 : salle des mécanismes (voiles et radier)*	*Concrete*	*2010*
- *REACTEUR OSIRIS - Cuve de désactivation (partiel)*	*Steel*	*2013*
- *Casemate bâtiment Osiris – sol*	*Concrete*	*2015*
- *Caniveau INB 40*	*Concrete*	*2016*
- *Bâtiments 114, 116 et 120*	*Concrete*	*2019*

Nuclear-related Plants and Research Centers France (next)

CEA - CESTAS LUGOS (33)

- Canon expérimental	*Concrete*	*1988*

AREVA NC - COGEMA - LA HAGUE (50)

- Local STE 3 : fosses de rétention d'acides	*Concrete*	*1984*
- Sols épais décontaminables	*Concrete*	*1985*
- Sols épais décontaminables	*Concrete*	*1986*
- Atelier R2 : fosses de rétention	*Concrete*	*1987*
- Atelier R : fosses de rétention	*Concrete*	*1988*
- Sols épais décontaminables	*Concrete*	*1988*
- Atelier T7 : fosses de rétention	*Concrete*	*1990*
- Sols épais décontaminables	*Concrete*	*1991*
- Atelier T1 : fosses de rétention des salles 647, 726 et 732	*Concrete*	*1991*
- Bâtiments R1 et R2 : fosses de rétention	*Concrete*	*1992*
- Bâtiment DE/EDS : sols de l'alvéole 206.2	*Concrete*	*1994*
- Bâtiment R2 - STC : fosses de rétention	*Concrete*	*1995*
- Bâtiment CPE 1 : fosses de neutralisation 5036 et 5037	*Concrete*	*1996*
- Bâtiment 119 : fosse de rétention de soude	*Concrete*	*1996*
- Hall de recherche SGN Beaumont - fosse à effluents	*Concrete*	*1997*
- Bâtiment DE/EDS - sol de l'alvéole 207.2	*Concrete*	*1997*
- Bâtiment R4 - sols et caniveaux	*Concrete*	*1998*
- Atelier de Compactage des Coques - rétentions	*Concrete*	*1998*
- Caniveaux de récupération des eaux des aéroréfrigérants HA/PF	*Concrete*	*1999*
- Bâtiment R4 - Atelier T3 - murs et sol	*Concrete*	*2000*
- Atelier T7 - rétention eau oxygénée	*Concrete*	*2002*
- Atelier T3 BC3 - rétention réactifs	*Concrete*	*2011-13*
- Bâtiment EEVLH salle 519 - Sol	*Concrete*	*2013*
- Bassin GU 2219	*Concrete*	*2013*
- Rétention STU/R2/STE3	*Concrete*	*2017*

AREVA NC - COGEMA - MARCOULE (30)

- Usine PU - rétention au traitement des eaux- niveau Sutter	*Concrete*	*1987*
- Site PHENIX - rétention de bac d'eau déminéralisée	*Concrete*	*1987*
- Bâtiment « EVA-BPE » - local batteries	*Concrete*	*1988*
- Bâtiment E.I.P. - rétention	*Concrete*	*1997*
- Site de Mélox – 3 regards à fuel	*Concrete*	*2014*
- Salles 130 et 140 - sols	*Concrete*	*2014*
- STEL : rétention	*Concrete*	*2014*

Nuclear-related Plants and Research Centers France (next)

AREVA NC - COGEMA - PIERRELATTE (26)

- Bâtiment Urée - rétention	*Concrete*	*1986*
- Local batterie - sol	*Concrete*	*1988*
- Bâtiment Urée - rétention COTON acide nitrique 50% et acide sulfurique 92%	*Concrete*	*1990*
- Local réfrigérant : rétention d'eau froide	*Concrete*	*1991*
- Rétention d'Eau de Javel U613/U619	*Concrete*	*1993*
- Rétention d'uranyle	*Concrete*	*1995*
- Local batterie : sol	*Concrete*	*1995*
- Usine W - HF2 : rétention acide fluorhydrique 70%	*Concrete*	*2003*
- Atelier TU/2 : zone de dépotage soude et ammoniaque	*Concrete*	*2004*
- Atelier TU/5 – Salle 242 : rétention acide nitrique 60% - peroxyde d'hydrogène 70%	*Concrete*	*2008*
- STEC : rétentions acide sulfurique 30% et eau uranifère	*Concrete*	*2010*
- STEC : rétentions acide sulfurique 30%	*Concrete*	*2011*
- Parking P4 des LR68 - rétention nitrate d'uranyle	*Concrete*	*2011*
- STEC : rétention eaux acides et basiques	*Concrete*	*2012*
- Usine W bâtiment HF3 - Rétention HF et aire dépotage	*Concrete*	*2014*
- Rétention HF	*Concrete*	*2015*

