



E6/7292/CM5 – “EPOXY BLACK MATT” EPOXY POWDER COATING

TECHNICAL DATA SHEET

INTRODUCTION

OXYPLAST E6/7292/CM5 is an epoxy-based thermosetting powder coating formulated to give a super-matt finish with excellent flow-out. It is used indoors as a general decorative coating where finishes with extremely low or virtually no gloss are required.

GLOSS AND COLOUR RANGE

Gloss levels: 1-5% at 60°. A full colour range is available; however whites and very light shades are more sensitive to overbake yellowing.

APPLICATIONS

Include home/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 - 80kV. The powder is cured in a suitable convection or infra-red oven.

Curing:

Medium cure 10 mins at 200°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, E6 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 - 104°C
Specific Gravity (DIN 55990/3)	1.40 – 1.75 (depending on colour)
Particle Size Distribution % above 100 µm	0%
% above 32 µm	50 – 60%



PROPERTIES OF THE COATING

a. Physical and Mechanical

The following are properties typical of E6 determined on 0.8mm gauge degreased galvanised steel:

Film Thickness	60 - 80µm
Gloss (ASTM D523,60°)	1 - 5%
Flow-out	Excellent
Adhesion (din 53151 – 2mm spacing)	GT = 0
Pencil hardness (ASTM D3363 – Staedtler Lumograph)	3H
Buchholz hardness (DIN 53153)	111 - 125
Sclerometre hardness	800gms
Conical mandrel (ASTM D522)	< 10mm
Direct impact (ASTM D2794 – 0.625 in. Diameter ball)	> 20kg.cm
Reverse impact (ASTM D2794 – 0.625 in. Diameter ball)	> 5kg.cm
Erichsen cupping (DIN 53156)	> 3mm
Heat resistance, 30 mins at 200°C	Yellowing

b. Salt Spray Resistance

According to ASTM B117-73 on,

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

c. Chemical Resistance

E6 is resistant to many of the common inorganic acids, bases and salts, organic acids and certain organic solvents.