Technical Datasheet

INTERPON D1036 SATIN AM

Standard durable polyester powder coatings with anti-microbial property

Product description

Interpon D1036 Satin AM is a range of powder coatings intended for use on architectural aluminium and galvanized steel. Available in a wide stock range Interpon D1036 Satin AM has been specifically formulated without the use of TGIC.
As part of the Interpon D1036 series of architectural powders, Interpon D1036 Satin AM gives excellent exterior durability and colour retention in combination with specific antimicrobial activity and conforms to the requirements of all the major European architectural finishing standards. All Interpon D1036 Satin AM powders are lead-free and meet the requirements of GSB Florida 1, Qualicoat Class 1, EN12206, and EN13438 (formerly BS6496 &BS6497), and AAMA 2603.

Approvals

Qualicoat Approval	P-0237 (FR) P-0772 (IT) P-1020 (TR) P-0531 (ES) P-1085 (UK) P-0923 (CZ) P-0746 (EG) P-0932 (RU)
GSB Approval	108ad (gloss 70)
Resistance to Fire Approval	Classification: A2,s1,d0 with film thickness up to 120 µm (generic polyester D1036, D2525) according to EN13501-1

Powder properties

	Typical value
Chemical Type	Polyester
Appearance	Smooth Satin
Density	1.2 - 1.9 g/cm³
Gloss (60°)	65 - 75 GU
Shelf life	24 months below 30 °C 12 months below 35 °C
Storage Conditions	Under dry, cool (≤ 30°C) conditions (open boxes must be resealed)
Curing schedule	20 - 40 min at 170°C 10 - 20 min at 180°C 8 - 16 min at 200°C (object temperature)

Pre-treatment

For maximum protection it is essential to pretreat components prior to the application of the powdercoating.
Aluminium components should receive a full multi-stage chromate conversion coating or suitable chrome-free pre-treatment or suitable pre-anodising to clean and condition the substrate. Detailed advice should be sought from the pre-treatment supplier.
Galvanised steel requires surface preparation by either multi-stage pretreatment using either zinc phosphate or chromate conversion or controlled sweep blasting. Depending on the type of galvanizing, degassing or use of anti-bubbling additives may be required – follow the procedural advice of the pretreatment supplier.
The products may also be used on cast or mild steel. For outdoor use Interpon Redox PZ anti-corrosive primer over a correctly prepared substrate is recommended.

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Application

Powders can be applied by manual or automatic electrostatic spray equipment.
This product should be applied at minimum 60µm.
All powders can show small color differences from batch to batch, this is normal and unavoidable.
Bonded products have better application properties than blended products (more stable) but attention should still be paid to line settings in order to avoid “marble effect” and changes in aspect after recycling.
Products with different codes should not be mixed even if same colour and gloss.
Different substrates (aluminium, steel, galvanized steel…), use of primer, and big changes in film thickness may give a different aspect.
While AkzoNobel take every precaution to minimize visible differences, this cannot be guaranteed.
Applicators and fabricators are advised to use a single batch for parts that will be assembled together. Differences are more likely with special effect powders.
For more information, it is suggested to read the Metallic Applications Guidelines.

Recycling	A constant ratio between virgin and recycled powders should be fixed by the coater in order to achieve a consistent effect following the AkzoNobel rules. Please consult AkzoNobel for further details as to the correct mixing ratio for virgin/reclaim powder. For solid shades, unused powder can be reclaimed Unused powder can be reclaimed using suitable equipment and recycled through the coating system, but a minimum of 70% virgin powder should be used.

Post application

For specific advice on the suitability of post coating processes such as bending or the use of sealants, adhesives, thermal break, cleaning etc. Please consult AkzoNobel.

Test conditions

The results are based on mechanical and chemical tests which (unless otherwise indicated) have been carried out under laboratory conditions and are given for guidance only
Testing has been determined under laboratory conditions using the following application properties and is for guidance only.

Pre-treatment	Chrome free Qualicoat/GSB approved pretreatment
Substrate	Aluminum (0.5-0.8 mm Al Mg1)
Curing schedule	15 min at 190°C (object temperature)
Film Thickness	60 - 80µm, ISO 2360

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Mechanical tests

	Typical value	Method/standard
Adhesion	Class 0	ISO 2409 (2 mm Crosshatch)
Erichsen cupping	Pass 5 mm	ISO 1520
Flexibility	Pass 5 mm	ISO 1519
Hardness	>80	ISO 2815 (Buchholz hardness)
Impact resistance	Pass 2,5 Joules reverse & direct (20 in lb)	ISO 6272-2 (d/r)

