



## **OXYHIN SDN. BHD.** (393471-X)

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### **TECHNICAL DATA SHEET**

#### **OXYPLAST F5 MATT EPOXY POWDER COATING**

OXYPLAST F5 is an epoxy-based thermosetting powder coating formulated to give a matt finishes with excellent flow out. It is used indoors as a decorative coating where low-gloss finishes are desired.

#### **APPLICATIONS**

Include home and office furniture, audio equipment, lamp covers, computer hardware, ceiling panels, partitioning etc.

#### **APPLICATION SCHEDULE**

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

Curing : cure 10 mins at 200°C

Optimum film thickness : 60 - 80 µm

#### **SUBSTRATE AND PRE-TREATMENT**

In order to obtain optimal anti corrosion properties, it is advised to apply a chemical pretreatment prior to powder coating application.

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

#### **STORAGE**

At temperatures  $\leq 25^{\circ}\text{C}$  dry condition and humidity  $< 60\%$ , F5 powders may be stored for up to 6 months without affecting their free - flowing properties. The coating thus obtained will still have optimal characteristics.



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### PROPERTIES OF THE POWDER

Melting range (Kofler)	: 75 – 95°C
Specific gravity (DIN 55990/3)	: 1.40 – 1.75 (depend on colour)
Particle size distribution (Laser Particle Size Analyser)	
% above 100 µm	: Less than 5
% above 32 µm	: 50 – 65
Average particle size, µm	: 35 – 45

### PROPERTIES OF THE COATING

#### a. Physical and Mechanical

The following are properties typical of F5 determined on 0.5mm gauge degreased galvanised steel :

Film thickness (ISO 2178)	: 60 – 80 µm
Gloss (ISO 2813, 60°)	: 20 ± 5 %
Flow out	: Excellent
Adhesion (ISO 2409- 2 mm spacing)	: GT = 0
Pencil hardness (ASTM D3363-Staedtler Lumograph)	: 2H
Conical mandrel (ISO 6860)	: No cracking at 10mm diameter
Direct impact (ASTM D2794 - 0.625 in. diameter ball)	: 20kg.cm
Reverse impact (ASTM D2794 - 0.625 in. diameter ball)	: 5 kg.cm
Heat resistance, 30 mins at 200° C	: Yellowing

#### b. Salt Spray Resistance

According to ASTM B 117-73 on,

Chromated aluminium, 2000 hrs	: No blistering or loss of adhesion
Zinc phosphated steel, 1000 hrs	: 4 mm undercutting
Iron phosphated steel, 1000 hrs	: 8 mm undercutting

#### c. Chemical Resistance

F5 is resistant to many of the common inorganic acids, bases and salts, organic acids and certain organic solvents.

All the information given in this Data Sheet is the results of our research work and experience. It is given in good faith and with every belief in its accuracy but cannot be considered as a formal warranty. In accordance with OXYPLAST policy of product development, this specification is subject to change without notice.