



As with all powder coatings, this product may vary between lot numbers, KV settings, mil thickness, oven temperatures, application equipment and technique. We recommend a clear top coat to maintain the appearance and prevent oxidation on metallic powder coatings. Always coat a sample prior to any production, to determine if this product meets all your requirements.

Product Number and Name: PMB 10643 Polaris Copper

Suggested Cure Time and Temperature: 10 Minutes at 400°F

**As always, the cure time starts when the substrate reaches temperature.**

Special Instructions / Notes:

**Note: Each additional coat of powder coating will act as an insulator, which will require additional time for the substrate to reach temperature. Extend cure times as needed.**

Powder Properties:

Thermosetting Powder Coating

Powder type: TGIC Polyester

Specific Gravity: 1.52+/-0.5

Storage: Store in cool dry environment 70° F

Shelf Life: 6-8 Months

Application:

Pretreatment and proper prep to substrate prior to powder coating is a critical factor in developing maximum corrosion resistance and maximizing the lifetime of the product.

Electrostatic spray to cold substrate

Recommended Mil Thickness: 2.0-3.0 Mils

Equipment information:

Fluidized Hopper Recommended

Not Recommended for tribo application

Suggested Nozzle: No specific tip required

Testing parameters are as follows:

- **Gloss Units and levels** are measured at a 60° angle
- **Adhesion** is measured on a scale of 0B, 1B, 2B, 3B, 4B, 5B, with 5B being the highest achievable rating.
- **Flexibility or Conical Mandrel Bend:** “100% Resistance” is the highest achievable rating and indicates that the coating did not crack or spall.
- **Impact Performance Direct/ Indirect** is measured on a scale of 0 inch-lbs. to 160 inch-lbs., with 160 inch-lbs. being the highest achievable rating.

### Testing Results

Type of Substrate: Mild steel Q panel/ Aluminum Q panel

Cure Method: 10 Minutes at 400°F

Nozzle type used for testing: Conical

Average Mil Thickness of panels: 2.0-3.0 Mils

KV settings- 50

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|--|-----------------------|
| • <b>Gloss Unit</b>                          | <b>11-20 GU</b>       |
| • <b>Gloss Level</b>                         | <b>Eggshell</b>       |
| • <b>Adhesion</b>                            | <b>5B</b>             |
| • <b>Flexibility or Conical Mandrel Bend</b> | <b>96% Resistance</b> |
| • <b>Impact Performance Direct</b>           | <b>80 Inch-pounds</b> |
| • <b>Impact Performance Indirect</b>         | <b>40 Inch-pounds</b> |
| • <b>Pencil Hardness</b>                     | <b>2H-H</b>           |

#### **PLEASE NOTE**

Not all powders are recommended for exterior use, it is the buyer’s responsibility to ensure they are purchasing a product that is best suited for the intended application. Certain pigment types, such as those found in the Illusion Series and Transparent powders do not have the same level of UV resistance as those found in Solid Tone finish types.

Exterior tops coats applied to interior finishes may prolong the fading process but DOES NOT ensure a long-lasting exterior finish. Please conduct your own testing to ensure the products you choose meet your requirements.

Applicable for product manufactured after: 8/19/2021

Revisions:

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The information contained in this bulletin we believe to be correct to the best of our knowledge and testing. The recommendations and suggestions herein are made without guarantee or representation as to results. We recommend that you make adequate tests in your laboratory or plant to determine if this product meets all your requirements.