



# PE54 SERIES

NOVEMBER 2002

## Fast Cure Polyester Powder Coating



### Product Data

Both local and overseas users have proven that for exterior application, polyester powders give an outstanding balance of properties. Hence with the latest European technology a range of superior polyesters (PE) is offered with the following properties:

- Excellent weathering properties
- Excellent gloss retention and chalk resistance
- Coating efficiencies with various cure options
- Very good gloss and flowing out of the powder
- Superior spraying characteristics giving high powder transfer and utilisation
- Excellent abrasion and corrosion resistance
- Large range of colours
- Range of gloss and textures available

### Uses

Areas of use are mainly where good exterior weathering properties are required, such as:

- Interior / exterior furniture
- Alloy wheels
- Outdoor lighting
- Window and door knobs, latches and hinges
- Architectural fittings
- Industrial and commercial fittings
- Air conditional units and grills, ducting etc
- Other items that require a distinctive smooth natural appearance.

### Colour Availability

Extensive range made to individual colours, texture and gloss levels. Minimum run of nominal 80kg for non-stock colours.

### Specific Gravity

1.2 to 1.8, dependent on colour

### Substrates

Cold rolled mild steel (CRS)  
Zinc coated steels  
Aluminium alloys

### Pre-treatment

CRS:	Zinc or iron phosphate
Zinc Coated Steels:	Zinc phosphate or chromate conversion
Aluminium Alloys:	Chromate conversion

### Application

The Polyester Fast Cure series is suitable for Corona Electrostatic spray equipment.

Fluidised methods can be used.

For information regarding tribostatic application, please contact your local PPG Envirocron Technical Sales Representative.

### Curing

10 mins @ 180 deg C or 7 mins @ 200 deg C Peak Metal Temperature (PMT). PMT is the temperature at which timing begins for curing cycle.

Cure temperatures or above 200 or below 180 deg C are not recommended.

## Film Properties

The recommended thickness for the cured powder film is 60-90 microns. It is not advised to go below film thickness of 50 microns or exceed 120 microns.

Mechanical tests carried out on lightweight, zinc phosphate treated panels with 60 microns gloss finish film.

Panels baked for 10 mins @ 180 deg C.

### Mechanical

Flexibility (conical mandrill) ASTM D522: Pass 3mm

Adhesion (2mm crosshatch) BS3900-E6: Pass GTO

Erichson Cupping BS3900-E4: Pass > 7mm

Hardness (4000g) BS3900-E2: Pass (no penetration)

Impact Resistance BS3900-E3: 160 inch.lb 2.5mm Pass

### Chemical

Salt spray (ASTM-B117): Pass @ 1000 hours, <3mm from scribe.

Cyclic Humidity BS3900-F7: Pass no blistering or loss of gloss after 1000.

### Temperature Stability

Excellent for continuous exposure up to 100 deg C.

### Chemical & Solvent Resistance

Generally good resistance to acids, alkalis, oil and most solvents at normal temperatures.

### Sulphur Dioxide Resistance

No colour change, softening, blistering or loss of adhesion after 240 hours.

## 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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