

## Jotaguard RB 4003

### PRODUCT DESCRIPTION

This product is a fusion-bonded epoxy coating designed for corrosion protection of steel reinforcing bars. This product meets the requirements of ASTM A775 standard. The bond strength between steel and concrete is maintained when this coating is used as proven by independent third-party testing houses.

### POWDER PROPERTIES

Property	Standard	Result
<b>Cure time</b>	CSA-Z245.20 (12.1) 240 °C (464 °F)	< 30 seconds
<b>Gel time</b>	ISO 8130-6 annex A.3 200 °C (392 °F)	8-22 seconds
<b>Moisture content</b>	CSA-Z245.20 (12.4.2 Procedure B)	Below 0.50 % (at time of manufacture)
<b>Particle size</b>	ISO 8130-1	3.0 % max retained on 150 µm (100 mesh) 0.2 % max retained on 250 µm (60 mesh)
<b>Density</b>	ISO 8130-3	1400 ± 50 g/l

### 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 can be obtained from the date of manufacture.

### APPLICATION

#### Powder application

Application conditions	Typical application temperature	Typical film thickness
<b>Typical application</b>	230-250 °C (446-482 °F )	175-300 µm (7-12 mils)
<b>Typical geltime</b>	at 240°C (464°F)	3 - 5 seconds

### PERFORMANCE

Property	Standard	Result
<b>Flexibility</b>	ASTM A775 (8.3) Bar No. 6, 180°, 6" mandrel (Bar No. 19, 180°, 150mm mandrel) between 20-30°C	No cracking
<b>Impact resistance</b>	ASTM A775 (A1.3.9) on 6mm steel plate	9J No cracking, shattering and bond loss
<b>Cathodic disbondment</b>	ASTM G8 168 hours at 24 °C (75 °F)	< 4.0 mm radius average

<b>Salt spray resistance</b>	ASTM B117 800 hours at 35 °C (95 °F)	2 - 3 mm
<b>Chemical resistance</b>	ASTM A775-17 45 days immersion at 24 ± 2 °C (75 °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
<b>Bond strength</b>	ASTM A944 Beam-end test	> 90 % of uncoated bar
<b>Abrasion resistance</b>	ASTM D4060 CS-10, 1000 g load 1000 cycles	26.4 mg loss
<b>Chloride permeability</b>	ASTM A775-17 45 days at 24 °C (75 °F)	1.4 x 10 <sup>-5</sup> M

\* The performance of the coating is based on 175-300 µm thick film applied on 6 mm steel plates which have not been chemically pretreated.

### Repair system

Jotamastic 90 / Polyguard 85

### Sustainability

Powder coating is applied in air-and-powder mix in a strictly controlled factory process using electrostatic gun and a high temperature curing oven to create film. Virtually no VOCs are released in the process compared to traditional liquid paints. Unused or oversprayed powder can be recycled with minimal wastage. In addition, all Jotun Powder Coatings' products do not contain intentionally added lead.

### 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.