Nuclear-related Plants and Research Centers France (next)

AREVA NC - COMURHEX MALVEZI - NARBONNE (11)

- Fosses de rétention HNO3 – 14N + caniveau	*Concrete*	*2003*
- Rétention extérieur acide nitrique et nitrate d'uranyle 12 et 13	*Concrete*	*2009*
- CX2 Bassin aéroréfrigérant – E03-210- 212- 214-216-218	*Concrete*	*2010*
- Rétention local pompe - CX2	*Concrete*	*2010*
- Cuve de stockage eau de process - CX2	*Concrete*	*2010*
- Rétentions 3, 5, 15, 16, 17 nitrate d'uranyle et acide nitrique des cuves R 2220 /2221/2444/2400/2404	*Concrete*	*2011-12*
- Bâtiment TDG – Rétentions acide nitrique 4 à 13, 6N	*Concrete*	*2012*
- Rétention n° 12 de la cuve R2405 - acide nitrique 14 N	*Concrete*	*2014*
- Bâtiment 50 – Rétention	*Concrete*	*2014*
- Rétention acide nitrique	*Concrete*	*2015*
- Rétention D24.30, D29.40, D28.00 – Bâtiment rectification	*Concrete*	*2016*
- Rétention eau uranifère	*Concrete*	*2016*
- Rétention 2404	*Concrete*	*2017*

AREVA NC - COMURHEX - PIERRELATTE (26)

- Comurhex1, Local stockage soude et potasse- murs	*Concrete*	*1986*
- Comurhex 1, Piscine R 105 B	*Concrete*	*1995*
- Comurhex 1, Rétention acide nitrique 58%	*Concrete*	*2000*
- Comurhex 1, Aire de stockage de fûts URT : rétention diuranate de potassium et acides divers	*Concrete*	*2008*
- Comurhex 1, Bâtiment ST1000 - rétention acide chlorhydrique 32%, nitrique 58%, potasse 340 g/l	*Concrete*	*2008*
- Comurhex 1 – rétention fuel R5210	*Concrete*	*2011*
- Comurhex 2, bâtiment 61 - rétentions acide fluorhydrique anhydre	*Concrete*	*2011-13*
- Comurhex 1 Structure 800, Puisard R801 de la rétention potasse	*Concrete*	*2013*
- Comurhex 2 Bât 65 - rétentions S 004, et S 008 à S 013 eau uranifère	*Concrete*	*2014*
- Comurhex 2 rétentions 035 + 144, potasse et monoéthylèneglycol	*Concrete*	*2014*
- Comurhex 2 revêtement des sols et rétention acide sulfurique, potasse	*Concrete*	*2014*
- Comurhex 1 caniveau MR103 & rétention R124 acide fluorhydrique	*Concrete*	*2014*
- Comurhex 2 rétention MEG ext.	*Concrete*	*2015*
- Comurhex 2 bâtiment 64 - rétention locaux 072 et 075	*Concrete*	*2015*
- Comurhex 2 rétention salle 128	*Concrete*	*2015*
- Comurhex 2 bâtiment 68 - rétention	*Concrete*	*2015*
- Comurhex 2 sol et caniveaux anti HF – Local A001	*Concrete*	*2016*
- Comurhex 2 rétentions bâtiments 62A et 62E local E001	*Concrete*	*2017*
- Comurhex 1 rétention colonne C902	*Concrete*	*2017*
- Comurhex 2 bâtiment 68 – rétention	*Concrete*	*2017*
- - Comurhex 1 bassin R 105 B	*Concrete*	*2019*
- -Comurhex 1 caniveaux ST200E	*Concrete*	*2020*

Nuclear-related Plants and Research Centers France (next)

