



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

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### **TECHNICAL DATA SHEET**

#### **OXYPLAST POWDER COATING F29**

OXYPLAST F29 is an epoxy-based thermosetting powder coating formulated to give a finish with good flow out and gloss levels ranging from satin to high gloss. It is used indoors as a decorative coating and protective coating.

#### **GLOSS AND COLOUR RANGE**

Gloss levels range from satin to high gloss: 60% to 90% and above. A full colour range is available; however whites and very light shades are more sensitive to overbake yellowing.

#### **APPLICATIONS**

Include industrial machinery, indoor furniture 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 180°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

#### **PROPERTIES OF THE POWDER**

Melting range (Kofler)	: 66 - 90°C
Specific gravity (DIN 55990/3)	: 1.40 - 1.75 (depend on colours)
Particle size distribution (Laser Particle Size Analyser)	
% above 100 µm	: Less than 5
% above 32 µm	: 50 - 65
Average particle size, µm	: 35 - 45



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### PROPERTIES OF THE COATING

#### a. Physical and Mechanical

The following are properties typical of F29 determined on 0.5mm gauge degreased galvanised steel :

Film thickness (ISO 2178)	: 60 – 80 $\mu$ m
Gloss (ISO 2813, 60°)	: 60 to 90% and above
Flow out	: Good
Adhesion (ISO 2409)	: GT = 0
Pencil hardness (ASTM D3363-Staedtler Lumograph)	: H
Conical mandrel (ISO 6860)	: No cracking at 4mm diameter
Direct impact (ASTM D2794 - 0.625 in. diameter ball)	: 65kg.cm
Reverse impact (ASTM D2794 - 0.625 in. diameter ball)	: 65 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 :	3 mm undercutting
Iron phosphated steel, 1000 hrs :	6 mm undercutting

#### c. Chemical Resistance

F29 is resistant to many of the common inorganic acids, bases and salts, organic acids and certain organic solvents.

### STORAGE

At temperatures  $\leq 25^{\circ}\text{C}$  dry condition and humidity  $< 60\%$ , F29 powders may be stored for up to 6 months without affecting their free - flowing properties. The coating thus obtained will still have optimal characteristics.

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.