



# APPLICATION GUIDE

WITH TECHNICAL DATA INFORMATION

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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 : PMS 4516 Illusion Green

Description: The Prismatic Powders Illusion Series is a Two Coat system requiring the use of a Prismatic Powders Illusion Base Coat along with a Prismatic Powders Top Coat.

Suggested Cure Time and Temperature

- Flash time prior to Top Coat 2 minutes after powder flows to a gloss with oven temperature at 375°F
- Follow the cure schedule for the Top Coat that is being Used for final cure .

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

Special Instructions / Notes :

For optimal results the base coat should be applied at a thickness of 2.0-3.0 mils. Optimal flash time, 2 mins. after gel out . Top coat should be applied after the part has completely cooled. Please note, color will not be correct until the top coat has been applied. The base coat must cure with the top coat to achieve the proper color. Less than 100% top coat coverage will yield inconsistent results in color. The Illusion series base coat is not tribo compatible.

**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: 1.7 ± .05

Storage: Store in cool dry environment 70° F

Shelf Life: 6-8 Months

Application :

Electrostatic spray to cold substrate

Recommended Mil Thickness: 2.0 -3.5 Mils

Equipment information :

Fluidized Hopper Recommended

Not Recommended for tribo 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.

Testing parameters are as follows :

- **UV and Weather Resistance** The test panel undergoes several cycles of UV exposure, followed by condensation exposure. All cycles are repeated continually until analysis is stopped.
- **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.
- **Salt Spray** Corrosion testing is used to evaluate the relative corrosion resistance of coated panels exposed to a salt spray or fog at an elevated temperature. Coated panels are placed in an enclosed salt spray chamber at a 15-30 degree angle and subjected to a continuous indirect spray of a neutral (pH 6.57.2) salt water solution. The chamber/cabinet is kept at an operating temperature of 95°F and fogging a 5% salt solution at the required 1.0-2.0mL/hr.

### Testing Results

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

Cure Method : F:4m 400°F/C:18M 375°F

Average Mil Thickness of panels : 2.5-6.5 Mils

KV settings- 50

- |                                      |                            |
|--------------------------------------|----------------------------|
| • <b>Gloss Unit</b>                  | <b>85+</b>                 |
| • <b>Gloss Level</b>                 | <b>High Gloss</b>          |
| • <b>Adhesion</b>                    | <b>5B Average Adhesion</b> |
| • <b>Impact Performance Direct</b>   | <b>60 Inch-pounds</b>      |
| • <b>Impact Performance Indirect</b> | <b>60 Inch-pounds</b>      |
| • <b>Pencil Hardness</b>             | <b>H-2H</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 10/9/2020

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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.