

## Jotapipe AC 1003

### PRODUCT DESCRIPTION

This product is a fusion-bonded epoxy coating designed for use as a primer in multi-layer polyolefin systems. The product exhibits a wide application window.

### Operating conditions

This product is suitable for pipelines operating at continuous temperatures up to 98 °C (208 °F). However, product performance including maximum operating temperature can depend on plant application, pipe configuration, coating system and local field conditions.

### POWDER PROPERTIES

Property	Standard	Result
<b>Cure time</b>	CSA-Z245.20 (12.1) at 232 °C (450 °F) Jotapipe AC 1003 21S Jotapipe AC 1003 35S Jotapipe AC 1003 50S	Maximum 60 seconds Maximum 110 seconds Maximum 150 seconds
<b>Gel time</b>	CSA-Z245.20 (12.2) at 205 °C (400 °F) Jotapipe AC 1003 21S Jotapipe AC 1003 35S Jotapipe AC 1003 50S	18-24 seconds 27-40 seconds 42-58 seconds
<b>Moisture content</b>	CSA-Z245.20 (12.4B)	Maximum 0.50 % (at time of manufacture)
<b>Particle size</b>	CSA-Z245.20 (12.5)	3.0 % max retained on 150 µm (100 mesh) 0.2 % max retained on 250 µm (60 mesh)
<b>Density</b>	CSA-Z245.20 (12.6)	1450 ± 50 g/l
<b>Thermal characteristics</b>	CSA-Z245.20 (12.7)* Inflection point	T <sub>g1</sub> = 54-70 °C (129-158 °F) T <sub>g2</sub> = 98-110 °C (208-230 °F) ΔH = 30-65 J/g

\*Powder DSC heating cycles, 20 °C/min: 30-70 °C (conditioning), 30-270 °C (T<sub>g1</sub> and ΔH), 30-140 °C (T<sub>g2</sub>). Cured film DSC heating cycles, 20 °C/min: 30-110 °C and hold 1.5 min (conditioning), 30-270 °C (T<sub>g3</sub>), 30-140 °C (T<sub>g4</sub>).

### 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 12 months is obtained from the date of manufacture.

### APPLICATION

### Powder application

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

<b>As a primer in 3LPO</b>	205-240 °C (400-464 °F)	150-500 µm (6-20 mils)
----------------------------	-------------------------	------------------------

Evaluations show that thicker films can enhance service capabilities.

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

### PERFORMANCE

Property	Standard	Result
<b>Cathodic disbondment</b>	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)	3-5 mm radius average 3-5 mm radius average 3-5 mm radius average
<b>Flexibility</b>	CSA-Z245.20 (12.11) 3.0° PPD at -30 °C (-22 °F)	Pass
<b>Impact resistance</b>	CSA-Z245.20 (12.12) at -30 °C (-22 °F)	> 1.5 J
<b>Strained polarization</b>	CSA-Z245.20 (12.13) 28 days	Pass / No cracking
<b>Adhesion</b>	CSA-Z245.20 (12.14) 24 hours, 75 °C (167 °F) 28 days, 75 °C (167 °F)	Rating 1-2 Rating 1-2

*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.*

### 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.