Jotun Super Durable 2003

PRODUCT DESCRIPTION

This lead-free TGIC powder coating is specifically designed to meet stringent requirements of the construction industry. It provides longevity to the projects and building components by ensuring high levels of gloss retention, colour stability and corrosion protection along with aesthetic performance. This powder enables efficient application and provides uniform flow and attractive finish even after recycling. This product is certified according to Qualicoat Class 2 and has weathering performance in line with AAMA 2604. This product is available in the following collections: Cool Shades Collection

Application areas

These products are highly recommended to meet gloss retention and colour stability requirements. Primary areas of application are architectural aluminium extrusions and claddings. Other substrates may be used. Please consult your local Jotun Powder sales representative.

When screen printing or sealants are used, it is advised to run separate trials to ensure compatibility and to meet the required performance criteria.

POWDER PROPERTIES

Property	Standard	Result
Specific gravity	Calculated	Max. 1.5 g/cm^3

Storage

Keep in a dry cool area. Maximum temperature 25 °C. Maximum relative humidity 60 %. If stored longer than 12 months a quality test must be performed.

APPLICATION

Pretreatment

The overall performance of the coating system is largely dependent on the nature of the substrate and the type and quality of the pretreatment. For optimal results, it is recommended to follow the pretreatment supplier's instructions and recommendations.

The recommended types of pretreatment for the most frequently used substrates are:

Substrate	Pretreatment
Aluminium	Chromate conversion
Final rinse (deionized)	The last running water from the object should be tested at 20 °C. The readings obtained should measure below 30 µS/cm.

Suitable chrome-free pretreatment for aluminium is also recommended. Due to the variety of chrome-free pretreatments available today, only the approved systems from Qualicoat and GSB should be used. Detailed advice should be sought from the pretreatment supplier.

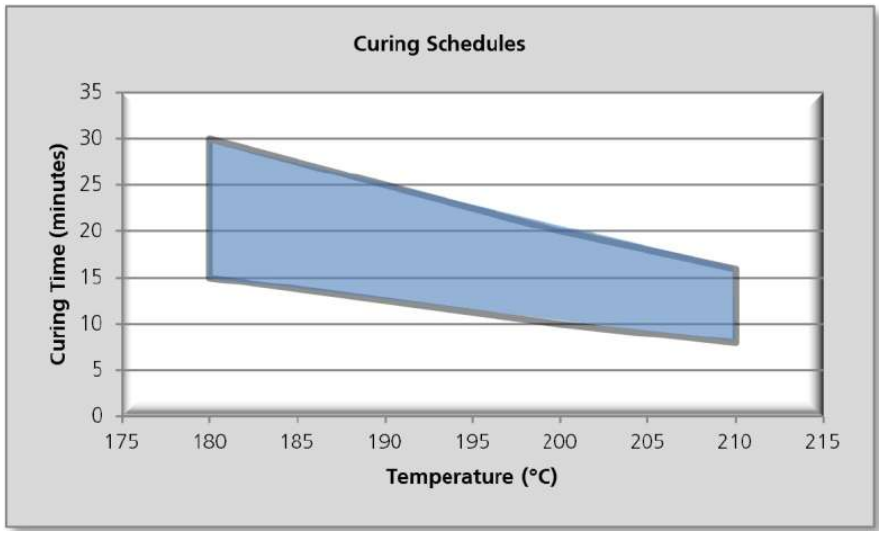
This Technical Data Sheet supersedes those previously issued.

The Technical Data Sheet (TDS) is recommended to be read in conjunction with the Safety Data Sheet (SDS) and the Application Guide (AG) for this product. For your nearest local Jotun office, please visit our website at www.jotun.com

Powder application

Recommended film thickness (µm): 60-80

Curing



Equipment

Suitable for Corona or Tribo charging equipment.

APPEARANCE

Colour	Selected range of RAL colours. Other colours can be custom-made upon request.	
Gloss	EN ISO 2813 (60°)	35±7
Finish	Smooth	

If the significant surface is too small or unsuitable for the gloss to be measured with the glossmeter, the gloss should be compared visually with the reference sample (from the same viewing angle).

Gloss measurements of metallic effect coatings can show deviation from original levels specified in this document and visual comparison with the reference sample is recommended.
Gloss range used in TDS and on the label of the metallic effect coatings represents gloss of the base and not of the final finish.

PERFORMANCE

The technical data provided below are typical for this product when applied as follows:

Substrate	Chrome-free treated aluminium panels
Substrate thickness (mm)	0.8
Film thickness (µm)	60-80

Typical values when tested.

Property	Standard	Result
Adhesion	EN ISO 2409	Cross-cut rating Gt0 (100 % adhesion)
Impact resistance*	EN ISO 6272 /ASTM D2794 (impactor diameter 15.9 mm)	Passes 2.5 Nm without detachment after tape pull test.

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Cupping test*	EN ISO 1520	Passes 5 mm indentation without detachment after tape pull test.
Flexibility*	EN ISO 1519	Passes 5 mm cylindrical mandrel bend test without detachment after tape pull test.
Film hardness	EN ISO 2815	Indentation resistance according to Buchholz: >80
Mortar resistance	EN 12206-1	The mortar must be easy to remove without leaving any residues.
Drilling, milling and sawing test		No flaking of coating.
Humidity resistance containing SO_2.	ISO 22479 Method B (0.2 I SO_2) ISO 4628-2	No infiltration exceeding 1 mm on both sides of the scratch after 24 cycles.
Humidity resistance	EN ISO 6270-2 ISO 4628-2	No infiltration exceeding 1 mm on both sides of the scratch after 1000 hours
Acetic acid salt spray resistance	ISO 9227 ISO 4628-2	After 1000 hours testing – maximum 16 mm² infiltration over a scratch length of 10 cm.
Accelerated weathering	ISO 16474-3	Cycle: 4 hours at 50 ºC UV and 4 hours at 40 ºC condensation. No chalking, excellent gloss retention and colour stability after 600 hours testing.
Xenon Arc Accelerated Weathering	ISO 16474-2 Method A	Cycle: 102 minutes dry at 38 °C and 18 minutes water spray under UV. No chalking, excellent gloss retention and colour stability after 1000 hours testing.
Natural weathering test	ISO 2810 (South Florida, 27 ºN)	No chalking, excellent gloss retention and colour stability after 36 months exposure (angle of 5 º to South).
Smoke Development Index	ASTM E84	Class 1 or A
Flame Spread Index	ASTM E84	Class 1 or A
Fire classification†	EN 13501-1	Class A2-s1, d0
Total Solar Reflectance**	ASTM C1549 ASTM G173	Series 2003R: TSR ≥ 25%

** According to Qualicoat Class 2 test procedures.*
*** Only applicable for the colours featured in 'The Cool Shades Collection'. †Jotun Super Durable 2903 RAL 9006 coated test specimens were tested at a DFT of 60-90 microns.*

Approvals

This product is certified according to Qualicoat Class 2 and has weathering performance in line with AAMA 2604.
Qualicoat: P-1549 (AE), P-1428 (SA), P-1562 (TR), P-1721 (ID), P-1728 (TH)

Additional information

This product may be backed by a 25-year Product Performance Guarantee when applied on extruded architectural aluminum substrate. For further information please contact your local Jotun representative.

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.

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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.

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