



PR28 OUTDOOR DURABLE CLEAR POLYESTER POWDER COATING

TECHNICAL DATA SHEET

INTRODUCTION

OXYPLAST PR28 is a thermosetting powder coating based on saturated polyester resins specially selected for exterior use. It is formulated to give excellent clarity and flow-out besides outstanding resistance to atmospheric ageing and ultra-violet light.

PR28 provides protection against scuffing and scratching of polished or plated metallic articles, and serves a protective and decorative function when applied as a top-coat over a metallic basecoat.

GLOSS RANGE

Very high gloss of 90-100% at 60° is normally achieved.

APPLICATIONS

As a top-coat over metallic basecoat on automotive wheels etc.
Protection of polished or plated surfaces of lamps, switch & plug box covers 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: 50 - 70µm. Clarity of the film decreases with thickness.

SUBSTRATES

Not normally applied to dull or blemished metallic surfaces.

STORAGE

At temperatures not exceeding 30°C and under dry conditions, PR28 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)	:	90 - 100°C
Specific gravity (DIN 55990/3)	:	1.22
Particle size distribution,		
% above 100µm	:	0%
% above 32 µm	:	50 - 60%

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PROPERTIES OF THE COATING

Physical and Mechanical The following are properties typical of PR28 determined on 0.8mm gauge degreased galvanised steel:

- Film Thickness : 50 - 70µm
- Gloss (ASTM D523,60°) : 90 - 100%
- Flow-out : Very good
- Adhesion (din 53151 – 2mm spacing) : GT = 0
- Pencil hardness (ASTM D3363-Staedtler Lumograph) : H – 2H
- Buchholz hardness (DIN 53153) : 91 – 111
- Sclerometre hardness : 350 – 450gms
- Conical mandrel (ASTM D522) : < 4mm
- Direct impact (ASTM D2794 – 0.625 in. Diameter ball) : > 120kg.cm
- Reverse impact (ASTM D2794 – 0.625 in. Diameter ball) : > 120kg.cm
- Erichsen cupping (DIN 53156) : > 6mm
- Heat resistance, 30 mins at 200°C : Good

Salt-Spray Resistance

- According to ASTM B117-73 on,
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

Accelerated Weathering

- According to ASTM G53-88
- 1000 hours QUV test : Excellent gloss retention
- (4 hours UVB – 313 nm at 60°C : Negligible chalking
- 4 hours Condensation at 50°C)

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

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