Jotapipe LT 7011

PRODUCT DESCRIPTION

Jotapipe LT 7011 is a fusion-bonded epoxy coating designed as a stand-alone girth weld coating or as the first layer in a multi-coat a/c girth weld system. It can be applied at lower application temperatures either as a stand-alone coating or as a first layer in a multi-coat anti-corrosion girth weld system.

Operating conditions

This product can be suitable for pipelines operating at continuous temperatures up to 98 °C (208 °F) when properly applied. The product performance and the maximum operating temperature can depend on the coating system and the field conditions such as type of soil, moisture and salt content.

POWDER PROPERTIES

Property	Standard	Result
Cure time	CSA-Z245.20 (12.1) modified at 180 °C (356 °F)	Maximum 60 seconds
Gel time	CSA-Z245.20 (12.2) modified at 180 °C (356 °F)	5-14 seconds
Moisture content	CSA-Z245.20 (12.4B)	Below 0.50 % (at time of manufacture)
Particle size	CSA-Z245.20 (12.5)	3.0 % max retained on 150 µm (100 mesh) 0.2 % max retained on 250 µm (60 mesh)
Density	CSA-Z245.20 (12.6)	1420 ±50 g/l
Thermal characteristics	CSA-Z245.20 (12.7) Inflection point*	T_g1 = 46-70 °C (115-158 °F) T_g2 = 100-107 °C (212-225 °F) ΔH = 45-75 J/g

** Powder DSC heating cycles, 20°C/min: 30°-70°C (conditioning), 30°-250°C (Tg1 and ΔH), 30°-140°C (Tg2). Cured film DSC heating cycle, 20°C/min: 30°-110°C and hold for 1.5 min, 30°-250°C (Tg3), 30°-140°C (Tg4).*

Storage

Keep in a dry cool area. When stored at a maximum 25 °C (77 °F) and maximum relative humidity 60%, a shelf life of 6 months is obtained from the date of manufacture.

APPLICATION

Powder application

Application conditions depend on such factors as specification, plant capability and pipe characteristics.

Application conditions	Typical application temperature	Typical film thickness
As a stand-alone coating	170-210 °C (338-410 °F)	300 - 500 µm (12-20 mils)
As a primer in 3LPO	160-200 °C (320-392 °F)	150-500 µm (6-20 mils).

Please refer to the relevant Application Guide for guidelines on the factory application of this product.

PERFORMANCE

Property	Standard	Result
Cathodic disbondment	CSA-Z245.20 (12.8) 24 hours, -3.5 V, 65 °C (149 °F) 28 days, -1.5 V, 20 °C (68 °F) 28 days, -1.5 V, 65 °C (149 °F) 28 days, -1.5 V, 95 °C (203 °F)	 Average 2.5 mm disbondment Average 4.5 mm disbondment Average 5.5 mm disbondment Average 2.0 mm disbondment
Flexibility	CSA-Z245.20 (12.11) 3.0° PPD at -30 °C (-22 °F)	 Pass
Impact resistance	CSA-Z245.20 (12.12) at -30 °C (-22 °F)	 > 1.5 J
Strained polarization	CSA-Z245.20 (12.13) 28 days	 Pass / No cracking
Adhesion	CSA-Z245.20 (12.14) 24 hours, 75 °C (167 °F) 28 days, 75 °C (167 °F) 7 days, 95 °C (203 °F)	 Rating 1 < Rating 3 < Rating 2

The performance of the coating is based on 300-400 µm thick film applied as a stand-alone FBE on 6 mm steel plates which have not been chemically pretreated. These are typical results and should not be viewed as a product specification.

Jotapipe LT shall be considered sufficiently cured if both the following criteria are met:
1. ΔT_g < +2 °C. Negative value of ΔT_g is acceptable.
2. The percentage conversion, as determined by CSA Z245.20 is higher than 99 %.

Repair system

Jotapipe RC 490

Disclaimer

The information in this document is given to the best of Jotun's knowledge, based on laboratory testing and practical experience. Jotun's products are considered as semi-finished goods and as such, products are often used under conditions beyond Jotun's control. Jotun cannot guarantee anything but the quality of the product itself. Minor product variations may be implemented in order to comply with local requirements. Jotun reserves the right to change the given data without further notice.

Users should always consult Jotun for specific guidance on the general suitability of this product for their needs and specific application practices.

If there is any inconsistency between different language issues of this document, the English (United Kingdom) version will prevail.