AREVA NC - EURODIF - TRICASTIN (26)

- *Filtres à sable*	*Steel*	*1986-1988*
- *Rétention d'acide sulfurique 70 % - Bâtiment U*	*Concrete*	*1988*
- *Toiture-terrasse des bâches de trichlorofluorométhane, trichloréthylène et perchloréthylène - Annexe U*	*Concrete*	*1989*
- *Filtres à sable*	*Steel*	*1993-1995*
- *Filtres à sable*	*Steel*	*1997-1998*
- *Filtres à sable*	*Steel*	*1999-2000*
- *Filtres à sable*	*Steel*	*2002*
- *Robe du bac circulator EE*	*Steel*	*2006*

AREVA NC - SOCATRI - BOLLENE (84)

- *Atelier de traitement au trempé - rétention*	*Concrete*	*1985*
- *Atelier PORAL - Rétention d'acide sulfurique 92 %*	*Concrete*	*1988*
- *Atelier MOKA - Rétention d'effluents contaminés*	*Concrete*	*1989*
- *Bât. Nickelage Sulfamate - rétention USG-UTG-UFE d'eau déminée*	*Concrete*	*1990*
- *Bâtiment A.P.P.- rétention d'effluents et sol*	*Concrete*	*1990*
- *Bâtiment A.P.P.- Rétention de potasse*	*Concrete*	*1994*
- *Atelier petites pièces - salles nord et sud - plafonds*	*Concrete*	*2006*
- *Bâtiment TU5 - rétention LR 65 – nitrate d'uranyle*	*Concrete*	*2011*
- *Rétentions B2, B3, B13 – eaux uranifères*	*Concrete*	*2011-2012*
- *Projet Prisme - Bât DGB, T207, T313, T373 - rétentions eaux uranifère*	*Concrete*	*2012*
- *STEF – rétention acide 04 BBD 508 solution sulfate ferreux et polychlorosulfate d'aluminium pH2*	*Concrete*	*2012*

AREVA NP - SOMANU - MAUBEUGE (59)

- *Sols épais décontaminables*	*Concrete*	*1985-1986*
- *Sols épais décontaminables*	*Concrete*	*1988-1989*
- *Sols épais décontaminables*	*Concrete*	*1993 à 1996*

AREVA NP – SULLY SUR LOIRE (45)

Projet CEDOS : local de stockage cuves, sol et murs	*Concrete*	*2015*

AREVA - FBFC - ROMAN (26)

- *Station HF - Aire de dépotage d'acide fluorhydrique ?*	*Concrete*	*2013*
- *Atelier R1 - rétentions blocs 1,2 et 3 eau oxygénée, potasse, acide nitrique, ammoniaque*	*Concrete*	*2013*
- *Local de décontamination - rétention acides nitrique et chlorhydrique*	*Concrete*	*2014*

EDF - ICEDA – BUGEY (01)

- *Bâtiment technique AN501 : voiles*	*Concrete*	*2015*
- *Cellule 222 – bâtiment Process*	*Concrete*	*2016*
- *Fosse Lorry*	*Concrete*	*2016*
- *Cellules 501 et 340*	*Concrete*	*2016*
- *Cellules 502, 226 et 340*	*Concrete*	*2017*
- *Cellule 227 – BNG*	*Concrete*	*2017*
- *Rétention*	*Concrete*	*2018*

- Rétention	*Concrete*	*2019*

Nuclear-related Plants and Research Centers France (next)

EDF R&D - SITE DES RENARDIERES - MORET S/LOING (77)

- Galerie technique : fosse de rejet	*Concrete*	*1989*
- Bâtiments ADE 8 - ADE 12 : habillage de panneaux de façade	*Concrete*	*1994*
- Bâtiment ADEI 10 : habillage de panneaux de façade	*Concrete*	*1995*

EDF - SOCODEI CENTRACO - BAGNOLS s/CEZE (30)

- Bâtiment d'incinération : fosses de rétention	*Concrete*	*1996*
- Bacs – effluents froids de lessivage des GV	*Steel*	*2011*
- Bacs 7530 et 7510 – effluents froids de lessivage des GV	*Steel*	*2014*

I.L.L. - INSTITUT LAUE LANGEVIN - GRENOBLE (38)

