



## Introducing Anodite

The colors of anodizing

The benefits of powder coating

Anodite is a new generation of architectural polyester powder coatings with a smooth, low-gloss, metallic appearance designed to simulate the colors of anodizing — but with the added advantages of hiding surface imperfections and defects in the metal.

### General Features

This thermosetting coating contains polyester resins specially selected for their excellent resistance to UV radiation and outdoor weathering.

The powder forms a decorative film with enhanced outdoor resistance.

The PE / UM were created for coating aluminium components used in architecture and for coating galvanized steel and are approved by Qualicoat (P-1718) for Class 2 Category 1, and GSB Master.

The metallic effect pigment is fixed on the powder through a bonding process, making it possible to achieve the best results in terms of application and reproducibility for the metallic effect powders.

### Application

Due to its superior performance formulation, this coating is most suitable for exterior applications.

### Advised Cycles

The surface to be coated must be cleaned of oils, grease or flash rust. The following pre-treatment of the surface is suggested:

For aluminium	Chromate conversion pretreatment, alternative conversion systems, anodic pretreatment and chrome-free pretreatment according to Qualicoat and GSB specifications
For galvanized steel	chromating

### Handling and Storage

Has to be stored at temperatures lower than 30°C; higher temperatures may damage the powder by causing undesired alterations or blobs. Storage life in original package: 12 months.

### Technical Data

Test Method	Range	Reference Method
Calc. specific gravity (kg/l):	1.15 - 1.35	
Nonvolatile content (v/v) (%):	100 - 100	
70µm theoretical spread rate (m <sup>2</sup> /kg):	10 - 12	
Particle size dist. < 32µ (%):	48 - 54	
Particle size dist. < 63µ (%):	87 - 93	
Dry film thickness (microns):	60 - 80	UNI EN ISO 2178
Gloss 60°:	3 - 9	UNI EN ISO 2813:2001

### Application Method

Apply with guns with negative terminal (60/80KV) or triboelectric guns automatically or manually. Use of fluidized bed is recommended.

It is advised to apply the product in layers with the thickness of 60-90 microns and not exceeding 120 microns to stove at 190°C for 20 minutes (temperature of the support). For stoving of PE / UM products, it is possible to use the following curing windows:

10-15 minutes	200°C (temperature of the support)
20-30 minutes	190°C (temperature of the support)

For stoving, use the given indications.

## Technological Features and Resistance Tests

Substrate	aluminium
Thickness	70 microns
Stoving	20 minutes at 190°C

Chemical resistance test by immersing for 48 hours at indoor temperature into:

Hydrochloric acid 10%	film is intact
Nitric acid 30%	matte, but washing off
Saturated hydrogen sulfide	intact
Hydrogen peroxide 40 volumes	intact
Ammonium hydroxide 10%	intact
Ammonium hydroxide 33%	intact
Sodium hydroxide 5%	intact
Tartaric acid 5%	intact
Citric acid 5%	intact
Lactic acid 5%	intact
Ethanol	intact
N-butanol	intact
Petroleum ether	slightly softened

The chemical resistance test was carried out on chromated aluminium.

Test Method	Range	Reference Method
Buchholz indentation test:	more than 90	UNI EN ISO 2815
P/CM040 Erichsen cupping test (mm):	more than 5	UNI EN ISO 1520
Direct impact test (cm.kg):	more than 25	ASTM D 2794; ISO 6272-2:2002
Opposite impact test (cm.kg)	more than 25	ASTM D 2794; ISO 6272-2:2002
Cylindrical mandrel size 4	does not break	UNI EN ISO 1519
Crosscut adhesion (2 mm) (GT):	00	UNI EN ISO 2409
Resistance to humidity (humidity test):	1000 hours later - no blistering, indentation along the cross of maximum 1 mm, class 1.5	UNI EN ISO 6270-2:2005

## Color Tolerance After Weathering

Accelerated weathering tests ISO 16474-2

PE / UM (Class 2) are passing accelerated Weathering tests	
Gloss retention:	90% after 1000 hours
Color change:	Delta E not greater than 50% of the limits prescribed in Appendix A7 for Class 2

Natural weathering test Exposure in Florida according to ISO 2810

Gloss retention is at least:	75% after 1 Year Florida 60% after 2 Years Florida 50% after 3 Years Florida
Color change:	For Class 2 organic coatings the $\Delta E$ values do not exceed the maximum values prescribed in the annexed table (see Appendix A7)

## Note to User

The mechanical tests of the PE / UM are carried out according to the Qualicoat 2 specifications.

The information contained in this document, while based on evidence and reliable methods, cannot be considered exhaustive.

This information is current to the date of issuance of this data sheet; therefore it is the user's responsibility to verify that the data provided on this sheet is current to the date of the product.

The user, under their own responsibility, shall respect all the existing provisions on hygiene and safety and shall verify every time the features and the specific and appropriate way to use the product because the user's respect of the provisions is not under the producer's direct control.

The manufacturer does not guarantee nor assume any liability or responsibility for harm that might result from a misuse of the product or for damages that have arisen after the product's distribution.

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