Technical Datasheet

INTERPON D2525 LOW-E GLOSS

Superdurable polyester powder coatings with low-cure conditions

Product description

Interpon D2525 Low-E Gloss is a series of ultra-durable powder coatings specifically formulated without TGIC, intended for use on architectural aluminium and galvanized steel. Providing new levels of weathering resistance Interpon D2525 Low-E Gloss surpasses the performance of leading architectural powders. It offers significantly higher gloss retention and resistance to colour change combined with maximum film integrity to ensure long term cosmetic and functional protection and comes with the benefit of energy saving.
These powder coatings are classified in Family I – class 6c under standard NFT 36-005.
Interpon D2525 Low-E Gloss meets the requirements of Qualicoat Class 2, GSB Florida 3, EN 12206 (formerly BS6496), EN13438 (formerly BS6497:1984).
Some colours may not be available in Interpon D2525 Low-E Gloss.
Following RAL shades are excluded from the RAL families for Qualicoat Class 2: RAL 1003, 1028, 1033, 2004, 2011, 3015, 3017, 3018, 4001.

Approvals

Qualicoat Approval	P-2074 (TR) P-2067 (CZ) P-1959 (IT) P-2097 (FR) P-2084 (ES) P-2111 (GB)
GSB Approval	183j (gloss 85)
Resistance to Fire Approval	Classification: A2,s1,d0 with film thickness up to 120 µm (generic polyester D1036, D2525) according to EN13501-1

Powder properties

	Typical value
Chemical Type	Polyester
Appearance	Smooth Gloss
Density	1.2 - 1.9 g/cm³, depending on colour
Gloss (60°)	80 - 90 GU
Shelf life	24 months below 30 °C 12 months below 35 °C
Storage Conditions	Under dry, cool (≤ 30°C) conditions (open boxes must be resealed)
Curing schedule	25 - 40 min at 150°C 15 - 30 min at 160°C 8 - 20 min at 170°C (object temperature)

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Pre-treatment

For maximum protection it is essential to pretreat components prior to the application of the powdercoating.
Aluminium components should receive a full multi-stage chromate conversion coating or suitable chrome-free pre-treatment or suitable pre-anodising to clean and condition the substrate. Detailed advice should be sought from the pre-treatment supplier.
Galvanised steel requires surface preparation by either multi-stage pretreatment using either zinc phosphate or chromate conversion or controlled sweep blasting. Depending on the type of galvanizing, degassing or use of anti-bubbling additives may be required – follow the procedural advice of the pretreatment supplier.
The products may also be used on cast or mild steel. For outdoor use Interpon Redox PZ anti-corrosive primer over a correctly prepared substrate is recommended.

Application

Powders can be applied by manual or automatic electrostatic spray equipment.
This product should be applied at minimum 60µm.
All powders can show small color differences from batch to batch, this is normal and unavoidable.
Bonded products have better application properties than blended products (more stable) but attention should still be paid to line settings in order to avoid “marble effect” and changes in aspect after recycling.
Products with different codes should not be mixed even if same colour and gloss.
While AkzoNobel take every precaution to minimize visible differences, this cannot be guaranteed.
Applicators and fabricators are advised to use a single batch for parts that will be assembled together. Differences are more likely with special effect powders.
For more information, it is suggested to read the Metallic Applications Guidelines.

Application Method	Electrostatic
Recycling	A constant ratio between virgin and recycled powders should be fixed by the coater in order to achieve a consistent effect following the AkzoNobel rules. Please consult AkzoNobel for further details as to the correct mixing ratio for virgin/reclaim powder. For solid shades, unused powder can be reclaimed Unused powder can be reclaimed using suitable equipment and recycled through the coating system, but a minimum of 70% virgin powder should be used.

Post application

For specific advice on the suitability of post coating processes such as bending or the use of sealants, adhesives, thermal break, cleaning etc. Please consult AkzoNobel.

Test conditions

The results are based on mechanical and chemical tests which (unless otherwise indicated) have been carried out under laboratory conditions and are given for guidance only
Testing has been determined under laboratory conditions using the following application properties and is for guidance only.

