



BU Powder Coatings

D-Brilliance Interpon D1036

Product Description

D-Brilliance is a range of bonded bright metallic powder coatings intended for use on architectural aluminium and galvanised steel. As part of the **Interpon D1036** series of architectural powders, **D-Brilliance** gives excellent exterior durability and colour retention and conforms to the requirements of all the major European architectural finishing standards. All **Interpon D1036** powders are TGIC-free, lead-free and meet the requirements of GSB, Qualicoat Class 1, BS EN12206 (formerly BS6496) and BS EN13438 (formerly BS6497).

Powder Properties

Chemical type	Polyester TGIC-free
Gloss	30 Gloss unit ± 5
Particle Size	Suitable for electrostatic spray
Density	$1.400 \pm 0.100 \text{ g/cm}^3$
Storage	Dry cool conditions under 35°C
Shelf life	12 months
MSDS	PC530
Sales Code	G-series
Stoving schedule	10min at 200°C (object temperature)

Test Condition

The results shown below are based on mechanical and chemical tests which (unless otherwise indicated) have been carried out under laboratory conditions and are given for guidance only. Actual product performance will depend upon the circumstances under which the product is used.

Substrate	Aluminum (0,5-0,8 mm Al Mg1)
Pretreatment	Chromate
Film Thickness	75 ± 5 microns
Stoving	$10'/200^\circ\text{C}$ (object temperature)

Mechanical Tests

Adhesion	ISO 2409	Gt0 (2mm crosshatch)
Erichsen Cupping	ISO 1520	Pass ≥ 5 mm
Hardness	ISO 2815 (Buchholz)	≥ 80
Impact	ASTM D2794 Direct and Reverse	≥ 2.5 joules or ≥ 20 inch* pounds
Flexibility	ISO 1519	Pass 5mm

Chemical and Durability Tests

Salt Spray	ISO 7253 (1000 hours)	Pass – No corrosion creep more than 2 mm from scribe
Acetic Acid Salt Spray	ISO 9227 (1000 hours)	Pass- $<16\text{mm}^2$ corrosion/10cm
Constant Humidity	ISO 6270 (1000 hours)	Pass – No blistering or loss of gloss

Sulphur Dioxide	ISO 3231 (Kesternich)	Pass – No blistering & creep < 1mm from scribe after 30 cycles
Permeability	Pressure Cooker EN12206-1:2004 Part 5.10	Pass- No defects after 1 hour (2 hours boiling water)
Chemical Resistance		Generally good resistance to dilute acids, alkalis and oils at normal temperatures.
Mortar Resistance	EN12206-1:2004 Part 5.9	No effect after 24 hours
Exterior Durability	ISO2810 (12 months Florida 5'S)	≥%50 Gloss retention. Color retention in accordance with GSB or Qualicoat. Chalking - none in excess of minimum in ASTM D659:1980
Accelerated Weathering Test	ISO11341 (Suntest Original-Hanau-Quartzlampen)	≥ 50% Gloss retention after 1000 hours.
	QUV B313	≥50% Gloss retention after 300 hours
Light Fastness	DIN54004	Minimum 7

Pretreatment

For maximum protection it is essential to pretreat architectural components prior to the application of **D-Brilliance** powder coatings. Aluminium components should receive a full multi-stage chromate conversion coating or a suitable chrome-free pretreatment to clean and condition the substrate. Detailed advice should be sought from the pretreatment 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 galvanising, degassing or use of anti-bubbling additives may be required - follow the procedural advice of the pretreatment supplier.

D-Brilliance products may also be used on cast or mild steel. For outdoor use **Interpon PZ** anti-corrosive primer over a correctly prepared substrate is recommended.

Application

D-Brilliance powders can be applied by manual or automatic electrostatic spray equipment. It is recommended powder film thickness to be between 70 – 100 microns. 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. To ensure powder homogeneity, empty the boxes totally into the tray or feed hopper. Only one spray run and one batch should be used for components that are going to be simultaneously visible following assembly/fabrication. For manual application it is essential to ensure that an even 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. Akzo Nobel 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. For more details refer to **D-Brilliance** Application Guidelines.

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 Akzo Nobel.

Safety Preacutions

When using do not eat, drink or smoke. Do not breathe the dust. In case of insufficient ventilation wear suitable respiratory equipment. For further information please refer to the specific product Material Safety Data Sheet (PC530).

Disclaimer

The information given in this sheet is not intended to be exhaustive and any person using the product for any purpose other than that specifically recommended in this sheet without first obtaining written conformation from us as to the suitability of the product for the intended purpose does so at his own risk. Whilst we endeavour to ensure that all advice we give about the product (whether in this sheet or otherwise) is correct we have no control over either the quality or condition of the substrate or the many factors affecting the use and application of the product. Therefore, unless we specifically agree in writing to do so, we do not accept any liability whatsoever or howsoever arising for the performance of the product or for any loss or damage (other than death or personal injury resulting from our negligence) arising out of the use of the product. The information contained in this sheet is liable to modification from time to time in the light of experience and our policy of continuous product development.