



# EL53 SERIES

JULY 2001

## Epoxy Ripple Powder Coating



### Product Data

Epoxy resins were the first type to be used in the manufacture of powders and still offer advantages mainly in areas where superior chemical resistance and mechanical properties are required.

Main advantages are:

- Excellent adhesion and hardness
- Excellent chemical resistance
- Very fast or low bake formulations available
- Full range of colours and gloss levels
- Very good spraying characteristics giving high powder transfer and utilisation
- Excellent abrasion and corrosion resistance
- The ripple finish of the surface enables the masking of minor surface defects

### Uses

The epoxy ripple series is mainly used for interior application and articles that are to be exposed to severe chemical environments, such as:

- Indoor furniture e.g. chairs and tables
- Garden tools e.g. lawnmowers, rakes, forks and shovels
- Industrial waste equipment e.g. valves, pipes, tanks
- Pipeline coatings e.g. gas, water, fuel pipelines
- Electrical switch gear, cabinets, cable ducting

### Substrates

Cold rolled mild steel (CRS)

Zinc coated steels

Aluminium alloys

### Specific Gravity

1.2 to 1.8, dependent on colour

### Pre-treatment

CRS: Zinc or iron phosphate

Zinc Coated Steels: Zinc phosphate or chromate conversion

Aluminium Alloys: Chromate conversion

### Application

The epoxy ripple series is suitable for Corona electrostatic spray equipment.

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

### Curing

Standard curing conditions are:

10 minutes @ 190°C (object temperature).

It is not recommended that temperatures of less than that stated be used as performance will be impaired.

### Film Properties

The recommended thickness for the cured powder film is 80-100 microns. We advise not to go below film thickness of 50 microns or exceed 120 microns. Mechanical tests carried out on lightweight zinc phosphate pre-treated panels with 50 micron (DFT) finish film. Panels baked for 10 mins @ 190°C (object temp).

### Mechanical

Flexibility (conical mandrill) ASTM D522 Pass 3mm

Adhesion (crosshatch) BS3900-E6 Pass GTO

Rev impact resistance BS3900-E3 Pass 160 inch lb

Pencil hardness AS1580.405.1 HB

### Chemical

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

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

#### **Temperature Stability**

Excellent for continuous exposure up to 100 deg C.

#### **Chemical & Solvent Resistance**

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

#### **Exterior Durability**

Direct UV exposure will result in some chalking and loss of gloss, however UV light filtered by glass does not affect chalking.

For continuous exposure to weather it is recommended that PPG Envirocron polyesters be used.

#### **Storage and Packaging**

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

Shelf Life: 12 months minimum @ 35° 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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