



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:

Ferrous metals (cold-rolled steel, cast iron, etc.)	:	Iron or zinc phosphatation
Zinc surfaces (galvanised steel, zinc alloy)	:	Chromatation or zinc phosphatation
Aluminium alloys	:	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

Melting range (Kofler)	:	80 - 106°C
Specific gravity (DIN 55990/3)	:	1.40 – 1.75 (depending on colour)
Particle size distribution, % above 100µm	:	0%
% above 32 µm	:	50 – 60%

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The Chosen Finish

PROPERTIES OF THE COATING

Physical and Mechanical	<p>The following are properties typical of FF165 determined on 0.8mm gauge degreased galvanised steel:</p> <p>Film Thickness : 60 - 80µm Gloss (ASTM D523,60°) : 30 - 45% Flow-out : Excellent Adhesion (din 53151 – 2mm spacing) : GT = 0 Pencil hardness (ASTM D3363-Staedtler Lumograph) : 2H Buchholz hardness (DIN 53153) : 100 – 111 Sclerometre hardness : 500 – 600gms Conical mandrel (ASTM D522) : < 7mm Direct impact (ASTM D2794 – 0.625 in. Diameter ball) : > 40kg.cm Reverse impact (ASTM D2794 – 0.625 in. Diameter ball) : > 40kg.cm Erichsen cupping (DIN 53156) : > 5mm Heat resistance, 30 mins at 200°C : Slight yellowing</p>
Salt-Spray Resistance	<p>According to ASTM B117-73 on,</p> <p>Chromated aluminium, 2000 hours : No blistering or loss of adhesion Zinc phosphated steel, 1000 hours : 3-6mm undercutting Iron phosphated steel, 1000 hours : 8-10mm undercutting</p>
Chemical Resistance	<p>FF165 is resistant to some common inorganic acids, bases and salts, organic acids and solvents.</p>

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

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