

Product Data Sheet

AkzoNobel Powder Coatings

Cool Chemistry™

Interpon D1000

Product Description

Interpon D1000 Cool Chemistry™ is a new generation TGIC-free polyester based powder coating formulated on AkzoNobel proprietary resin technology designed to keep surfaces cool when exposed to direct sunlight.

Interpon D1000 Cool Chemistry™ works by reflecting infrared (IR) radiation away from the coated surface and is designed for the exterior environment offering excellent long term light and weather resistance from a single coat finish on a variety of substrates. **Interpon D1000 Cool Chemistry™** incorporates AkzoNobel patented Particle Management Technology providing outstanding powder application and enhanced recess penetration.

Interpon D1000 Cool Chemistry™ powder coatings are available in a wide range of colours in full gloss, satin and matt finishes. Textured, pearlescent and other special effects can be custom matched to the users' requirements.

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 30°C)
Shelf life	18 months
Sales code	G-Series
Stoving schedule (object temperature)	8 mins at 190°C or 5 mins at 200°C or 4 mins at 210°C (Object temperature)

Typical specifications

AS3715-2002, WANZ, AS4506, BS6496, BS6497, AAMA2603

Film properties

Mechanical, chemical and durability tests carried out on chromate conversion coated aluminium panels. All tests were performed on panels coated with 50 -70 microns of a gloss finish powder coating stoved for 10 minutes at 200°C (metal temperature).

Reduced gloss finishes may show lower values for mechanical performance.

Mechanical Tests

Flexibility	(Bend Test) AS1580 402.1	Pass 6mm
Adhesion	(2mm Crosshatch) AS1580 408.4	Classification 1 maximum
Cupping test	ISO 1520	Pass > 3mm
Pencil Hardness	AS1580 405.1	F - minimum
Reverse Impact	AS3715 Section 2.5.8	Pass 2.5Nm


Chemical Durability tests

Salt Spray	AS3715 Section 2.5.10	Pass 1000 hours - no corrosion creep more than 2mm from scribe
Humidity Resistance	AS3715 Section 2.5.7	Pass at 1000 hrs - no blistering or loss of adhesion
Distilled water immersion	BS3900-F7 at 40°C	Pass – no blistering or loss of gloss after 240 hours
Exterior durability	Excellent - pass AS3715 after 12 months continuous exposure with no film breakdown or reduction in protective properties.	
Colour stability	Excellent for continuous exposure up to 120°C.	
Total Solar Reflectance	ASTM E891/892	Min. 20% (black shade)

Pre-treatment

For optimum coating performance the following pre-treatment is recommended prior to the application of **Interpon D1000 Cool Chemistry™**. The pre-treatment should be used in accordance with the

Interpon D1000 Cool Chemistry™

	supplier's recommendations. A. Aluminium Multistage chrome chromate or chrome phosphate B. Galvanised Steel Multistage zinc phosphate or chromate C. Steel Multistage zinc or iron phosphate
Application	Interpon D1000 Cool Chemistry™ powder coatings can be applied by manual or automatic electrostatic spray equipment. Unused or over-sprayed powder coating can be reclaimed and recycled through the coating system.
Additional Information	Product performance warranties are available with the Interpon D1000 range through accredited applicators. For further information on the available warranties and the applicable terms and conditions, please contact your local AkzoNobel sales office. AkzoNobel Pty Limited has a policy not to use lead or other heavy metal based pigments in our range of powder coatings. As a result of this policy, the use of bright and deep colours such as Yellows, Oranges and Reds are not recommended for severe outdoor exposure where long-term colour fastness is required. Interpon D1000 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 <i>Note:</i> 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
Damage Repair	Surface preparation 40 % mixed, dependent on colour and gloss Application Full range available including BS, RAL, metallics, sparkles and special matches – all lead chromate free
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

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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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† Compare to standard powder coatings of the same colour.

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

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