### **Product Data Sheet**



## **AE Powder Coating**

#### **Product Description**

AE series powder coating are mainly made of high performance weather resistant polyester resin without TGIC, which are suitable for outdoor buildings, automobile accessories, transportation facilities and other fields with high weather resistance requirement. It has been certified to meet the requirement of HG/T 2006-2006, GB/T5237.4 Class 1, Qualicoat Class 1 and AAMA 2603.

#### Film Appearance & Package

Appearance effects: smooth surface (all kinds of gloss range), sanding, hammer effectColor:According to requirementPacking:20Kgs.Carton boxes with double PE-bag.

For more information, please contact us.

#### **Physical Data**

#### **Substrate & Preparation**

Substrate: 1-Aluminum profile and aluminum sheet. 2-Steel or galvanized steel sheet. 3-Also can be used to protect and decorate indoor equipment (For more information, please contact us).

Preparation: To achieve the best performance of AE series products, the pretreatment must be carried out according to the construction guidelines. The base material shall be pre-treated according to GB/T9271 or ISO 1514. The cold-rolled steel plate tested for salt spray resistance shall be phosphate in addition to GB/T 9217. If the product is applied in high-anticorrosive environment of C4 or above (rated according to ISO12944), it can be used with Huajia anticorrosive special primer (please consult us).

#### Curing Condition (Object Temperature)

-> Can be used such as IR, gas, hot convection drying path, oven and other ways of curing.
-> If use the gas oven to bake, combustion by-products will change the color of the film.
Recommended curing condition: Object temperature/time 180-200°C/10-15min

#### Application

- Do not mix this product with others
- The substrate must be properly pre-treated before use
- Manual or automatic electrostatic spraying can be used
- The film thickness should be determined according to the geometry and requirement of the coated object, and the performance should be evaluated when the film thickness is less than 60µm

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#### **Product Performance & Film Properties**

PROPERTIES	TEST METHOD	CRITERIA
Film Thickness	ISO 2360	60-80um
Adhesion	ISO 2409	Class 0
Hardness	ISO 2815	≥80
Cupping Test	ISO 1520	≥5mm
Bend Test	ISO 1519	≤3mm
Salt Spray	ISO 9227	Aluminum Substrate: Acetic acid salt spray 1000h – no corrosion area more than 4mm
		from scribe
		Other substrate: salt spray 500h - no corrosion area more than 2mm from scribe
Impact Test	ISO 6272	≥2.5Nm
	GB/T 1732	50cm*Kg
Boiling Water Resistance	GB/T 1733	Pass- no defects after 2 hours boiling water, extremely dispersed microscopic bubbles
		visible to the naked eye, slight variations in gloss and color are acceptable.
Humidity	ISO 6270	Pass at 1000 hours – no corrosion area $\geq$ 2 mm from scribe
Accolorated Weathering	ccelerated Weathering Test ISO 11341	AE: 800h Q-Sun test, $\ge$ 70 % Gloss retention , $\triangle E \le 6$
Ũ		AE plus: 1000h Q-Sun test $\geqslant 50\%$ Gloss retention, $\bigtriangleup E$ according to Qualicoat
1031		requirement (appendix A7)
Florida Test	ISO 2810	AE plus: 1 year Florida exposure, $\geq$ 50% Gloss retention, $\triangle$ E according to Qualicoat
		requirement (appendix A7)

Note: 1-All chemical and physical properties are laboratory test results (unless otherwise stated), and are for reference only in application. The performance still needs to depend on the final use environment of the product.

2-The substrate for the above chemical and physical tests is chromate aluminum plate, and all test plates are sprayed with a film thickness of 60 to 80  $\mu$ m.

#### **Storage Stability**

Store in a cool ( $\leq$ 35 °C), dry warehouse, prevent direct sunlight, and should be isolated from fire source, away from heat source. Storage life is 12 months from the date of production. For products with gloss less than 70%, storage life is 6 months@30 °C. For special products, please refer to specific product description.

#### **Safety Precaution**

All dusts are respiratory irritants. Therefore, inhalation of the dust or of the vapour resulting from the cure should be avoided. Take step 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 and powder should not be allowed to build up on surface or ledge. Dust clouds of any finely divided organic material can be ignited with an electric spark or open flame. All equipment should be electrically earthed to prevent build up of static.

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