

Technical Data

Corro-Coat EP-F 4003



Jotun Protects Property

Product Description

Corro-Coat EP-F 4003 is a Fusion Bond Epoxy coating designed as an anti-corrosion coating for steel reinforcement bars. It is typically applied at 175 µm to 300 µm thickness.

Corro-Coat EP-F 4003 is normally applied in the temperature range of 230°C to 250°C (446°F to 482°F).

Corro-Coat EP-F 4003 is tested and approved by Valley Forge Testing Laboratories Inc.

Storage Conditions

A shelf life of at least 12 months is obtained when stored at maximum 25°C (77°F) with relative humidity of 65%. Do not exceed 33°C (91°F) during transport.

Typical Powder Properties

Description	Norm	Result
Gloss	60° angle	> 84%
Gel time	Hot plate method @ 180°C (356°F) @ 230°C (446°F) @ 250°C (482°F)	14 - 24 seconds 06 - 08 seconds 03 - 05 seconds
Density	Liquid displacement method	1.4 ± 0.05 g/cm ³
Particle size	Melvorn Laser Series 2600	14 - 16% > 90 µm 97% < 150 µm
Cure time	@ 230°C (446°F) @ 250°C (482°F)	60 seconds 52 seconds
Thermal characteristics	Mettler TA 3000 DSC20 Cell	Tg 1 = 62°C (144°F) ± 10% Tg 2 = 105°C (221°F) ± 10%
Hardness	ASTM D1474-68 Pencil (RP API 5L2)	> 16 7 H
Flexibility	ASTM 775 A bar No. 6, 180° 6" diameter Mandrel, 15 seconds	No Cracking
Cathodic disbondment*	ASTM G8-92 168 hours at 24°C (75°F)	< 4.0 mm radius average
Impact resistance	ASTM G14-72	No cracking, shattering or bond loss
Salt Spray resistance	ASTM B117 800 hours at 35°C (95°F)	2 - 3 mm

Chemical resistance	ASTM G20 45 days immersion @ 45°C (113°F) in distilled water, 3 molar calcium chloride, 3 molar sodium chloride, Saturated calcium hydroxide	No holidays No undercutting No blistering No loss of bond No softening
Bond strength	ASTM A944 Beam-end test	> 90% of uncoated bar strength 105.3 kN
Abrasion resistance	ASTM D4060 CS-10, 1000 g load 1000 cycles	26.4 mg loss
Chloride permeability	FHWA-RD-74-18 45 days @ 24°C (75°F)	1.4 x 10 ⁻⁵ M

* *The performance of the coating is based on substrates which have not been chemically pretreated.*

Note: The information on this Product Data Sheet is given to the best of the manufacturer's knowledge, based on laboratory testing and practical experience. However, as the product is often used under conditions beyond the manufacturer's control, only the quality of the product itself can be guaranteed. Jotun Powder Coatings reserves the right, without notice, to alter or change the content of this Product Data Sheet.

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