

Product Data Sheet

AkzoNobel Powder Coatings High Durable Powder Coating Interpon® ACE 1000 LE

Product Description

Interpon® ACE 1000 LE is a series of high durability polyester TGIC powder coatings designed for exterior exposure and for use as a decorative and/or functional coating for agricultural and construction equipment and components. Interpon® ACE 1000 LE coatings offer the benefit of curing with lower oven temperature settings or increasing line speeds to improve throughput under normal temperature settings. These coatings also possess outstanding over bake resistance and excellent mechanical properties and provide significantly improved gloss retention and resistance to color change.

Powder Properties

Particle size	Suitable for electrostatic spray
Chemical type	Polyester TGIC-Free
High Gloss (60°)	≥ 80%
Satin Gloss (60°)	≥ 40% to ≤ 70%
Orange Peel	6 min (ACT ref. Panels)
Density	1.2 – 1.8 g/cm ³ Depending on Color
Storage	Dry cool conditions (<80°F, <25°C)
Shelf life	12 months, typical
Cure Schedule	15-30 minutes at 300°F (150°C) (object temperature) 10-20 minutes at 350°F (180°C)
	Failure to observe the correct curing conditions may cause difference in color, gloss and the deterioration of the coating properties.

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	Cold Rolled Steel
Pretreatment	Iron Phosphate (B1000) or Zinc Phosphate (B952)
Film Thickness	60-90 µm
Cure Schedule	20 minutes at 350°F (180°C) (object temperature)

Mechanical Tests

	Method	Result
Adhesion	ASTM D3359	5B
Hardness	ASTM-D3363 (Gouge)	≥ H
Impact Resistance	ASTMD2794	≥ 40 Direct / ≥ 20 Reverse (in*lb)
Elongation - Conical Mandrel	ASTM D522	≤ 3 mm

Chemical and Durability Tests

Salt Spray	ASTM B117	DTM: 240 hours min Average Creepback after Scraping: < 3.0 mm
Cyclical Corrosion	SAE J2334	DTM: 20 cycles/ 40 cycles if over Ace Primer Average Creepback after scraping: < 5.0 mm
Florida Exposure (12 mo.)	ASTM D1014	Gloss Retention (60°): ≥50% Color Change (ΔE): <4 max
Humidity Resistance	ASTM D2247	No rust, no blisters, no gloss reduction after 1000 hours

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	Chemical Resistance	ASTM D870	Good immersion resistance to water, diesel fuel, engine oil, gasoline, and engine coolant.
	Stability at Elevated temperatures		No significant change in color or gloss after 100% overbake.
Pre-treatment	Aluminum, steel or Zinc surfaces to be coated must be clean and free from grease. Iron phosphate and particularly lightweight zinc phosphating of ferrous metals improves corrosion resistance. Aluminum substrates may require a chromate or non-chromate conversion coating.		
Application	Interpon® ACE 1000 LE powders can be applied by manual or automatic electrostatic spray equipment. It is recommended that for consistent application and appearance the product be fluidized during application. Unused powder can be reclaimed using suitable equipment and recycled through the coating system. For more detailed information please contact AKZO NOBEL technical service people.		
Additional Information	Interpon® ACE 1000 LE high durability powder is an economical and environment friendly coating. Comparing to common outdoor use powder coating, it provides better anti-corrosion performance, color stability and gloss retention after exposure. In serious application environment, a primer is necessary. However, performance is still influenced by substrate & pretreatment type and film thickness uniformity.		
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. When using, do not eat, drink or smoke. 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.		
Disclaimer	<p>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.</p> <p>Brand names mentioned in this data sheet are trademarks of or are licensed to AkzoNobel</p>		

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