

Product Data Sheet

AkzoNobel Powder Coatings

Interpon Flat Matt

Product Description

Interpon Flat Matt is a series of advanced durability powder coatings specifically designed to give a low gloss "anodised" appearance on architectural aluminium components. Providing outstanding weathering resistance, **Interpon Flat Matt** typically exceeds the requirements of AAMA2604 and surpasses the performance of all leading architectural powder coatings. **Interpon Flat Matt** is designed to offer significantly higher gloss retention and resistance to colour change combined with maximum film integrity to ensure long term cosmetic and functional protection. **Interpon Flat Matt** powder coatings are available in a selected range of colours and pearlescent effects in a low gloss matt finish.

Powder Properties*

Chemical type	Polyester
Particle size	Suitable for electrostatic spray
Specific gravity	1.2 - 1.7 depending on colours
Storage	Dry cool conditions (below 25°C)
Shelf Life	12 months
Gloss	Approx 5 – 15% (depending on product)
Sales code	Y and G -Series
Stoving Schedule	10 mins at 180°C (metal temperature) 7 mins at 190°C 5 mins at 200°C

Note: The stoving schedules given above will result in gloss levels of approx. 5-15% depending on product. Do not exceed 200°C for optimum performance.

Film properties

Mechanical and chemical tests carried out on chromated aluminium panels. All tests are performed on panels coated with 60 to 80 microns of powder coating stoved for 5 minutes at 200°C (metal temperature). **Interpon Flat Matt** powder coatings are designed to exceed the requirements of AAMA2604.

Mechanical Tests*

Dry Adhesion	AAMA2604 Clause 7.4	Pass – no removal of film
Impact resistance	AAMA2604 Clause 7.5	Pass – no tape removal of film following 0.1" deformation
Dry Film hardness	ISO2815 (Buchholz)	Pass
Abrasion resistance	AAMA2604 Clause 7.6	Pass – abrasion coefficient >20

Chemical Durability Tests*

Salt Spray	AAMA2604 Clause 7.8.2 ASTM B117 at 35°C D1654	Pass at 3000 hrs – no corrosion >1-2 mm from scribe Minimum blister rating 8
Constant Humidity Resistance	AAMA2604 Clause 7.8.1	Pass at 3000 hrs – blister formation < "few" size no 8
Permeability	AS3715 2002	Pass
Sulphur Dioxide	ISO3231 (Kesternich)	Pass - no blistering, loss of gloss or discolouration.
Chemical Resistance		Generally good resistance to acids, alkalis and oils at normal temperatures
Exterior durability	5 years Florida exposure AAMA 2604	Excellent performance, Colour change ΔE <5, gloss retention >30% Chalking - no > no.8 ASTM D4214 - D659
Colour stability at elevated temps		Excellent for continuous exposure up to 120°C

Pre-treatment

For maximum protection it is essential to pretreat components prior to the application of **Interpon Flat Matt** in accordance with the Interpon D Approved Applicators Manual. Aluminium components must receive a full multi-stage chromate conversion coating or suitable chrome⁶-free pre-treatment to clean and condition the substrate. Detailed advice should be sought from the pretreatment supplier.

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Application

Interpon Flat Matt powder coatings can be applied by manual or automatic electrostatic spray equipment. We recommend using voltage at 70 KV and current at 20 Microamps. To ensure the highest consistency of metallic appearance the powder should always be applied from a fluidised hopper. Unused or over-sprayed powder coating can be reclaimed up to a maximum of 20% using suitable equipment and recycled through the coating system. Frequent, small additions of reclaim powder to the hopper are recommended.

Interpon Flat Matt powder coatings give a consistent low gloss appearance when cured according to the recommended cure schedule. Under or over curing the powder will result in loss of film integrity and/or change in gloss.

Additional Information

A 25-year film integrity / 15-year colour warranty is available to Interpon D Approved Applicators. For further information please contact your local Akzo Nobel sales office.

Interpon Flat Matt powder coatings as supplied by AkzoNobel contain no organic solvents and can contribute toward satisfying the IEQ credits in the following Green Star® rating tools:

IEQ11 Office Interiors v1.1	IEQ8 Education v1
IEQ13 Office Design v2	IEQ8 Retail Centre v1
IEQ13 Office As-Built v2	IEQ8 Healthcare v1
IEQ8 Multi Unit Residential v1	IEQ8 Industrial v1

Note: Products are not reviewed or certified under the Green Star® rating system. Green Star® credit requirements cover the performance of materials in aggregate, not the performance of individual products or brands. For more information on Green Star®, visit www.gbca.org.au.



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 AkzoNobel has provided to its customer. If for any reason a copy of the relevant health and safety data sheet is not immediately available the user should contact AkzoNobel to obtain a copy before using the product. Minimum safety precautions in dealing with all powder coatings are as follows. All dusts are respiratory irritants. Therefore, inhalation of the dust or of the vapors resulting from the cure should be avoided. Take steps to prevent skin contact, but should contact occur, wash skin with soap and water. In case of eye contact flush immediately with clean water and seek medical advice. Dust clouds of any finely divided organic material can be ignited with an electric spark or open flame. Dust and powder should not be allowed to build up on surfaces or ledges. Dust collection equipment should be used which has provision for adequate explosion release. All equipment should be electrically earthed to prevent build up of static. Users are recommended to follow the guidelines laid down in AS3754:1990, "Safe Application of Powder Coatings by Electrostatic Spraying".

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 fulfill 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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* Typical minimum specifications. Performance may vary slightly between individual products.

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