

INTRODUCTION

Quick notes:

- Does not contain chromates and heavy metals.
- All round protection for carbon fiber structures.

PRO-PRIME 213 is a fast, anti-corrosive epoxy primer used to protect carbon fibre reinforced boats, masts, spars and other structures. It is RoHS compliant, free of chromates and heavy metals. It is an excellent galvanic corrosion blocker. It exhibits very strong adhesion and produces a hard protective shell.

APPLICATION METHOD

Suitable for brush/roller or spray application.

FEATURES

- 2:1 by volume,
- strong adhesion to CFRP and metals,
- blocks galvanic reaction between CFRP and metals,
- chromate and heavy metal free,
- fast drying, multiple layers can be applied per day,
- available in black, off-white and grey,
- hard protective shell.

PRO-PRIME 213

ANTI-CORROSIVE EPOXY PRIMER FOR CFRP

TECHNICAL DATA SHEET



PRODUCT DATA

PRO-PRIME 213: Properties.	
Mix ratio, by volume	2:1
Mix ratio, by weight	100:29
Volume solids, % <i>of mixture, undiluted, approx.</i>	70
V.O.C., g/ltr <i>of mixture, undiluted, approx.</i>	276
Specific weight, kg/ltr <i>of mixture, undiluted, approx., ISO 2811</i>	1.48
Induction time, mins.	5
Shelf life (in controlled environment), years	2
Packaging, comp. A+B, lt	2, 24

CURING SPEED

PRO-PRIME 213: Curing speed.			
	10 °C / 50 °F	20 °C / 68 °F	30 °C / 86 °F
Pot life ¹ , mins <i>diluted 2% for brush / roll application.</i>	240	90	60
Touch dry time, mins	120	90	30
Tack free, hrs	8	4	2
Hard dry / sandable, hrs	21	6	4

[Determined in controlled laboratory conditions. To be used as a guide only.]

¹ Pot life is indicative for a mix with 2% EPO-THIN 101 for brush / roller application, as stated above. Thinning at a higher percentage, within the range given below, will extend pot life.]

RECOAT AND OVERCOAT TIMES

Quick notes:

- Recoat and overcoat without fairing after the current coat is well into the touch dry phase and up to 7 days.

PRO-PRIME 213 may be overcoated with:

- itself,
- PRO-FILL series / epoxy fillers,

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- any top-coat,
- Antifouling coatings, and tie coats for 1K / silicon / Teflon based antifouling.

Use the following table as a guide for recoating / overcoating times.

PRO-PRIME 213: Recoat / overcoat times.						
	10 °C / 50 °F		20 °C / 68 °F		30 °C / 86 °F	
	min	max	min	max	min	max
Recoat/overcoat window, hrs	3	7 days	2	7 days	1	7 days

CONSUMPTION

Quick notes:

- Roll: 10 m²/lt.
- Spray: 13 m²/lt.

- **Roll / brush application**

@ 3% EPO-THIN 101 / T1.1 / T1.4: WFT 130 (DFT 90) microns, 10 m²/lt.

- **Spray application**

@ 30% EPO-THIN 201 / T1.4 / T1.7: WFT 120 (DFT 80) microns, 13 m²/lt.

@ 40% EPO-THIN 201 / T1.4 / T1.7: WFT 110 (DFT 70) microns, 14 m²/lt.

SURFACE PREPARATION

Quick notes:

- Clean grease/oil contaminants,
- fair at 180-400,
- clean using CLN-01.

Both preparation and application should be carried out in optimal conditions, namely temperature in the range of 10-30 °C (ambient, substrate and product) and normal humidity levels. Following application, if temperature drops, curing will proceed, even close to 0 °C, albeit at lower speeds.

Begin by ensuring that the substrate is dry. If grease/oil/wax/silicone type contaminants are present, they must be cleaned first using CLN-01. Next, fair at grade 180 to 400 and clean again using CLN-01.

If filling is required, it should be done after a first layer and overcoated by the remaining layers of primer.

MIXING

Quick notes:

- Stir each component well in its original container before preparing a mix.
- In higher temperatures, employ usual techniques to keep the mix cool and maintain its pot life.

Stir each component well, manually or mechanically at low rpm, before mixing. Do not let foaming develop as this will lead to faulty volume proportions. Using the indicative data given above, prepare quantities which you will comfortably have the time to apply within the pot life window. Mix the two components until a uniform consistency has emerged.

In the case where temperatures are above 25 °C, given the high speed of curing of the product, plan your mixing so as to have sufficient time to apply it within the working time. Namely, only mix small volumes and employ the usual techniques for keeping the mix cool.

Mix as follows:

PRO-PRIME 213: Mixing.		
Part	A	B
By volume	2	1
By weight	100	29

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THINNING

PRO-PRIME 213: Thinning / thinners.			
	by volume	by weight	DIN cup 4, sec
Moderate temperatures, < 20 °C / 68 °F			
T.1.4 (medium) Brush / roller application	2-4 %	1.2-3.6 %	85-40
EPO-THIN 201 / T1.7 (fast) Spray application	30-40 %	18.5-24.6 %	17-15
Higher temperatures, > 20 °C / 68 °F			
EPO-THIN 101 / T1.1 (slow) Brush / roller application	2-4 %	1.2-3.6 %	85-40
T.1.4 (medium) Spray application	30-40 %	18.5-24.6 %	17-15

APPLICATION

- **Roll / brush application**

Roll primer onto surface aiming for uniform coverage. You may tip using a good quality brush in order to make small corrections.

- **Spray application**

Use a 1.2 to 2.0 mm tip.

Spray pressure: 275-380KPA (40-55 psi).

CLEANING

Clean application equipment using CLN-01 or any of the thinners specified above.

PACKAGING

2 lt (1.33 + 0.66),

24 lt (16 + 8).

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STORAGE & SHELF LIFE

At least 24 months from the date of manufacture in the original sealed container. The ideal storage temperature is 10-25 °C at normal humidity levels.

SAFETY

Apply in well-ventilated spaces. Follow personal safety guidelines relating to epoxy products, including the use of proper mask and protective clothing. Avoid physical contact with the uncured substances.

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