industrial
anti-corrosion coatings
NOVOL

Technical Data Sheet

EP PRIMER 311

Epoxy Primer 1K

RELATED PRODUCTS

THIN 50 Universal solvent, slow, standard, fast

USE

- Epoxy Primer 1K is a free air-drying product. The primer is perfect as a base coat for steel, cast iron, galvanized steel and aluminium. The product exhibits very good adhesion and mechanical resistance.

PROPERTIES

- Professional anti-corrosion protection
- Short drying time

SUBSTRATES

Steel and cast iron	The steel/cast iron substrate shall be dry and free of oils, grease, dust, loose old coatings, milling scale, loose rust and foreign bodies. The surface shall exhibit bare metallic gloss. Mat smooth and shining metallic surfaces with P120 sand paper to produce sufficient substrate roughness.
Galvanized steel	Cure the galvanized substrates minimum 4 months prior to application. Degrease and gently mat with an abrasive finishing pad to produce a porous texture. Degrease again.
Aluminium	Degrease, mat with P240 to P320 sand paper and degrease again.
Old coatings	Mat and degrease. If the coating adheres poorly, remove it completely. Test coat a small area of the old coating. If the dry coat finish is unsatisfactory, remove the old coating completely and pretreat the substrate as instructed above.

Note: Dry sanding generates dust. Proper respiratory protection is recommended.

MIXING RATIO

Coating method	Product	Volume ratio	Weight ratio
Rollers or brushes	EP PRIMER 311	-	-
Pneumatic spraying	EP PRIMER 311 Universal solvent THIN 50	100 50%	100 37
Airless spraying	Anti-corrosion Epoxy Primer 1K Universal solvent THIN 50	100 30%	100 22

VISCOSITY

DIN 4/20°C Pneumatic spraying	22 - 24 s

COLOURS

Beige

VOC CONTENT

VOC II/B/c limit*	780 g/l
Actual VOC	695 g/l

* For ready to apply mixture acc. to EU Directive 2004/42/EC

APPLICATION CONDITIONS

- The substrate shall be dry.
- Min. product temperature: +10°C.
- The coat, coated surface and ambient temperatures must be between +5°C and +30°C.
- The relative humidity must not exceed 80%.
- Do not coat at high humidity (e.g. when rain, snow or fog is forecasted), on hot afternoons and/or in strong wind.

The application conditions determine the product layer drying time and the developed coating properties. The substrate temperature shall be 3°C higher than the ambient dew point or more.

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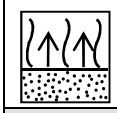
APPLICATION				
 **CAUTION:** Follow the equipment manufacturer's guidelines		Nozzle	Pressure	Distance
	Pneumatic spraying	1.3 - 1.5 mm	2 - 4 bar	15 - 20 cm
	Airless spraying in air jacket	0.28 - 0.33 mm (0.011" - 0.013 ")	100 - 120 bar Air jacket 2 bar	10 - 15 cm
	Brush	Natural bristle brushes or natural and synthetic bristle brushes are recommended.		
	Roller	Velour and mohair rollers are recommended.		
The spray application parameters depend on the individual performance and requirements of the tool and must be tested prior to coating. **Caution!** Verify that all corners and edges have been properly coated. Depending on the roller type, the coating may result with air bubbles which burst and form craters during drying.				
	Recommended number of layers	2 - 3 Apply in more layers on complex shapes to produce a homogeneous coating thickness.		
	Overall wet layer thickness	130 - 160 µm		
	Overall dry layer thickness	40 - 50 µm		
	The yield of the ready to use mixture for the given range of dry layer thickness	8.0 m^2/l at 50 µm		
	Flash-off time between layers	10 -15 min.		
	Time to recoat (with the enamel)	Recoat after 60 min.		
COATABILITY:				
Alkyd, polyvinyl, and chlorinated rubber enamel coats.				
TECHNICAL DATA				
Solids content by weight		49 - 53%		
Solids content by volume		30 - 34%		
Density		1.17 ÷ 1.25 g/cm^3		
Gloss (at 60°), PN-EN ISO 2813		10 - 20 (matt)		
Adhesion, PN-EN ISO 2409		0 – 1		
Water resistance, PN-EN ISO 2812-2		intermittent, not resistant to permanent submersion		
Chemical resistance		intermittent (splashes and sprays)		

DRY LEVELS		
	PN-C 81519	Time
Dust-free	Level 1	15 minutes
Tack-free	Level 3	30 minutes
Ending hardness	Level 6	2 hours
CAUTION: The drying time may vary with temperature and/or humidity.		

EQUIPMENT CLEANING
Universal thinner THIN 50 or NC solvent

STORAGE CONDITIONS
Store in a dry and cool room, away from sources of fire and heat at 5°C-25°C. Avoid exposure to sunlight.

SHELF LIFE	
EP PRIMER 311	12 months/20°C
Universal solvent THIN 50	24 months/20°C

SAFETY
See the Safety Data Sheet.

OTHER INFORMATION
Registration number: 000024104.
The effectiveness of our systems results from laboratory research and many years of experience. The data contained herein meets the current knowledge about our products and their application potential. We ensure high quality, provided the user follows the instructions and the work is performed in accordance with good workmanship. It is necessary to perform a test application of the product due to its potentially different reaction with different materials. We may not be held liable for defects if the final result was affected by factors beyond our control.