

Product Data Sheet

AkzoNobel Powder Coatings

Interpon D3020 Fluoromax® Gen II

Product Description

Interpon D3020 Fluoromax® Gen II is a series of hyper-durable powder coatings designed to meet the requirements of AAMA2605, the most demanding architectural specification in the world. AkzoNobel's Fluoromax® Gen II technology uses innovative fluorocarbon polymer chemistry that is designed to provide maximum gloss and colour retention in service. **Interpon D3020 Fluoromax® Gen II** is also designed to provide excellent cosmetic and functional protection whilst exploiting the recognised benefits of powder coatings. **Interpon D3020 Fluoromax® Gen II** is a technically and environmentally benign alternative to liquid PVF2 systems. **Interpon D3020 Fluoromax® Gen II** is available in a selected range of colours and pearlescent effects and in a subtle low sheen finish.

Powder Properties*

Appearance	Smooth Matt
Gloss level	20 – 40 gloss units (60°)
Particle size	Suitable for electrostatic spray
Specific gravity	1.2-1.7 g/cm ³ depending on colour
Storage	Dry cool conditions below 25°C
Shelf Life	18 months below 25°C
Sales code	8 series
Stoving Schedule	30 - 40 minutes at 190°C or 20 - 30 minutes at 200°C or 15 - 25 minutes at 210°C (object temperature) Do not cure above 210°C

Test Conditions:

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	Aluminium
Pretreatment	Chromate / Chrome Free
Film Thickness	50 – 80 microns (white / light colours to be sprayed at thicker end of spec)
Stoving	20 minutes at 200°C (metal temperature)

Mechanical Tests*

Dry Adhesion	AAMA2605 8.4	Pass – no removal of film
Impact Resistance	AAMA2605 8.5	Pass - no tape removal of film from substrate following 3mm deformation
Dry Film Hardness	ISO2815 (Buchholz)	Pass
Abrasion Resistance	AAMA2605-13 8.6	Pass – abrasion coefficient >40

Chemical Durability Tests*

Salt Spray	AAMA2605 8.8.2	Pass at 2000 hours – ASTM G85 Pass at 4000 hours – ASTM B117 No corrosion more than 2.0mm from scribe Minimum blister rating 8
Constant Humidity Resistance	AAMA2605 8.8.1 ASTM D2247	Pass at 4000 hours – blister formation Less than “few”
Permeability	AS3715	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	10 years Florida exposure AAMA2605-13 8.9	Excellent performance - Colour change Delta E <5, gloss retention >50% Chalking - none in excess of No.8

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Pre-treatment

For maximum protection it is essential to pre-treat components prior to the application of **Interpon D3020 Fluoromax® Gen II** in accordance with the Interpon D Approved Applicator Manual. Aluminium components must receive a full multi-stage chromate conversion coating or suitable chrome-free pre-treatment to clean and condition the substrate. Detailed advice should be sought from the pre-treatment supplier.

Application - General

Interpon D3020 Fluoromax® Gen II can be applied by manual or automatic electrostatic spray equipment. For solid shades, unused powder can be reclaimed using suitable equipment and recycled through the coating system. For mixed colours and certain special finishes, advice must be sought from Akzo Nobel as to the suitability or otherwise of the product for recycling.

Interpon D3020 Fluoromax® Gen II is slightly incompatible with other powder coatings. It is therefore recommended to thoroughly clean the entire coating line prior to and after the powder application.

Interpon D3020 Fluoromax® Gen II releases a blocking agent during the curing process. This blocking agent will cause slight fuming and requires increased levels of oven venting.

Metal temperature should not reach above 210°C, and 50-80µm DFT must be maintained to avoid blistering of the coating caused by buildup of trapped blocking agent released during the curing process.

Interpon D3020 Fluoromax® Gen II is based on fluorocarbon polymer chemistry hence it will not charge through conventional PTFE based tribo systems. Please contact AkzoNobel or consult with your equipment supplier for alternatives.

Post Application

For specific processes of post coating such as bending, thermal break, cleaning etc., please inform an Akzo Nobel representative for review and provide guidance or support. When screen printing or the application of sealants is required, it is strongly recommended to conduct a preliminary trial to confirm material compatibility and ensure the desired performance standards are achieved.

Application - Cleanup

Below are some recommendations for minimising the risk of cross contamination of **Interpon D3020 Fluoromax® Gen II** with powders based on other chemistries such as polyester:

- If possible, use a dedicated spray to waste booth if not reclaiming.
- Ensure thorough cleaning of spray booth, duct work, cyclone (if within system) and all powder application equipment (guns, hoses, pumps, hoppers, etc) before and after applying D3020 powders.
- Clean wet rags should be used for a final wipe down on the inside of the booth and feed hopper.
- When returning to application of polyester powders after a D3020 run, shoot foam blocks through hoses and flush guns with next powder to remove any traces of fluorocarbon, and spray this powder to waste before reclaiming.
- If reclaiming powder after D3020 run, check reclaim powder for contamination before reuse.
- Where possible isolate the application of D3020 from other production eg. use at weekends or on night shift when no other production is taking place.
- Operators should wear dedicated protective clothes for D3020 application. At other times, these should be stored in sealed containers.
- Interpon D3020 can be stored along with other powder so long as it is in sealed containers.

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Additional Information

A 30-year film integrity / 20-year colour warranty is available to Interpon D Approved Applicators. For further information please contact your local AkzoNobel sales office.

Interpon D3020 Fluoromax® Gen II 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.



green building council australia
MEMBER 2014-2015

Safety Precautions

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 (MSDS) available on request from your local AkzoNobel sales office.

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.

Therefore, unless we specifically agree in writing otherwise, we do not accept any liability whatsoever for the performance of the product or for any loss or damage arising out of the use of the product. All products supplied and technical advices given are subject to our standard terms and conditions of sale. You should request a copy of this document and review it carefully. The information contained in this data sheet is subject to modification from time to time in the light of experience and our policy of continuous development. It is the user's responsibility to verify that this data sheet is current prior to using the product.

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* Typical minimum specifications. Performance may vary slightly between individual products. Brand names mentioned in this data sheet are trademarks of or are licensed to AkzoNobel

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