



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 topcoat to maintain the appearance and prevent oxidation on metallic powder coatings. Always coat a sample before any production to determine if this product meets all your requirements.

Product Number and Name: HSS 2345 Polished Aluminum

Suggested Cure Time and Temperature: 10 Minutes at 375°F

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

#### Special Instructions / Notes:

A clear top coat is recommended for exterior use

To maintain the Polished Aluminum like appearance, a topcoat of PPS 2974 Clear Vision is required. Alternatively, any Prismatic transparent, candy, or various gloss clears, may be used depending on your desired finish.

Polished Aluminum should be flashed prior to top coat being applied. For optimal results, the base coat should be applied at a thickness of 2.0-3.0 mils. Optimal flash time is 4 minutes after gel out. Top coat should be applied after the part has cooled.

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

#### Powder Properties:

Thermosetting Powder Coating

Powder type: Hybrid

Specific Gravity: 1.18 +/- 0.05

Storage: Store in a cool, dry environment 70° F

Shelf Life: 6-8 Months

#### Application:

Pretreatment and proper prep to substrate before powder coating are critical factors in developing maximum corrosion resistance and maximizing the product's lifetime.

Electrostatic spray to a cold substrate

Recommended Mil Thickness: 2.0-3.0 Mil

#### Equipment information:

Fluidized Hopper Recommended

Not Recommended for tribo application

Suggested Nozzle: The standard nozzle used at prismatic powders is the conical tip with a diffuser.

Alternative tips can be used but may cause color variation.

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-pounds to 160 inch-pounds, with 160 inch-pounds 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: 10 Minutes at 375°F

Nozzle type used for testing: Conical

Average Mil Thickness of panels: 2.0-3.0 Mils

KV settings- 50

- |  |                        |
|--|------------------------|
| • <b>Gloss Unit</b>                          | <b>85+ GU</b>          |
| • <b>Gloss Level</b>                         | <b>High Gloss</b>      |
| • <b>Adhesion</b>                            | <b>5B</b>              |
| • <b>Flexibility or Conical Mandrel Bend</b> | <b>100% Resistance</b> |
| • <b>Impact Performance - Direct</b>         | <b>160 Inch-pounds</b> |
| • <b>Impact Performance - Indirect</b>       | <b>160 Inch-pounds</b> |
| • <b>Salt Spray</b>                          | <b>1,000 HRS</b>       |
| • <b>Pencil Hardness</b>                     | <b>2H-H</b>            |

#### **PLEASE NOTE**

Not all powder coating is recommended for exterior use; it is the buyer’s responsibility to ensure they purchase a product 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 topcoats applied to interior finishes may improve UV resistance and durability of the product 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 products manufactured after 9/25/2020

Revisions: 5/6/2022

NIC Industries, Inc. does not warranty the use or application of its manufactured materials or supplies. Our only obligation shall be to replace any defective materials supplied by us after determining them to be faulty. NIC Industries, Inc. assumes no liability for damages of any kind, and the user accepts the product “as is” and without any warranties, expressed or implied. The suitability of the product or intended use shall be the user’s sole responsibility.

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