### SHERWIN-WILLIAMS. **General Industrial Coatings**

# BOND PE/P/M MIC

BONDED METALIC PE/P/M 30+/-5GL SERIE 125

| Group     | 125 – Bonded Metallic – Polyester Architectural Matt |
|-----------|--|
| Curing    | min: 180°C @ 20' to 35'   max: 200°C @ 10' to 15'    |
| Surface   | Smooth Matt Metallic Effect                          |
| Gloss     | Visual Matt  |
| Approvals | Qualicoat: P-0587   GSB Florida 1 Quality : 152 f    |

#### **PRODUCT DESCRIPTION**

A metallic effect TGIC-free thermosetting polyester powder coating featuring excellent resistance to UV radiation and outdoor weathering. The powder forms a protective and decorative film with enhanced outdoor resistance.

The PE/P/M MIC range is designed to protect aluminium and galvanised steel components used in the fenestration sector on commercial and domestic installations offering an attractive metallic effect finish that adds depth to the aesthetics of a building.

The metallic effect pigment is incorporated into the product by means of a bonding process for optimum application and reproducibility.

In high traffic areas a clearcoat can be applied to prolong the aesthetics of the coating.

#### Storage Life:

Store at temperatures lower than 30°C. Storage life in original package: 24 months.

#### **CHARACTERISTICS**

Spec. Gravity (Kg/I): 1,25 - 1,80 DFT (micron): 60 - 80 Theoretical Coverage @60um: 11 m<sup>2</sup>/kg

**Recommended film thickness:** 60 - 80 µm Dry:

Reaction To Fire EN 13501-1 Classification: A2-s1,d0

#### APPLICATION

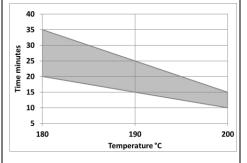
Suitable for automatic and manual electrostatic application Please contact your Sherwin-Williams representative to discuss tribo-static application Optimum performance is achieved with

a dry film thickness of 60-80 microns.

| Curing | Cycle |
|--------|-------|
| Time   |       |

| Time  |     |
|-------|-----|
| 10-15 | min |
| 15-25 | min |
| 20-35 | min |

| Substrate temperature |
|-----------------------|
| 200°C                 |
| 190°C                 |
| 180°C                 |



#### CHEMICAL RESISTANCE

RESULT

Immersion method for 48 hours at ambient temperature:

#### **CHEMICAL**

| •••••••                               |                   |  |  |  |
|---------------------------------------|-------------------|--|--|--|
| Hydrochloric acid 10 %                | intact            |  |  |  |
| Nitric acid 30 % matt, but washing of |                   |  |  |  |
| Saturated hydrogen su                 | lphide intact     |  |  |  |
| Hydrogen peroxide 40                  | volumes intact    |  |  |  |
| Ammonium hydroxide                    | 10% intact        |  |  |  |
| Ammonium hydroxide                    | 33% intact        |  |  |  |
| Sodium hydroxide 5%                   | intact            |  |  |  |
| Tartaric acid 5%                      | intact            |  |  |  |
| Sodium hydroxide 5%                   | intact            |  |  |  |
| Citric acid 5%                        | intact            |  |  |  |
| Lactic acid 5%                        | intact            |  |  |  |
| Ethanol                               | intact            |  |  |  |
| N-butanol                             | intact            |  |  |  |
| Petroleum ether                       | slightly softened |  |  |  |

#### SUBSTRATE PREPARATION

The surface treatment should be chosen according to the type of substrate and the required performance.

The surface to be coated must be free from oxidation, oil, grease or any other form of contamination.

A good quality pretreatment process is recommended for optimum performance, certified products can be found via Qualicoat, GSB or Qualisteelcoat.

Final user should select the proper pretreatment based on corrosion resistance performance.

Where required, the corrosion resistance can be enhanced using a primer system.

|              |  | Substrate |       |                     |                     |  |
|--------------|--|-----------|-------|---------------------|---------------------|--|
| Pretreatment |  | Aluminum  | Steel | Galvanized<br>Steel | Metallized<br>Steel |  |
|              | Cr-free (Zr, Ti,<br>Oxilanes or<br>alternatives) | *         |       | 1                   |                     |  |
|              | Pre-anodising                                    | ~         |       |                     |                     |  |
| ical         | Chromate   | ~         |       | ~                   |                     |  |
| Chemical     | Phospho-<br>chromate                             | 1         |       |                     |                     |  |
|              | Iron<br>phosphate                                |           | *     |                     |                     |  |
|              | Zinc<br>phosphate                                |           | ~     | ~                   |                     |  |
|              | Nano-ceramic                                     |           | ~     |                     |                     |  |
| Mechanical   | Sand blasting                                    |           | ~     |                     |                     |  |
|              | Soft blasting                                    |           |       | ~                   | ~                   |  |
|              | Sweeping   |           |       | 1                   | *                   |  |

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#### PERFORMANCE DATA

A 60um coating on an aluminum test panel cured 20' @ 180°C satisfied the following requirements,

Buchholz indentation test: more than 90 UNI EN ISO 2815

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

Reverse impact test(cm.kg): more than 25 ASTM D 2794; ISO 6272-2:2002

Cylindrical mandrel size 5: does not break UNI EN ISO 1519

Crosscut adhesion (2mm) (GT): Class 0 UNI EN ISO 2409

Acetic salt fog test: Meets the requirements of Qualicoat and GSB International UNI ISO 9227

Resistance to humidity: (Humidity test) 1000 hours no blistering, infiltration from the cross of max 1mm UNI EN ISO 6270-2:2005

Accelerated Weathering: 1000h Xenon-arc ≥ 50% gloss retention According with Qualicoat cycle (ISO16474-2)

300h UV-B: ≥ 50% gloss retention According with GSB cycle (ISO16474-3)

#### CAUTION

#### FOR INDUSTRIAL SHOP APPLICATION

Thoroughly review product label and Safety Data Sheet (SDS) prior to using this product.

A Safety Data Sheet is available from your local Sherwin-Williams facility or distributor

Note: Product Data Sheets are periodically updated to reflect new information relating to the product. It is important that the user obtain the most recent Product Data Sheet for the product being used. The information, rating, and opinions stated here pertain to the material currently offered and represent the results of tests believed to be reliable. However, due to variations in user handling and methods of application which are not known or under our control, The Sherwin-Williams Company cannot make any warranties as to the end result.

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