



Osmosis treatment

PROCESS SPECIFICATION

MARCH 2021

A 6 STEP PROCESS



1. Substrate preparation
2. Impregnation: « Impregard » layer 1
3. Sealing : « Impregard » layer 2
4. Insulation: « Epoxygard »
5. Fairing « Watertight or Blue Filler Epoxy»
6. Protection « Epoxygard »



Step 1 : Substrate preparation



Gel plane peeling or polyester grit blasting to abrade surface prior to treatment.

Rinsing with fresh water & drying of laminate. Repeat operation to ensure removal of any unwanted (salt, soluble residue) and moisture.

Proceed to natural drying of laminate or with adapted system depending on location and season : ventilation, air flow.

Keep readings of Temperature/Humidity system records by checking systematically above and below the waterline.

Before starting the treatment, be sure moisture rate of the hull is between 5% and 10% and no greater than 5% to the rate above the waterline (Tramex 2 to 10 /scale1)

Needle deviation	Very low humidity	Humidity	High Humidity	Saturation
TRAMEX ladder 1	2 to 10	10 to 30	30 to 90	> 90
SOVEREIGN ladder A	1.5 to 5	5 to 15	15 to 20	> 20
	Treatment	Rinse/dry cycle + measurement mapping		

Data for information purposes, no warranty

Step 2 : Impregnate the substrate



IMPREGARD :

This solvent free epoxy coating is a resin with high-wetting/Impregnation features to rebuild initial aspect of damaged laminates



Apply one thick coat by brush or roller.

- If surface peeled with plane : 12m²/kg
- If surface sandblasted : 8m²/kg

Ensure that resin penetrates all crevices of the surface.



Temperature	15°C	20°C	25°C
Overcoated by itself (without sanding)	Mini- Max 6h to 48h	Mini - Max 4h to 36h	Mini - Max 3h to 24h
Drying time before sanding	36h	18h	14h

Step 3 : Sealing the substrate



Once dried : Sand the surface with grit P80 to lop the ends of fibreglass which go beyond the surface by “wick effect”.

This operation is very important to avoid any risk of moisture absorption by capillary action.

Apply a 2nd layer of Impregard by roller or airless.

- Allows to fill up last voids and wet out any dry fibre's.
- Ensure fibres are fully coated in resin.

Recommended thickness : 120µm wet per coat.

A 3rd coat could be applied if the surface is not regular after the 2nd coat.



« Wick effects » on surface : must
be sanded

Step 4 : Insulation



EPOXYGARD :

High performance protective coating gives long wet on wet overcoating time.

This layer provides a hard and uniform finishing aspect. This will highlight any hull defects before application of filler.



Apply 1st thin layer of EPOXYGARD epoxy primer

- Maximum recommended thickness : 130µm wet per coat
- Coverage : 7m²/L



Temperature	15°C	20°C	25°C
Overcoating time without sanding between IMPREGARD and EPOXYGARD	Mini - Max 6h to 48h	Mini - Max 4h to 36h	Mini - Max 3h to 24h

Step 5 : Fairing



WATERTIGHT OR BLUE FILLER :

Fast-drying **WATERTIGHT** filler for low thickness application (5mm) and small local repairs (density 1).

BLUE filler for high-thickness application and fairing of large surfaces (density 0,8).

Application of filler is optional : depending on importance of surface imperfection (mixing ratio 1/1 in weight & volume)

Sanding



Temperature	10°C	15°C	20°C	25°C
Overcoated time without sanding between EPOXYGARD and epoxy filler	Mini - Max 8h to 5 days	Mini - Max 6h to 4 days	Mini - Max 4h to 3 days	Mini - Max 3h to 2 days
Minimum time before Watertight filler sanding	9h	6h	4h	3h
Minimum time before Blue filler sanding	24h	16h	8h	5h

Step 6 : Protection & finitions



EPOXYGARD :

Epoxygard is an epoxy primer giving high protection against moisture.

It gives large overcoating window to aid easier application, also good resistance to abrasion



Apply 4-6 coats of Epoxygard :

- Application by roller or spraygun (thinning) : 10 - 20%
- Maximum Recommended thickness : 130µm wet/coat
- Coverage : 7m²/L

Respect overcoating time between layers to allow good evaporation of solvents. **DO NOT TRY TO REDUCE THE RECOMMENDED OVERCOATING TIMES.**



Temperature	10°C	15°C	20°C	25°C	30°C
	Mini - Max	Mini - Max	Mini - Max	Mini - Max	Mini - Max
Overcoated by itself	8h to 5 days	6h to 4 days	4h to 3 days	3h to 48h	2h to 36h
Overcoated by antifouling	8 to 30h	6h to 24h	4h to 16h	3h to 12h	2h to 8h
Drying time before Sanding	24h	16h	12h	8h	6h

PRODUCT REFERENCES

Product	Description	Color	1 kg	2,5 Kg		
IMPREGARD	Impregnation resin	Transparent	15.19.26	15.19.28	-	-
			0,75L	2,5 L	5 L	20 L
EPOXYGARD	Watertight primer	Grey	15 19 90	15 19 91	15 19 92	15 19 93
		Ivory	15 19 95	15 19 96	15 19 97	-
				1 L	5 L	30 L
BLUE FILLER	Epoxy filler - Density 0,65	Light Blue	-	-	15 18 42	15 18 44
WATERTIGHT	Epoxy filler - Density 1	Light Pink	-	15 18 53	15 18 54	-
			0,75 L	2,5 L	-	-
DE	Thinner for EPOXYGARD	Transparent	15 17 50	15 17 52	-	-

Epoxygard application

Roller : Nautix DE thinner 5 to 10 %

Conventional spray : 2.0 to 2,5 bars, nozzle 1,6 mm to 2mm, Thinner DE 10 to 20%

Airless : 170 to 240 bars, nozzle 419 to 525 , Coverage 7m²/l



Technical support

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