



PE546/6601 NATURAL STEEL

MAY 2000

Satin Metallic Polyester



Product Data

Continuing with PPG Envirocron's advances in exterior durable metallic effect powder coatings comes PE546/6601 Natural Steel. The appearance is characterised by its name – NATURAL STEEL – an industrial, smooth metallic finish.

PE546/6601 is based on exterior durable, sparkle pigment polyester formulation that offers coatings with the following unique properties. These properties include:

- Superb natural steel like finish
- Aesthetic metal effect
- Good powder transfer and spray characteristics (some arcing on high voltage guns possible, and some shading possible)
- Advanced polyester binder system
- Pigment selection from the most durable and light fast available
- Can be applied to a range of metal substrates, as well as aluminium

Uses

PE546/6601 Natural Steel is suitable for a variety of decorative applications, such as:

- Outdoor furniture
- Other items that require a distinctive natural steel appearance

The coating's surface is rich in metallic pigment. As such, care must be exercised not to scratch or burnish the surface.

Substrates

Cold rolled mild steel (CRS)

Zinc coated steels

Aluminium alloys

Specific Gravity

1.6.

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 adaptors be used).

PE546/6601 is not suitable for tribostatic application.

The recommended film thickness for the cured powder film is between 60 and 90 microns. The minimum allowable film build is 60 microns. Due to the nature of the product, it may not be reclaimable. An initial test should be done to determine if it is practical to reclaim. Careful selection of application parameters will offer best results.

Test prior to use.

Ensure effect achieved meets your requirements.

Curing

Standard conditions are:

10 mins @ 180 deg C (object temp).

Film Properties

Mechanical tests carried out on lightweight, chromate pre-treated panels with 60 micron gloss finish film. Panels baked for 10 mins @ 180°C (object temperature).

Mechanical:

Flexibility (conical mandrel) ASTM D522 Pass 3mm

Adhesion (2mm crosshatch) BS3900 Pass GTO

Impact resistance BS3900-E3 Pass 160-inch lb

Pencil hardness: Pass H

Chemical:

Salt spray (ASTM-B117)	Pass @ 1000 hrs <1mm from scribe.
Cyclic humidity BS3900 F7	At 40 deg C, pass no blistering.

Cleaning / Maintenance

It is important that maintenance be done on a regular basis.

Dirt deposits from the atmosphere are often capable of causing damage to the coating surface and must be regularly removed. It is recommended that the coating be washed on a routine of three monthly intervals in marine environments and in areas prone to atmosphere fallout

- Dirt and deposits should be removed with a wet sponge to prevent scratching.
- Cleaning should be done using a dilute solution of a mild liquid detergent in warm water.
- After cleaning always rinse thoroughly with clean fresh water.

Storage and Packaging

Packaging: Cardboard boxes – 20kg. Bulk packs available to suit your requirements.

Shelf Life: 12 months minimum @ <30° C/dry. All bags must be sealed before storage.

Store in a cool, dry area.

Health & Safety

PPG Envirocron powder coatings can generally be regarded as inherently non-toxic.

Powder on the skin should be washed off using soap and water. Powder in the eyes should be washed out with water for 15 minutes.

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.

For further information, refer to the Material Safety Data Sheet for this product.

CAUTION:

Improper use and handling of this product can be hazardous to health.

This product is to be used by those knowledgeable about proper application methods. PPG Industries makes no recommendation about the types of safety measures that may need to be adopted because these depend on application environment and space, of which PPG Industries is unaware and over which it has no control.

If you do not fully understand these warnings and instructions or if you cannot strictly comply with them, do not use the product.

This product is for professional use only. Not for residential use.

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PPG Industries NZ Ltd • 5 Monahan Road • Mt Wellington • Auckland • Phone 0800-263 766 • Fax 0800-659 377
PPG Industries Australia Ltd • McNaughton Rd • Clayton • VIC 3169 • Phone 1300 305 699 • Fax 1300 304 214