- Piscine RHF - réacteur à hauts flux : batardeaux	*Steel*	*1993*
- Piscine H1 - H2 : carter Pink	*Steel*	*2006*
- Rétentions 827 RA 01/02 & 828 RA 01	*Concrete*	*2019*
- Batardeaux	*Steel*	*2020*

ONET OTLD – PIERRELATTE (26)

- SOGEVAL 1 – sol cellules 3 et 5	*Concrete*	*2016*

ORANO – TRICASTIN (26)

- Parc P04F (24 rétentions)	*Concrete*	*2019*
- Chantier 68R10500	*Concrete*	*2019*

ORANO – LA HAGUE (50)

- Rétention	*Concrete*	*2019*
- Réactif EP3	*Concrete*	*2020*

ORANO – MALVESI (11)

- Rétention	*Concrete*	*2020*

ORANO – PIERRELATTE (26)

- Rétention INB 105	*Concrete*	*2019*
- Rétention cuve R005 BAT STEL	*Concrete*	*2020*
- CX2 Bâtiment 62	*Concrete*	*2020*

ORANO – HAUTE VIENNE (87)

- Rétention eaux incendie	*Concrete*	*2019*

Thermal Power Plants – France

EDF - AMBES (33)

- Bâche à eau résiduaire - Tr 6	*Concrete*	*1997*

EDF - ARAMON (13)

- Rétention et fosse de neutralisation soufre + eau chaude / chaux	*Concrete*	*2004*
- Rétention soude / eau de javel / acide sulfurique 98% / chlorure ferrique	*Concrete*	*2005*

EDF - BLENOD (54)

- Boîtes à eau de condenseurs	*Concrete*	*1998*
- Plaques à eau de condenseurs	*Steel*	*1999*

EDF - BOUCHAIN (59)

- Tuyauterie d'amenée et de refoulement des eaux de refroidissement	*Steel*	*1992-93-95*
- CCG bâche eau déminé plus eau brute	*Steel*	*2014*

EDF - CHAMPAGNE S/OISE (95)

- Tuyauteries d'amenée et de refoulement des eaux de refroidissement	*Steel*	*1993*
- Rétention soude	*Concrete*	*1994*
- Rétention soude	*Concrete*	*1997*

EDF - CORDEMAIS (44)

- Plaques et boîtes à eau de condenseurs - Tr 1	*Steel*	*1993*
- Bâches à cendre 100 PS / 400 PS / 600 PS	*Concrete*	*1996-1997*
- Plaques et boîtes à eau de condenseurs - Tr 5	*Steel*	*1999*
- Bac tampon d'eau de mer 450 BA	*Steel*	*2003*
- Bac n° 8 : fuel lourd	*Steel*	*2007*
- Bâtiment FOD - Local pompes et rétention	*Concrete*	*2012*
- Bac n°9 : fuel lourd	*Steel*	*2013*
- Fosse 500 PS lavage des effluents – Tr 5	*Concrete*	*2014*
- Pieux pour supports de passerelle	*Steel*	*2015*

EDF - DUNKERQUE (59)

- Tuyauteries d'amenée et de refoulement des eaux de refroidissement (eau de mer) à la station de pompage - Tr 4	*Steel*	*1993*
- Tuyauteries d'amenée et de refoulement des eaux de refroidissement (eau de mer) à la station de pompage - Tr 3	*Steel*	*1994*
- Tuyauteries d'amenée et de refoulement des eaux de refroidissement (eau de mer) à la station de pompage - Tr 3/4	*Steel*	*1995*
- Caniveaux (eau de mer) à la station de pompage - Tr 3/4	*Concrete*	*1995*
- Bâches à huile - Tr 3/4	*Concrete*	*1996*

Thermal Power Plants France (next)

EDF - DEGRAD DES CANNES/GUYANE (973)

- Bacs de fuel lourd et de fuel domestique	Steel	2005

EDF – DES MONTS D'ARREE BRENNILIS (29)

- Sous-sol de l'IDT	Concrete	2018

EDF - POINTE JARRY/GUADELOUPE (971)