Pre-treatment	Chrome free Qualicoat/GSB approved pretreatment
Substrate	Aluminum (0.5-0.8 mm Al Mg1)
Curing schedule	25 min at 150°C (object temperature)
Film Thickness	60 - 80µm, ISO 2360

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Mechanical tests

	Typical value	Method/standard
Adhesion	Class 0	ISO 2409 (2 mm Crosshatch)
Erichsen cupping	Pass Qualicoat class 2 requirements	ISO 1520
Flexibility	Pass Qualicoat class 2 requirements	ISO 1519
Hardness	>80	ISO 2815 (Buchholz hardness)
Impact resistance	Pass Qualicoat class 2 requirements	ISO 6272-2 (d/r)

Chemical and durability tests

	Typical value	Method/standard
Chemical Resistance	Generally good resistance to acid, alkalis and oil at room temperatures.	
Sulphur Dioxide Resistance	Pass 24 cycles– no blistering, loss of gloss or discoloration	ISO 22479

Environmental and durability tests

	Typical value	Method/standard
Accelerated weathering	≥90% Gloss retention, 1000 h	ISO16474-2
	≥50% Gloss retention, 600 h	ISO 16474-3 QUV B 313 (GSB)
Acetic acid salt spray	No blistering in excess of 2 (S2) according to ISO 4628-2. Infiltration <16 mm2 /10 cm, length of any single infiltration shall not exceed 3 mm., 1000 h	ISO 9227
Humidity	No blistering in excess of 2 (S2) according to ISO 4628-2; the maximum infiltration at the cross is 1 mm, 1000 h	ISO 6270-2 CH (Constant humidity)
Exterior durability	Chalking – none in excess of minimum in ASTM D4214 Meets Qualicoat class 2 requirements after 3 years of Florida exposure Meet AAMA 2604 requirements after 5 years of Florida exposure	ISO 2810
Mortar resistance	No effect after 24 hours	EN 12206-1
Wet adhesion	No sign of detachment or blistering. Cross-cut value 0. Colour change is acceptable.	Qualicoat/GSB

Maintenance

For specific advice on Cleaning and Maintenance, please consult the Interpon D series Cleaning and Maintenance Guidelines available from AkzoNobel.

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Safety Precautions

This product is intended for use only by professional applicators in industrial environments and should not be used without reference to the relevant health and safety data sheet which Akzo Nobel has provided to its customers.

Disclaimer

IMPORTANT NOTE: The information in this data sheet is not intended to be exhaustive and is based on the present state of our knowledge and on current laws: any person using the product for any purpose other than that specifically recommended in the technical data sheet without first obtaining written confirmation from us as to the suitability of the product for the intended purpose does so at his own risk. It is always the responsibility of the user to take all necessary steps to fulfil the demands set out in the local rules and legislation. Always read the Material Data Sheet and the Technical Data Sheet for this product if available. All advice we give or any statement made about the product by us (whether in this data sheet or otherwise) is correct to the best of our knowledge but we have no control over the quality or the condition of the substrate or the many factors affecting the use and application of the product.

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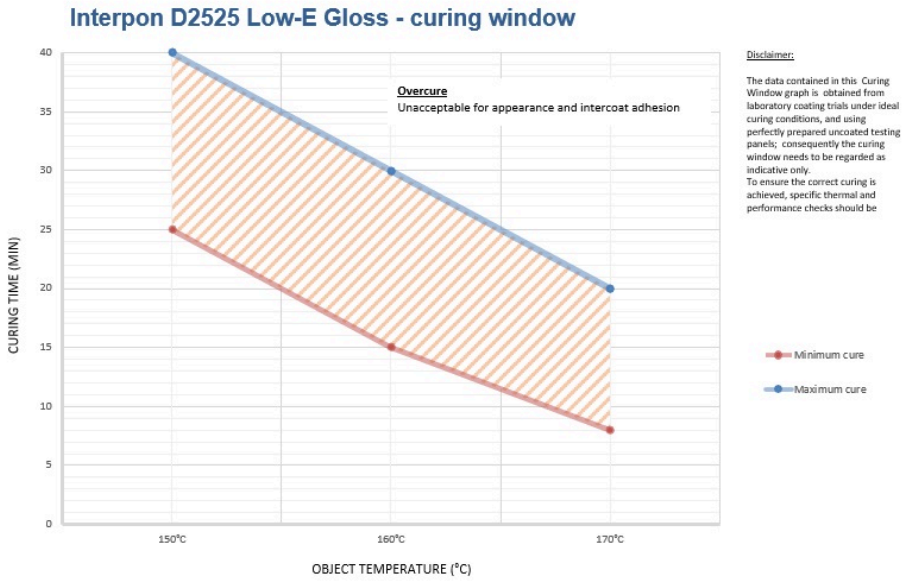
Appendix

Curing Window



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