



## POLITHERM 20 R SM BLACK 72880 UM

**Code:** 10005267

### PRODUCT DESCRIPTION

Hybrid powder coating with good adhesion and flexibility, high physical resistance and good chemical resistance.

### RECOMMENDED USE

Coating of metal parts for use in indoor or sheltered environments.

### CERTIFICATIONS AND APPROVALS

Free from heavy metals and other substances provided for in RoHs Directive 2015/863 EU of 31/03/2015.

### PACKAGING

Cardboard box with 55 lb in high-density polyethylene bag.

### CHARACTERISTICS OF MANUFACTURED PRODUCT

|                                  |                                                                                                                        |
|----------------------------------|------------------------------------------------------------------------------------------------------------------------|
| <b>Resin</b>                     | Epoxy/Polyester                                                                                                        |
| <b>Gloss</b>                     | Ultra matte                                                                                                            |
| <b>Finish</b>                    | Smooth                                                                                                                 |
| <b>Specific gravity (± 0,10)</b> | 1,62 g/cm³                                                                                                             |
| <b>Theoretical Coverage</b>      | 120.5 ft²/lb at 1.0 mil                                                                                                |
| <b>Mass loss during cure</b>     | Maximum 2%                                                                                                             |
| <b>Moisture content</b>          | Maximum 0.6%                                                                                                           |
| <b>Shelf life</b>                | 12 months                                                                                                              |
| <b>Storage condition</b>         | It must be stored in closed containers, in cool, dry and covered places, at an ambient temperature not exceeding 86°F. |

### APPLICATION CHARACTERISTICS

|                            |                                                                                                                                                                                        |
|----------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Substrate</b>           | Ferrous metals<br>Non-ferrous metals                                                                                                                                                   |
| <b>Surface preparation</b> | Ferrous : Phosphatization or nanoceramic<br>Non-ferrous: Chromatization or nanoceramic                                                                                                 |
| <b>Surface cleaning</b>    | The performance of this product is related to the degree of surface preparation. The surface must be clean, dry and free of any contaminants. Completely remove oils, grease and fats. |
| <b>Thickness</b>           | 2.0 mils - 2.8 mils                                                                                                                                                                    |
| <b>Cure conditions</b>     | 10 min à 392 °F (metal temperature).                                                                                                                                                   |
| <b>Cure windows</b>        | 10 min - 15 min at 392 °F                                                                                                                                                              |
| <b>Application system</b>  | Electrostatic spray gun corona                                                                                                                                                         |

### NOTE:

For non-ferrous metals phosphatizing, please contact our technical service.

### CHARACTERISTICS OF APPLIED PRODUCT

| Test             | Specification/Standard        |
|------------------|-------------------------------|
| <b>Adhesion</b>  | Maximum 5B (ASTM D3359)       |
| <b>Gloss 60°</b> | 0 - 4 (ASTM D523)             |
| <b>Impact</b>    | Minimum 43 lb.in (ASTM D2794) |



|                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                               |
|--------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------|
|                                            | Flexibility (conic mandrel)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Maximum 1/8 in (ASTM D790)    |
| <b>CHEMICAL RESISTANCE CHARACTERISTICS</b> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                               |
|                                            | <b>Test</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | <b>Specification/Standard</b> |
|                                            | <b>Humidity</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Minimum 2000h (ASTM D2247)    |
|                                            | <b>Salt spray</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Minimum 1500h (ASTM B117)     |
| <b>NOTE:</b>                               | In the chemical resistance tests, the substrate used was cold-rolled steel sheet with tricationic phosphate. The mechanical resistance tests were performed on degreased common steel sheet under specific curing and coating conditions for the product. The values may vary depending on the substrate used.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                               |
| <b>SAFETY PRECAUTIONS</b>                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                               |
|                                            | Guidance is available in the product's Safety Data Sheet (SDS).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                               |
| <b>NOTE</b>                                | The information provided herein is based on our testing and experience and is intended to inform you about the product and its possible applications. The information provided in this bulletin is not intended to be complete, and the user assumes the risk of using the product for a purpose other than the specifications recommended in this bulletin without first obtaining our written confirmation of its suitability for the intended purpose. While we strive to ensure the accuracy of the information provided herein, we cannot control the quality or condition of the substrate, nor any other factors that affect the use and application of this paint. Therefore, unless we agree in writing to any condition that deviates from our recommendations, we accept no liability that may arise regarding the performance of this product. The information contained in this bulletin is subject to change without notice, based on our experience and policy of continuous development. |                               |