

PRODUCT NAME**Epoxy Polyester Powder**

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 PRODUCT CODE 617 SERIES

**PRODUCT DESCRIPTION**

HMG Epoxy Polyester Powder 617 series of powder coatings are based on a carboxylated polyester resin modified with epoxies.

Designed where the user requires a superior decorative finish for indoor use. It offers excellent flow, toughness and good chemical resistance. A range of substrates may be coated. Variants of the basic range are available offering enhanced mar resistance or lower curing schedules.

**PRODUCT PROPERTIES**

A thermosetting powder coating based on selected solid polyester resins crosslinked with an epoxy curing system.

Sheen:

Gloss >80%

Semi-gloss 60% ±

Matt 30%

Supermatt 4%

Any gloss level is available on request.

**TECHNICAL PROPERTIES**

General:

All tests carried out on degreased zinc-phosphated steel coated with white epoxy-polyester to 70µm and cured at 10 minute @ 180°C object temperature.

617 series epoxy polyesters offer:

- Good resistance to corrosion
- Good resistance against chemicals
- Excellent adhesion
- High surface hardness

Pencil Hardness: 1-3H

Flexibility-Bend Test: BS 3900: Part E1: 1970, Pass – 3/16 inch

Adhesion: Cross hatch BS 3900: Part E6: 1974, Classification Gt0 – no loss of adhesion

Erichsen-Cupping Test: BS 3900: Part E4: 1976, 5 – 10 mm depending on colour and type

Impact Test: 10 – >160 kg cm according to colour and type

**CURING INFORMATION**

Consult the box label.

Standard cure is:

6 minutes at 200°C (Object Temperature), or 10 minutes at 180°C (Object Temperature), or 20 minutes at 160°C (Object Temperature)

Note: to achieve matt finishes, the high temperature schedule is generally required.

Lower temperature curing variants are available and cure at:

10 minutes at 160 Celsius, or 10 minutes at 150 Celsius, or 10 minutes at 140 Celsius.

These products are generally restricted to semi-glosses and glosses only. These lower curing products have the same physical and chemical properties as their higher curing analogues.

**CORROSION RESISTANCE**

Salt Spray: ASTM B117, More than 500 hours with creepage of corrosion less than 2mm from scribe mark.

Kersternich Test: DIN 50018 KFW2.0S, More than 10 cycles with creepage less than 2mm from scribe mark.

Humidity Test: BS3900: F2: 1973, More than 1000 hours without effect.

**CHEMICAL RESISTANCE**

Chemical resistance, like mechanical resistance tends to improve with higher temperature cure.

Excellent Resistance Against:

- Seawater
- Tap water
- Sulphuric acid, 20%
- Phosphoric acid 30%
- Sodium hydroxide 30%
- Acetic acid 20%
- High alcohol

Limited Resistance Against:

- Hydrochloric acid conc.
- Nitric acid 30%
- Petrol
- Aromatic solvents

**COLOUR RANGE**

Any standard or submitted colour standard

**GENERAL INFORMATION**

SPECIFIC GRAVITY	1.20 – 1.70 g/cm ³ depending on colour and type
COVERAGE	From 10 – 14 m ² /kg at 60 microns film thickness
STORAGE	Store between 5°C - 25°C. When not in use, cans must be kept sealed
SHELF LIFE	When stored in cool (<25°C), dry conditions – 12 months

**CLEANING**

Ensure surfaces to be coated are dry and must be cleaned using the appropriate HMG product to remove all traces of contaminants.

HMG produce a full range of Preparatory Cleaners suitable for most cleaning and degreasing processes.

Please refer to our website for Knowledge Base article Prep-Cleaning Techniques (KNB0009) and Preparatory Cleaners from the Product Guide.

**SURFACE PREPARATION**

Please refer to Knowledge Base for details on Surface Preparation.

**HEALTH AND SAFETY**

Refer to Health & Safety Data Sheet prior to use.

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is to the best of HMG's knowledge and belief accurate and reliable as of the date indicated. However, no representation, warranty or guarantee is made as to its accuracy, reliability or completeness. It is the user's responsibility to satisfy themselves as to the suitability and completeness of such information for their own particular use. For professional use only.