Exceeding the Standard

Aluminum Powder Coating Process

Approved Applicator

ALUMI-GUARD®

Protecting what you love

Not all architectural coaters meet the standards set by **AkzoNobel**

Quality Management System

Interpon D Approved Applicators must have a fully operational Quality Management System with written procedures and defined record keeping/documentation that covers, at a minimum, the mandatory requirements set forth by AkzoNobel to ensure that the metal pretreatment and powder application processes are carried out consistently and to the required standard.

Testing

Interpon D Approved Applicators' test laboratory must contain specific equipment suitable to carry out required testing. Testing is to be performed at defined intervals and methods to ensure pretreatment consistency, correct curing, and required film performance (i.e. appearance, film thickness, color, gloss and adhesion) on finished articles.

Quality is always at the forefront of what we do. **Alumi-Guard®**

AkzoNobel undertakes an extensive evaluation process and only issues Interpon D Approved Applicator status to companies whose standard of coating, testing and quality management systems meet the demands of the architectural industry and have demonstrated their commitment to the highest standard of quality.

The Approval Process/Criteria

- Quality Management Process/Criteria

  AkzoNobel conducts a full audit of the applicator's process controls and quality management system, including testing.

- Pretreatment, Application and Curing

  Coated panels and parts are submitted for extensive testing by AkzoNobel relative to coating appearance and performance.

Pretreatment, Application and Curing

Interpon D Approved Applicators must have the application facilities and necessary experience to apply the powder coating evenly to a controlled film thickness.

Pretreatment and application must meet the standards defined by AkzoNobel and/or AAMA with respect to substrate, cleaning, surface, preparation and pretreatment.

As oven temperature can vary during a work shift and can have a negative effect on the curing of the powder coating, applicators must check ovens at defined intervals to ensure no temperature shift has occurred. Temperature variations between the top and bottom of the oven are also to be monitored.

Audit & Renewal

AkzoNobel carries out full audits of its Interpon D Approved Applicators on a defined basis and frequently performs random spot checks to assess their continuing ability to comply with the approval criteria. There is also continuous improvement and training on processes for all powder coating personnel, including operators and supervisors.

In addition to the audit of the standards, as described above, the applicator must also submit finished parts annually for testing by AkzoNobel.

What Makes Powder Coating an Environmentally Friendly Process?

Since powder coating does not use solvents or chemicals like liquid paints, the process releases less pollutants into the air and leaves a smaller carbon footprint.

Through the ability to reclaim and reuse over-sprayed material — unlike excess liquid paint that needs to be disposed —the powder coating process generates no hazardous waste. Powder coating reduces CO2 emissions by up to 60% compared to liquid paint.

AkzoNobel

Interpon POWDER COATINGS

ALUMI-GUARD®

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AAMA STANDARDS COMPARISON - ORGANIC COATINGS ON ALUMINUM EXTRUSIONS AND PANELS

ATTRIBUTES		AAMA 2603-17a	AAMA 2604 2604-17a	AAMA 2605 2605-17a
DRY FILM THICKNESS		5.3	5.3	5.3
	Total	Meet manufacturer specification 20 micron min (80% readings)	Meet manufacturer specification 30 micron min (80% readings)	Meet manufacturer specification 30 micron min (80% readings)
	Primer	Optional	Optional	Optional
	Topcoat	Must be >85% film specified, 17 micron minimum	Max of 5% less than 25 micron or 85% of spec	Max of 5% less than 25 microns or 85% of spec
SURFACE PREPARATION AND PRETREATMENT		5.4 and 7.0	7.0	7.0
	System	Multi-stage cleaning conversion coating	Multi-stage cleaning conversion coating	Multi-stage cleaning conversion coating
	Coating Weight	If Chrome, >323 mg/m2 If non-Chrome, per mfg	If Chrome, >431 mg/m2 If non-Chrome, per mfg requires in plant checks	If Chrome, >431 mg/m2 If non-Chrome, per mfg requires in plant checks
COLOR UNIFORMITY		8.1	8.1	8.1
	—	Agreement	Agreement Suggested 2ΔE	Agreement Suggested 2ΔE
SPECULAR GLOSS		8.2	7.2	7.2
	—	± 5 units	± 5 units	± 5 units
DRY FILM HARDNESS		8.3	8.3	8.3
	—	H minimum No rupture of film	F minimum No rupture of film	F minimum No rupture of film
FILM ADHESION		8.4	8.4	8.4
	Dry Adhesion	0% film removal No blistering	0% film removal No blistering	0% film removal No blistering
	Wet Adhesion	0% film removal No blistering	0% film removal No blistering	0% film removal No blistering
	Boiling Water Adhesion	0% film removal No blistering	0% film removal No blistering	0% film removal No blistering
IMPACT RESISTANCE		8.5	8.5	8.5
	—	No film removal Slight perimeter cracking ok	No film removal Slight perimeter cracking ok	No film removal Slight perimeter cracking ok
ABRASION RESISTANCE		N/A	8.6	8.6
	—	0	≥ 20 L/mil	≥ 40 L/mil
CHEMICAL RESISTANCE	—	No loss of adhesion, blistering or visually apparent change after exposure to muriatic acid, mortar and detergent	No loss of adhesion, blistering or visually apparent change after exposure to muriatic acid, mortar, detergent, window cleaner and nitric acid	
ACCELERATED WEATHERING		8.7	8.8	8.8
	Humidity	1,500 hours ""Few"" blisters max blister size No. 8	3,000 hours ""Few"" blisters max blister size No. 8	4,000 hours ""Few"" blisters max blister size No. 8
	Cold Crack Cycle	Not required	Not required	Not required
	Oven Aging	Not required	Not required	Not required
	Salt Spray Resistance	1,500 hours • ≥ 7 on scribe (average) ≥ 7 on cut edge (average) • ≥ 8 blister in field (average)	3,000 hours ≥ 7 on scribe (average) • ≥ 7 on cut edge (average) ≥ 8 blister in field (average)	Not required
	Cyclic Corrosion	Not required	Not required	2,000 hours ASTM G85 • ≥ 7 on scribe (average) ≥ 7 on cut edge (average) • ≥ 8 blister in field (average)
	Accelerated Exposure	Not required	Not required	Not required
	Alternate Accelerated	N/A	N/A	N/A

Your Local Authorized Alumi-Guard® Dealer

Alumi-Guard® surpasses the 10,000 hour Salt Spray Test (ASTM B-117), which is three times greater than the AAMA 2604-17a specifications.

Built by Barrette