Technical Datasheet

INTERPON D2525 BRILLIANCE

Superdurable polyester powder coatings with metallic finish

Product description

Interpon D2525 Brilliance 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 Brilliance** 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.
These powder coatings are classified in Family I – class 6c under standard NFT 36-005.
The Interpon D2525 Brilliance series being part of Interpon D2525 range is awarded the prestigious Qualicoat Class 2 approval for ultra-durable architectural powder coatings and conforms to the requirements of EN12206 and EN13438 (high durability systems), GSB Master and AAMA 2604.

Some colours may not be available in Interpon D2525 Matt.
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-1210 (FR) P-1212 (IT) P-1512 (TR) P-1201 (UK) P-1673 (CZ) P-1244 (EG) P-1844 (RU) under the brand Interpon D2525 Matt
GSB Approval	183b (gloss 25)
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
Density	1.2 - 1.9 g/cm³, depending on colour
Gloss (60°)	25 - 35 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	15 - 35 min at 180°C 12 -25 min at 190°C 10 -20 min at 200°C (object temperature)

Revision Date: V10, 08.10.2024
Region: EMEA

Technical Datasheet

INTERPON D2525 BRILLIANCE

Superdurable polyester powder coatings with metallic finish

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.
All powders can show small color differences from batch to batch, this is normal and unavoidable.
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.

We recommend the use of flat jet spray nozzles.
The use of direct box feed equipment may not reproduce fully the finish of our color standard. The use of direct feed equipment, by pumping into the box, may not fully reproduce the expected rendering of our standard color. This equipment could be responsible for a heterogeneity of surface aspect (marble aspect). To ensure homogeneity of the finish, completely empty the contents of the box in a fluidized bin.
Only one pass and one batch should be used for items that will be simultaneously visible after assembly/installation. For manual application it is essential to ensure that a uniform film thickness is applied.
Unused powder can be recovered and recycled on most common equipment subject to normal controls on ratios of recycled to virgin powder. AkzoNobel should be consulted for specific recommendations on recycle ratios for this product, but in any circumstances the recycled virgin ratio should not exceed 1/5.
Different substrates (aluminium, steel, galvanized steel…), use of primer, and big changes in film thickness may give a different aspect (marble aspect).
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. A constant ratio between virgin and recycled powders should be fixed by the coater in order to achieve a consistent effect.
For more details it is suggested to read the ‘Guideline- Application of Metallic and Effect Powder Coatings Brilliance section’.
Products with different codes should not be mixed even if same colour and gloss.

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.

Revision Date: V10, 08.10.2024
Region: EMEA

Technical Datasheet

INTERPON D2525 BRILLIANCE

Superdurable polyester powder coatings with metallic finish

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	10 min at 200°C (object temperature)
Film Thickness	60 - 80µm, ISO 2360

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

Revision Date: V10, 08.10.2024
Region: EMEA

Technical Datasheet

INTERPON D2525 BRILLIANCE

Superdurable polyester powder coatings with metallic finish

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.

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

Revision Date: V10, 08.10.2024

Region: EMEA

Technical Datasheet

INTERPON D2525 BRILLIANCE

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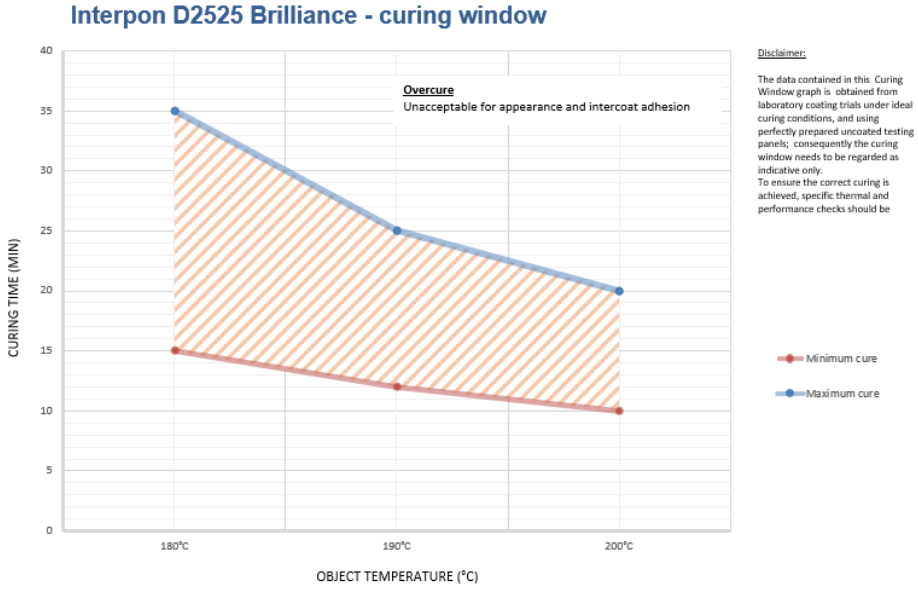
Appendix

Curing window



Revision Date: V10, 08.10.2024
Region: EMEA