



OXYHIN SDN. BHD. (393471-X)

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TECHNICAL DATA SHEET

OXYPLAST F61 POWDER COATING

OXYPLAST F61 is a low-cure epoxy-based thermosetting powder coating with outstanding chemical, mechanical and corrosion resistance properties. These characteristics, together with its FDA compliance, make it suitable as a non-toxic, protective coating in many indoor applications.

APPLICATIONS

Include tapware, bathroom fittings, water-tanks, drum linings etc.

SUBSTRATES AND PRE TREATMENT

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

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

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 : 10 min at 160°C (metal temperature)

Optimal film thickness : 60 - 80 µm

PROPERTIES OF THE POWDER

Melting range (Kofler)	: 78 – 102°C
Specific gravity (DIN 55990/3)	: 1.25 – 1.75 (depending on colour)
Particle size distribution (Laser Particle size analyser)	
% above 100µm	: Less than 5
% above 32µm	: 55 – 70
Average particle size, µm	: 35 – 48



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PROPERTIES OF THE COATING

a. Physical and Mechanical

The following are properties typical for F61 determined on 0.5mm gauge degreased galvanised steel :

Film thickness	: 60 – 80 μm
Flow out	: Good
Gloss (ASTM D523, 60 °)	: > 80 %
Adhesion (DIN 53151)	: GT = 0
Pencil hardness	
(ASTM D3363 - Staedtler Lumograph)	: H
Conical mandrel (ASTM D522)	: Pass at 4mm diameter
Direct impact	
(ASTM D2794-0.625in diameter ball)	: 80kg.cm
Reverse impact	
(ASTM D2794-0.625in diameter ball)	: 80kg.cm
Heat resistance, 30mins at 160 °C	: Yellowing

b. Salt spray Resistance

According to ASTM B117-73 on

Chromated Aluminium, 1000hrs	: No blistering or loss of adhesion
Zinc phosphated steel, 1000hrs	: 3mm undercutting
Iron phosphated steel, 500hrs	: 6mm undercutting

c. Chemical Resistance

F61 is resistant to some common inorganic acids, bases and salts, organic acids and solvents.

STORAGE

At temperatures $\leq 25^{\circ}\text{C}$ dry condition and humidity < 60%, F61 powder may be stored for up to 6 months without affecting their free flowing properties. The coating thus 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.