



POWDER COATINGS

TECHNICAL DATA SHEET

Product Series: CP02PE01

Product Grade: Semi-Glossy

Product Description: Pure-Polyester based powder coatings are thermosetting powders. These type of powders are specially designed to achieve good weather resistance, gloss retention and mechanical properties of the coating system, as they are more resistant to UV lights. Compared to Pure Epoxy and Epoxy-Polyester grades, PE Series are more resistant to yellowing.

Application Areas: Pure-Polyester grade powders are developed for excellent exterior durability coatings. These are best suited for architectural aluminium extrusions, automotive parts, lighting fixtures, fencing, electrical cabinets, bicycles, air conditioner covers etc.

Pre-Treatment: A performance of a coating system is mainly depends on pretreatment process. For maximum protection, it is essential to pretreat the substrate prior to powder coating. A substrate to be coated must be free from rust, grease/oil, dust and mill scale if any.

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|-------------------|---|
| Substrate | Pretreatment method |
| Steel | Zinc Phosphate |
| Aluminium | Chromate/Chrome Free conversion coating |
| Zinc coated steel | Zinc phosphate/Chromate conversion |

Finish: Pure-Polyester grade powders are available in smooth and texture pattern.

Application Technique: Pure-Polyester powders are suitable for both electrostatic and Tribo charging system. Make sure that a compressed air must be completely free from oil, dust and water.

Storage Conditions: Powder must be stored in a dry and cool conditions, preferably below 25°C. Exposure to high humidity should be avoided.

Shelf Life: One year from the date of manufacturing. Powder should be in a sealed carton under a standard storage conditions below 25°C and relative humidity not more than 60%.

Safety Precautions: Please consult the Material Safety Data Sheet.

Test Conditions: The results given below are for Pure-Polyester powder and test have been carried out under laboratory conditions and are for guidance and reference only and hence no guarantee. Pure-Polyester powder applied on 0.8 mm chromate/non chromate aluminium panels and baked at 200°C/10 Minutes (metal temperature). Thickness of coated panels: 60-90 microns. Values may vary with color, gloss and texture finish.



| Sr. No. | Description | Standards | Data |
|---------|------------------------------------|--------------------|--|
| 1 | Chemical Grade | | Pure-Polyester |
| 2 | Appearance | | Free flowing powder |
| 3 | Finish | | Smooth finish |
| 4 | Gloss @ 60° Head | EN ISO 2813 | 77±7 |
| 5 | DFT | EN ISO 2360 | For smooth finishes, 60-90 microns |
| 6 | Curing Schedule | | Minimum : 180°C/15 Minutes (Metal temperature) Maximum : 200°C/10 Minutes (Metal temperature) |
| 7 | Color | | Wide range of colors are available including RAL. |
| 8 | Adhesion | EN ISO 2409 (2 mm) | Gt= 0. No loss of adhesion. |
| 9 | Impact resistance (Direct/Reverse) | EN ISO 6272-2 | Passes 2.5 N-m without film cracking. |
| 10 | Cupping test | EN ISO 1520 | Passes 5 mm without film cracking. |
| 11 | Flexibility test | EN ISO 1519 | Passes 5 mm without film cracking. |
| 12 | Color retention | | excellent |
| 13 | Buchholz hardness | EN ISO 2815 | Indentation resistance according to Buchholz >80. |
| 14 | Salt spray resistance | ASTM B 117 | No blistering and adhesion loss after 1000 hours. |
| 15 | Humidity resistance | DIN 50017 | No blistering and adhesion loss after 1000 hours. |
| 16 | Pencil hardness | | Passes HB-2H |
| 17 | Accelerated weather resistance | EN ISO 11341 | No chalking, excellent gloss retention and color stability after 1000 hours. |
| 18 | Drilling, Milling and Sawing Test | | No flaking of a coating. |

Note: As the products are very often used under conditions beyond suppliers' control, we cannot guarantee anything but the quality of the product itself. Capital Powder Coatings reserves the right, without notice, to alter or change the content of this Product Data Sheet.

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