- Bacs de fuel lourd et de fuel domestique	Steel	2011
- Cuves d'eau incendie		
d'eau de dessalement d'eau de mer pour dépollution des fumées	Steel	2011
- Bac 203 fuel – fond et remontée	Steel	2013
- Bacs 2206 et 2207	Steel	2014

EDF - LE HAVRE (76)

- Sols et rétentions au bâtiment de désulfuration	Concrete	1997
- Dégrilleur	Steel	2014

EDF - LA MAXE (54)

- Boîtes à eau de condenseurs	Concrete	1998
- Fosse de rétention acide chlorhydrique 33%	Concrete	2001
- Conduite d'amenée BONNA - Tr 1 et 2	Concrete	2004
- Fosse eau de neutralisation	Concrete	2007

EDF – BELLEFONTAINE/LA MARTINIQUE (972)

- Réservoir d'eau potable	Concrete	1984
- Réservoir d'eau déminéralisée	Steel	2006
- Bacs de fuel lourd et de fuel domestique	Steel	2011
- Bacs de gazole, fuel lourd, et effluents industriels	Steel	2013
- Rétention d'hydrocarbures	Concrete	2013

EDF - LUCCIANA (20)

- Bac de fuel lourd - fond et remontée	Steel	2002
- Rétention fuel : joints de fractionnement	Concrete	2006
- Fond de bac de fuel lourd n°1	Steel	2008
- Décanteur hydrocarbures	Concrete	2011
- Sols et caniveaux du bâtiment atelier	Concrete	2012
- 2 bacs à fuel domestique – fond robe et sous-face de toit 00BK12207BA et 00GDK2204BA	Steel	2013
- 4 bacs à huile - fond robe et sous-face de toit 00GDG2201BA - 00GDG2202BA - 00GDG2211BA - 00GDG2212BA	Steel	2013
- Sols 7 salles moteur	Concrete	2014

EDF - MONTEREAU (77)

- Bacs de fuel OBK 1100 OBK 1200	Steel	2010
- Bac eau brute OSEB 1110BA	Steel	2011

EDF - LE PONTEAU/MARTIGUES (13)

- Conduite d'amenée BONNA – Tr 6	Concrete	2012
- Bâche d'eau de mer	Concrete	2013
- Tambours filtrants dans fosse eau de mer	Steel	2013
- Fosse eau mer – Tr 0	Concrete	2014
- Panneaux filtrants + tambour – Tr 0	Steel	2014
- Fosse d'eau déminée	Concrete	2015
- Plancher haut SDM	Concrete	2017
- Rétentions	Concrete	2018
- Local chaufferie	Concrete	2019

EDF - LE PORT/LA REUNION (974)

- Bacs de fuel lourd et de fuel domestique	Steel	1983
- Bacs de fuel lourd et de fuel domestique	Steel	2010

EDF - PORCHEVILLE (78)

- Rétention FOD	Concrete	2013
- Conduite d'amenée BONNA (sous-face) – Tr 1	Concrete	2013
- Rétentions soude en extérieur – Tr 1 et 2	Concrete	2013
- Dalle 1 aire de dépotage – Tr 3	Concrete	2014
- Dalle 2 aire de dépotage – Tr 4	Concrete	2014

EDF - RICHEMONT (57)

- Conduites de transport de gaz de haut fourneau + pied de purge	Steel	2002 à 2006

EDF - SALON DE PROVENCE (13)

- Rétention semi-enterrée (110 m²)	Concrete	2019

EDF - VAIRES (77)

- Bâche à eau OSEB 1100	Steel	2008
- Bac de fuel OBK 1100	Steel	2008
- Bacs de fuel OBK 1200, OBK 1300, OBK 1400	Steel	2009
- Bassin d'orage et rétention du local traitement pH (HCl)	Concrete	2015

EDF - VAZZIO (20)

- Bac 00GDK 003 BA – fuel lourd n°2 TBTS	Steel	2011
- Piscines de 2 tours aéroréfrigérantes	Concrete	2011-2013
- Reprises bassin aéro 4	Concrete	2014

Thermal Power Plants France (next)

EDF - VITRY (94)

