



Ameron HY539/6593

Silver Orbiter Hybrid Powder Coating

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Description and Features

New developments have produced a cost effective alternative to bonded chrome like silvers. Whilst it is not a bonded product itself, the appearance has a bright lustre and results are vastly improved over the non-bonded silvers available. Silver Orbiter is an epoxy / polyester formulation that offers coatings with the following unique properties. These properties include:

- Cost effective chrome like finish.
- Greatly improved lustre.
- Excellent mechanical properties.
- Good powder transfer and spray characteristics (some arcing on high voltage guns possible).
- High coverage at film builds over 45µm

Uses

HY539 / 6593 Silver Orbiter powder coating is suitable for a wide variety of decorative applications, such as:

- Ceiling panels and supports.
- Furniture, craftware products.
- Toys.
- Other items that require distinctive chrome like appearance.

Mainly for interior, though light duty exterior (with clear topcoat) applications are possible. In areas where items will have a high level of handling, it is recommended that a clear topcoat be applied to protect the finish from tarnishing. Surface finish does show some orange peel effect.

Pre-treatment

CRS: Zinc or iron phosphate

Zinc Coated Steels: Zinc phosphate or chromate conversion

Aluminium Alloys: Chromate conversion

Application

Corona electrostatic spray equipment. (It is recommended that suitable metallic spray adapters be used).

Application Notes

The recommended film thickness for the cured powder film is between 50 and 80 microns. Due to the nature of the product it is not expected to be reclaimable on applications.

Curing

Standard conditions are 10 mins @ 190°C (object temp). It is not recommended that temperatures of less than that stated be used, as performance will be impaired.

Handling

It is highly advised that care is taken in handling items coated with HY539 / 6593 Silver Orbiter powder coating. It is suggested that light clean cotton gloves be worn when handling finished items prior and during installation.

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Availability

Made to individual order.

Substrates

Cold rolled mild steel (CRS)

Zinc coated steels

Aluminium alloys

Specific Gravity

1.6

Film Properties

Mechanical tests carried out on lightweight, zinc phosphate pre-treated panels with 50 micron gloss finish film. Panels baked for 10 mins @ 190°C (object temp).

Mechanical

Flexibility (conical mandrill) ASTM D522 Pass 3mm

Adhesion (2mm crosshatch) BS3900 Pass GTO

Impact resistance BS3900-E3 Pass 120-inch lb

Pencil Hardness 2H

Chemical

Salt spray (ASTM-B117) Pass @ 1000 hours.

<3mm from scribe.
Oxidised surface finish.

Cyclic humidity (BS3900-F7) At 40°C, pass no blistering

Exterior Durability

Direct UV light exposure will result in some chalking and loss of gloss after 3-6 months. UV light filtered by glass does not affect chalking. For continuous exposure to exterior weather conditions please contact your local Ameron Coatings Technical Sales Representative.

Health and Safety

Ameron powder coatings can generally be regarded as inherently non-toxic. Powder on the skin should be washed off using soap and water. Avoid breathing airborne dusts. Wear an approved dust mask. Ovens should be exhausted to atmosphere. Users should refer to "Code of Safe Practice" as supplied by Paint Makers Association (UK) and NZ Department of Labour.

Storage and Packaging

Packaging: 20kg cardboard boxes (plastic bag inners).

Shelf life: 12 months min @ <35°C. All bags must be sealed before storage.

Store in a cool, dry area.

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