Product Data Sheet

AkzoNobel Powder Coatings
Interpon Align
EL565G

Product Description

Interpon Align is a “2C1B” (two-coat, one-bake) powder system comprised of a powder primer layer and an exterior color layer that are tailored to the coater / manufacturer specifications and processing requirements. The two specially formulated powder coating layers are applied to the component which is then put through a single curing process. This eliminates the need for a primer curing process before the topcoat is applied and offers the end coater considerable savings in energy, operational costs and time.

Powder Properties

Chemical type	Epoxy-Polyester
Product type	Primer
Markets	ACE/Cross-market segment products
Appearance	Dark grey, gloss
Gloss (60^{O})	75-80 gloss units
Particle Size	Suitable for electrostatic spray
Specific gravity	1.5 ± 0.1g/cm^3
Coverage	8.9m^2/kg (100% utilization @ 75 microns)
Storage	Under dry, cool (< 25°C) conditions, at least 12 months from production date (open boxes must be resealed)
Cure schedule (object temperature)	10-25 minutes @ 210-160 ^{o}C curing window. Bake schedule dependent on part thickness and heat up rate necessary to achieve specified temperature. Failure to observe the correct curing conditions may cause differences in color, gloss the deterioration of the coating properties

Comments

Interpon Align EL565G is part of a range of primer powders specifically formulated to allow the application of dual layers of coating that are co-cured together in a single bake or as part of a co-fusion process. Used in conjunction with an **Interpon Align** topcoat, the resultant system offers a superior UV and weather resistant coating with excellent appearance and performance with superior edge protection properties. **Interpon Align** systems can be applied to steel, aluminum and electrocoated surfaces.

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 (0.8mm)
Pretreatment	Iron phosphate (B1000)
Film Thickness	60-90 microns
Stoving Schedule	15 minutes @ 160^{o}c

Mechanical tests

Flexibility	BS EN ISO 6860	Pass >6mm
Adhesion	BS EN ISO 2409	≤5% removed (2mm crosscut)
Stone chip resistance	SAE J400	4B minimum
Impact resistance	BS EN ISO 6272-1	Direct ≥40 kg.cm, Reverse ≥20 kg.cm
Pencil hardness	BS EN ISO 15184	Pass 2H (gouge)

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Chemical and Durability tests	**Neutral Salt Spray**	BS EN ISO 9227	1000hr, <2mm creep from scribe
	Chemical immersion	BS EN ISO 2812-1	Resistant to a range of chemicals including diesel fuel, hydraulic oil, anti-freeze, distilled water

Pre-treatment

When applying as part of an Interpon Align two layer system, refer to the appropriate primer and topcoat datasheets

Interpon Align EL565G is suitable for application onto metal substrate surfaces cleaned of oil and grease and applied at ambient or higher substrate temperature range. Surface preparation depends upon the metal, the type of surface, its condition and the required performance. For good protection against corrosion either mechanical or chemical surface treatment or both, should be performed.

Mechanical treatment:
Blast profile impacts corrosion and potentially appearance, with grit blasting preferred. Substrate preparation, surface roughness, and condition must be confirmed as suitable for Interpon Align™.

Remove dust by blowing with clean dry air or brush with a soft brush. Make sure that the particles removed do not contaminate other surfaces that have already been dusted. Blast-cleaned parts must not be handled with bare hands prior to coating. Use clean, lint-free gloves.
Prior to blast-cleaning, it is advised that parts/substrate are kept at relative atmospheric humidity less than 85% and/or at object temperature greater than 3°C above the dew point to ensure proper substrate conditioning.
Laser cut parts or contaminates from cutting may require mechanical or chemical removal.

Chemical treatment:
To reinforce the anti-corrosion protection, or for practical assembly line reasons, chemical treatment may be performed in accordance with material supplier instructions.

Application

Interpon Align EL565G can be applied by manual or automatic electrostatic spray equipment. Powder can be fed from either box feeder or fluid bed equipment. A recommended film thickness range of 25-90 microns, depending on aesthetic and performance requirements. Optimum aesthetics and film performance achieved at 60-90 microns to ensure coverage of the metal surface, especially for grit blast profiled surfaces. Suitable bake schedules should be determined in association with technical assistance, dependent upon object metal thickness, mass and dimension.

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 Akzo Nobel has provided to its customers.

Disclaimer

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