Chemical and durability tests

	Typical value	Method/standard
Chemical Resistance	Generally good resistance to acid, alkalis and oil at room temperatures.	
Sulphur Dioxide Resistance	Pass 24 cycles– no blistering, loss of gloss or discoloration	ISO 22479

Environmental and durability tests

	Typical value	Method/standard
Accelerated weathering	≥50% Gloss retention, 1000 h	ISO16474-2
	≥50% Gloss retention, 300 h	ISO 16474-3 QUV B 313 (GSB)
Acetic acid salt spray	No blistering in excess of 2 (S2) according to ISO 4628-2. Infiltration <16 mm2 /10 cm, length of any single infiltration shall not exceed 3 mm., 1000 h	ISO 9227
Humidity	No blistering in excess of 2 (S2) according to ISO 4628-2; the maximum infiltration at the cross is 1 mm, 1000 h	ISO 6270-2 CH (Constant humidity)
Exterior durability	Chalking – none in excess of minimum in ASTM D4214 ≥50% gloss retention, Colour retention accords with GSB/Qualicoat 1 year(s)	ISO 2810
Mortar resistance	No effect after 24 hours	EN 12206-1
Wet adhesion	No sign of detachment or blistering. Cross-cut value 0. Colour change is acceptable.	Qualicoat/GSB

Maintenance

For specific advice on Cleaning and Maintenance, please consult the Interpon D series Cleaning and Maintenance Guidelines available from AkzoNobel.

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Additional Information

Interpon D1036 Satin AM in conjunction with BioCote Ltd ® has been tested for antimicrobial efficacy in accordance with ISO 22196: 2011 and exhibited a minimum of 95% and up to 99.99% reduction in the population of Escheria Coli and Methicillin Resistant Staphylococcus Aureus (MRSA). Testing was carried out by an independent laboratory and is classified as 'microbiological results satisfactory'. BioCote silver ion technology has been proven effective against the following bacteria in Laboratory conditions.

Multi Drug Resistant Bacteria
ESBL Erischeria coli
CRE Klebsiella pneumonia
MRSA Methicillin Resistant Staphylococcus Aureus
VRE Vancomycin Resistant Enterococcus

Bacteria
Acinetobacter baumanii
Bacilus subtilis
Campylobacter coli
Campylobacter jejuni
Clostridium difficile (excluding spore form)
Escherichia coli O157
Enterbacter aerogenes
Enterococcus faecalis
Legionella pneumophila
Listeria monocytogenes
Pseudomonas auruginosa
Salmonella enteritidis
Salmonella typhimurium
Shigella spp.
Staphylococcus aureus
Staphylococcus epidermidis
Streptococcus faecalis

Interpon D1036 Satin AM contains BioCote silver phosphate glass antimicrobial technology to preserve the coating surface and prevent degradation caused by microbial growth once applied to the intended substrate.

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

http://www.interpon.com/contact-us/

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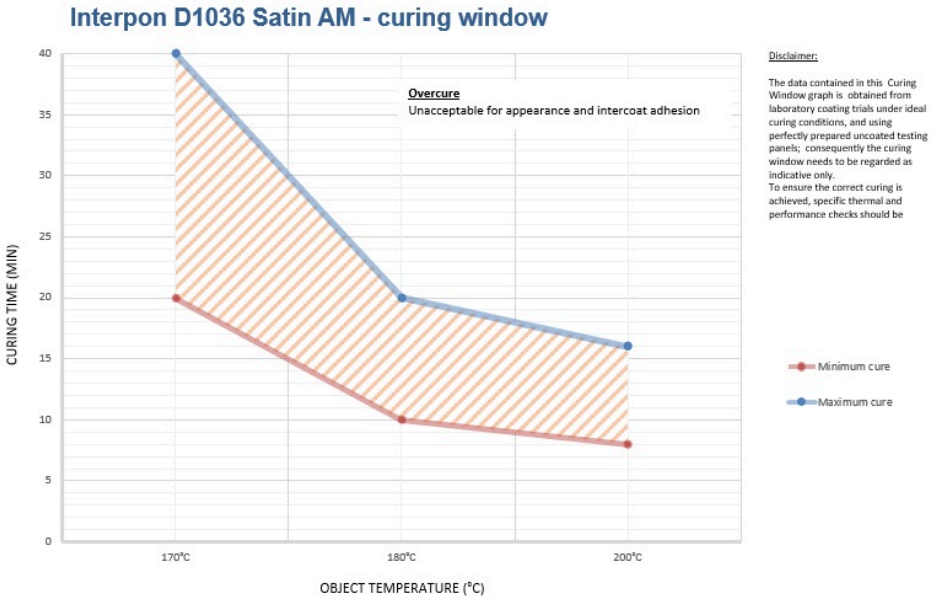
Appendix

Curing Window



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