

Technical Data

Corro-Coat EP-F 2004



Jotun Protects Property

Product Description

Corro-Coat EP-F 2004 is a Fusion Bond Epoxy primer coat used in multilayer polyolefin pipe coating systems designed for higher operating temperatures. Corro-Coat EP-F 2004 is a novel coating characterized by high Tg and flexibility, typically applied at up to 500 µm (20 mil) thickness.

Corro-Coat EP-F 2004 is normally applied in the temperature range of 190°C to 250°C (374°F to 482°F).

Operating Conditions

Corro-Coat EP-F 2004 is suitable for operating at continuous temperatures up to 150°C (302°F) dependent on the other components of the multilayer polyolefin system.

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
Cure time	CSA-Z245.20-06 (12.1)	< 90 seconds
Gel time	CSA-Z245.20-06 (12.2)	18-26 seconds
Moisture content	CSA-Z245.20-06 (12.4B)	Below 0.50% (at time of manufacture)
Density	CSA-Z245.20-06 (12.6)	1330 ± 50 g/l
Particle size	CSA-Z245.20-06 (12.5)	99.5% below 250 µm (60 mesh)
Shelf life	@ 25°C (77°F) or cooler	12 months
Flexibility	CSA-Z245.20-06 (12.11) 3.0° PPD @ 0°C (32°F)	Pass
Strained polarization ^{A, D}	CSA-Z245.20-06 (12.13) 28 days	Pass/no cracking
Hardness	Shore D ASTM D2240-97	Average of 85
Impact resistance	CSA-Z245.20-06 (12.12)	> 1.5 J
Dielectric strength	ASTM D149-95	> 550v per 25 µm (1 mil)
Dielectric constant	ASTM D150-74	2.7 @ 1 MHz
Electrochemical impedance		Maximum 13.3 logZ ohms.cm ²

Thermal characteristics ^E	CSA-Z245.20-06 (12.7)	Tg 1 = 42-52°C (108-126°F) ^B Tg 2 = 142-157°C (288-315°F) ^C Delta H = 126-154 J/g
Adhesion ^{A, D}	CSA-Z245.20-06 (12.14) 75°C (167°F), 24 hours	Rating 1 or 2
Cathodic disbondment ^{A, D}	CSA-Z245.20-06 (12.8) 24 hours, 3.5v, 65°C (149°F) 28 days, 1.5v, 20°C (68°F) Modified CSA-Z245.20-06 (12.8) 48 hours, 1.5v, with steel temp 110°C (230°F)	2-3 mm radius average 3-4 mm radius average 3-4 mm radius average

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

^B Tg 1 may be difficult to measure due to masking peaks present in the same region.

^C A Tg 2 value of greater than 142°C (288°F) indicates adequate cure.

^D Based on 350 microns on 3 mm steel plate applied as a stand-alone FBE.

^E Powder DSC heating cycles: 25-70°C, 25-255°C, 25-190°C; Cured film DSC heating cycles: 25-160°C, 25-255°C, 25-190°C.

Recommended repair system

Jotun 120T640 two-component epoxy from Jotun Powder Coatings.

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.

Jotun Powder Coatings. Revised May 2011.

THIS PRODUCT DATA SHEET SUPERSEDES ALL PREVIOUSLY ISSUED VERSIONS.