- Rétention soude 47% et H2SO4 96% au bâtiment déminé	*Concrete*	*1991*
- Fosse de neutralisation et caniveaux au bâtiment déminé	*Concrete*	*1994*
- Aire de dépotage - Soude 50 % et acide sulfurique 96 %	*Concrete*	*1996*
- Réservoir d'eau déminéralisée	*Steel*	*2001*
- Bac de fuel 0SPF 0108 BA	*Steel*	*2009*
- Rétention du parc à fioul	*Concrete*	*2015*

SNET ENDESA - Centrale thermique de Provence (13)

- Boîtes à eau de condenseurs	*Steel*	*2009*

Hydro-electric Power Plants – France

***EDF - GRPH LOIRE - Usine de MONTPEZAT** (07)*		
- Réservoir d'eau industrielle	*Steel*	*1983*
***EDF - GRPH - TOULOUSE** (66)*		
- Intérieur de conduite forcée (partiel) du CASTELET	*Steel*	*1989*
- Intérieur de conduite forcée de BANCA (64)	*Steel*	*1990*
- Intérieur de conduite forcée de BORDERES (65)	*Steel*	*1992*
EDF – SRH – VAL D'ISÈRE		
Service maintenance hydraulique -tourteau	*Steel*	*2015*
Tourteau	*Steel*	*2018*
EDF - Usine de KEMBS (68)		
- Cuve à huile	*Steel*	*2015*
EDF – Barrage de la Rance (35)		
- tubes	*Steel*	*2017*

Nuclear Power Plants – World

BELGIUM : TIHANGE		
- Caniveaux au bâtiment déminé - Tr 3	*Concrete*	*1987*
- Rétention d'acide sulfurique aux locaux CTEP 14	*Concrete*	*1988*
- Rétention d'acide chlorhydrique au local 304	*Concrete*	*1988*
BULGARIA : KOZLODUY		
- Piscine de désactivation du réacteur - Tr 2	*Inox*	*1993*
CHINA : CHANGJIANG		
- Puisards RIS-EAS	*Concrete*	*2014*
CHINA : DAYA BAY		
- Contrat Revêtements Spéciaux	*Concrete/Steel*	*1989 à 1991*
- Contrat Revêtements Spéciaux (next/fin)		*1992-1993*
- Puisards RIS-EAS	*Concrete*	*2000*
- Puisards RIS-EAS	*Concrete*	*2002*
- Puisards RIS-EAS	*Concrete*	*2014*
CHINA : FUQING		
- Puisards RIS-EAS	*Concrete*	*2014*
CHINA : GUANGXI FANGCHENGGANG		
- SER Tank	*Steel*	*2018*
CHINA : HONGYANHE		
- Puisards RIS-EAS	*Concrete*	*2011*
CHINA : LING AO		
- Puisards RIS-EAS	*Concrete*	*2001*
- Puisards RIS-EAS	*Concrete*	*2003*
- Bâches SER	*Steel*	*2006*
- Bâches SER	*Steel*	*2008*
CHINA : NING DE		
- Puisards RIS-EAS	*Concrete*	*2001*
- Puisards RIS-EAS	*Concrete*	*2003*
- Bâches SER	*Steel*	*2010*
- Puisards RIS-EAS	*Concrete*	*2011*
CHINA : QINSHAN		
- Puisards RIS-EAS	*Concrete*	*2009*

Nuclear Power Plants - World (next)

CHINA : TAISHAN

- *Contrat Revêtements Spéciaux **EPR** 1*	*Concrete/Steel*	*2010 à 17*
- *Contrat Revêtements Spéciaux **EPR** 2*	*Concrete/Steel*	*2011 à 19*

CHINA : YANGJIANG

- *Bâches à eau déminéralisée*	*Steel*	*2010*
- *Puisards RIS-EAS*	*Concrete*	*2014*

ENGLAND : HINKLEY POINT C

- *Contrat Revêtements Spéciaux **EPR 1***	*Concrete/Steel*	*2021 onwards*
- *Contrat Revêtements Spéciaux **EPR 2***	*Concrete/Steel*	*2021 onwards*

KAZAKHSTAN : AKTAU

- *Piscine de désactivation du BK*	*Steel*	*2004*

SOUTH AFRICA : KOEBERG

- *Puisards RIS-EAS*	*Concrete*	*2006-2007*

UKRAINE : ROVNO

- *Puisards RIS-EAS - Tr 4*	*Concrete*	*2004*