

ALWAN PR29/AM

Polyester Anti-Microbial Powder Coating

DESCRIPTION **ALWANPR29/AM** is a special polyester powder coating that prevent the spread of dangerous micro-organisms and suppress the growth of mold & bacteria.

PROPERTIES POWDER	<ul style="list-style-type: none"> • Density 1, 42-1, 62 (Depending on colour) • Particle size distribution Optimized for Electrostatic application And in function of the Coating Aspect • Storage Dry, max. 25°C: at least 1 year. • Application with Corona gun/film thickness: 70-90µm • Curing schedule 10 min. at 200°C (metal temperature) 15 min. at 190°C (metal temperature) 20 min. at 180°C (metal temperature) Preferably below 220°C (metal Temperature)
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MECHANICAL PROPERTIES OF THE COATING	<ul style="list-style-type: none"> • Substrate Cold rolled steel (0, 8 mm), degreased • Curing schedule 10 min. 200°C (metal temperature) • Film thickness (ISO 2178:1982) 70µm visually • Adhesion (ISO 2409 :) Gt=0 • Erichsen (ISO 1520 :) ≥ 5 mm <li style="padding-left: 20px;">• Impact (reverse) (ISO 6272 :) ≥ 100 kg.cm. • Cylindrical mandrel (ISO 1519 :) diameter 10mm:no cracks
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Gulf Polyester Powder Coating Company (ALWAN)

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ANTI-MICROBIAL ACTIVITY

• After 24 hrs

99% decrease in bacterial population

Listeria monocytogenes
Salmonella Enteritidis
Staphylococcus Aureus
Escherichia Coli 0157

ANTICORROSION PROPERTIES

substrate

In order to guarantee an optimal adhesion as well as a good corrosion protection, and adequate surface treatment – depending on the substrate -must be applied:

- Steel (standard indoor) : iron phosphatation, amorphous
- Steel (outdoor) : zinc phosphatation, crystalline,
Or better: tri-cationic phosphatation
- Galvanized steel (zinc) : chromatisation, or better: tri-cationic phosphatation
- Metallized steel : -
- Aluminium : chromate treatment (DIN 50939)
- Salt spray (ISO 7253) pass at 1000 hrs-no corrosion more than 1.60 mm
- Isopropyl Alcohol 15 cycle pass

Durability

(ASTM G53): QUV- A340

Cycle UV radiation : 8 h

Cycle condensation : 4 h

Total time : 5000 h

Powder Coating

Gloss retention 60°
(ISO 2813:1994)

Delta E
(ISO 7724-3)

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CHEMICAL RESISTANCE

Alwan Polyester AM coatings have been tested for resistance to various chemicals. The reagent is maintained in contact with the coating for 48 hours at room temperature.

Chemicals		Results
Hydrochloric acid	10%	Film unchanged
Nitric acid	30%	Film matt but washable
Hydrogen Sulphide	(saturated)	Film unchanged
Hydrogen Peroxide	40 V	Film unchanged
Ammonium Hydroxide	10%	Film unchanged
Ammonium Hydroxide	33%	Film unchanged
Sodium Hydroxide	5%	Film unchanged
Tartaric acid	5%	Film unchanged
Citric acid	5%	Film unchanged
Lactic acid	5%	Film unchanged
Ethanol	-	Film unchanged
n-Butanol	-	Film unchanged
Petroleum Ether	-	Slight softening

This information is given in good faith, A warranty, expressed or implied, cannot be supplied as results may vary depending on application conditions.

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