



## FF165 SATIN-MATT EPOXY-POLYESTER POWDER COATING

TECHNICAL DATA SHEET

### INTRODUCTION

OXYPLAST FF165 is a thermosetting powder coating based on epoxy and polyester resins. It is formulated to give a satin-to-matt finish with excellent flow-out.

The outstanding decorative and protective properties of FF165 are utilised in a wide range of indoor applications.

### GLOSS AND COLOUR RANGE

Gloss levels: 30-45% at 60°. A full colour range is available; with the whites and very light shades showing slight overbake yellowing.

### APPLICATIONS

Include home and office furniture, computer hardware, ceiling panels, switchboards, etc.

### APPLICATION SCHEDULE

May be applied by electrostatic spraying using classic devices which can provide a negative tension of 60 - 80kV. The powder is cured in a suitable convection or infra-red oven.

#### Curing:

Medium cure 10 mins at 180°C

Optimal film thickness: 60 - 80µm.

### 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, FF165 powders 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>	80 - 106°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 FF165 determined on 0.8mm gauge degreased galvanised steel:

<b>Film Thickness</b>	60 - 80µm
<b>Gloss (ASTM D523,60°)</b>	30 - 45%
<b>Flow-out</b>	Excellent
<b>Adhesion (DIN 53151 – 2mm spacing)</b>	GT = 0
<b>Pencil hardness (ASTM D3363 – Staedtler Lumograph)</b>	2H
<b>Buchholz hardness (DIN 53153)</b>	100 - 111
<b>Sclerometre Hardness</b>	500 - 600gms
<b>Conical mandrel (ASTM D522)</b>	< 7mm
<b>Direct impact (ASTM D2794 – Ø0.625 in. ball)</b>	> 40kg.cm
<b>Reverse impact (ASTM D2794 – Ø0.625in. ball)</b>	> 40kg.cm
<b>Erichsen cupping (DIN 53156)</b>	> 5mm
<b>Heat resistance, 30 mins at 200°C</b>	Slight 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>	3-6mm undercutting
<b>Iron Phosphated Steel, 500 hours</b>	8-10mm undercutting

### c. Chemical Resistance

FF165 is resistant to some common inorganic acids, bases and salts, organic acids and solvents.

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