

TECHNICAL DATA SHEET

## EF - EPOXY POWDER PRIMER

Product Code: EF/70665/CS1

### INTRODUCTION

OXYPLAST EP – EPOXY POWDER PRIMER is an epoxy-based thermosetting powder coating formulated to give a satin finish with very good flow-out. It is used as a primer over aluminium and zinc coated steel for long term use in heavy industrial and environmental applications.

### GLOSS AND COLOUR RANGE

Satin finish- 50-60% gloss. Beige in colour.

### APPLICATIONS

Used as a primer in such applications as heavy machinery/equipment, architectural aluminium, outdoor furniture.

### APPLICATION SCHEDULE

May be applied by electrostatic spraying using classic devices which can provide a negative tension of 60 - 80kV.

Optimal film thickness: 60 - 80µm.

The powder is cured in a suitable convection or infra-red oven.

#### Curing:

\*Partial cure of EP – EPOXY POWDER PRIMER: 5 mins @ 180°C or 10 mins @ 130°C to promote adhesion of the Polyester topcoat (or similar).

Full cure is obtained when curing the topcoat at the recommended schedule.

### SUBSTRATES AND PRE-TREATMENT

May be applied to the following substrates after the appropriate cleaning and conversion coating:

<b>Ferrous Metals</b> (cold-rolled steel, cast iron, etc.)	Iron or zinc phosphatation
<b>Zinc Surfaces</b> (galvanised steel, zinc alloy)	Chromatation or zinc phosphatation
<b>Aluminium Alloys</b>	Chromatation

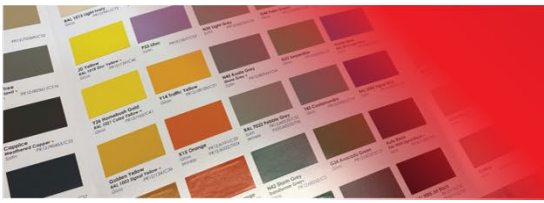
### STORAGE

At temperatures not exceeding 30°C and under dry conditions, EP – EPOXY POWDER PRIMER may be stored for up to 6 months without affecting their free-flowing properties. The coating thus obtained will still have optimal characteristics.

### PROPERTIES OF THE POWDER

<b>Melting Range (Kofler)</b>	66 - 90°C
<b>Specific Gravity (DIN 55990/3)</b>	1.40 – 1.75 (depending on colour)
<b>Particle Size Distribution</b> % above 100 µm	0%
<b>% above 32 µm</b>	50 – 60%

*In accordance with OXYPLAST policy of product development, this specification is subject to change without notice.*



## PROPERTIES OF THE COATING

### a. Physical and Mechanical

The following are properties typical of EP – EPOXY POWDER PRIMER determined on 0.8mm gauge degreased galvanised steel:

<b>Film Thickness</b>	60 - 80µm
<b>Gloss (ASTM D523,60°)</b>	60 - 100%
<b>Flow-out</b>	Very good
<b>Adhesion (DIN 53151 – 2mm spacing)</b>	GT = 0
<b>Pencil hardness (ASTM D3363)</b>	H – 2H
<b>Buchholz hardness (DIN 53153)</b>	91 – 111
<b>Sclerometre Hardness</b>	400 – 800gms
<b>Conical mandrel (ASTM D522)</b>	< 4mm
<b>Direct impact (ASTM D2794 – Ø0.625 in. ball)</b>	Min. 0.20 in. deformation
<b>Reverse impact (ASTM D2794 – Ø0.625in. ball)</b>	> 80kg.cm
<b>Erichsen cupping (DIN 53156)</b>	> 8mm
<b>Heat resistance, 30 mins at 200°C</b>	Yellowing

### b. Salt-Spray Resistance

According to ASTM B117-73 on,

<b>Chromated Aluminium, 2000 hours</b>	No blistering or loss of adhesion
<b>Zinc Phosphated Steel, 1000 hours</b>	3mm undercutting
<b>Iron Phosphated Steel, 1000 hours</b>	6mm undercutting

### c. Chemical Resistance

EP – EPOXY POWDER PRIMER is resistant to many of the common inorganic acids, bases and salts, organic acids and certain organic solvents.

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