



## POLY URETHANE POWDER COATING

Series Credentials Code: 75

### PRODUCT INTERPRETATION:

Urethane Polyester based powder coatings are thermosetting powder and mainly designed for getting better surface smoothness and exterior durability. It exhibits an excellent flow and attractive finish. It will features good chemical and mechanical properties and imparts excellent weather resistance. It has a excellent uv resistance properties which help to protect the coating.

### AREAS OF APPLICATION:

Epoxy polyester powders are best suited for weatherable applications like Architectural sections, automotive parts, Exterior fixtures, Garden equipment and furniture, agriculture machinery, Bicycles, fencing.

### PRODUCT FEATURES:

- ✚ Excellent Weathering and uv resistance properties.
- ✚ Excellent Chemical and Mechanical Properties.
- ✚ Excellent Flow Out.
- ✚ Good Distinctness of Image.

### GENERAL SPECIFICATION:

Chemical Nature	Urethane – Polyester Hybrid System
Supply Form	Fine powder suitable for all types of electrostatic spray equipment
Colour	Wide range available to all common colour standards and to order.
Particle Size	< 100 um, 100 % Passing
Theoretical Coverage	9 – 11 Sq. meters / Kg. Depending on colour and film thickness.
Specific Gravity	1.4 – 1.8, depending on colour.
Gloss	Full range available from full gloss to matt.
Curing Schedule	200 °C (Object Temperature) for 10 minutes.
Storage	Cool and dry below 25°C.
Shelf Life	Minimum 6 months from the date of manufacture in a sealed carton under standard conditions of storage <25 °C and RH 60%



## PERFORMANCE DATA:

<b>Mechanical Properties:</b>	
Adhesion (Cross Cut – 2mm)	No Loss of Adhesion
Impact Resistance	150 - 250 Kgs. / cm Passes
Erichsen Cupping	6 - 7 mm
Pencil Hardness	H – 3H Passes
Scratch Hardness	3 Kgs. Passes
Flexibility (Conical Mandrel)	4 mm Passes
<b>Chemical Properties:</b>	
Salt Spray Resistance	500 hrs. Passes
Humidity Resistance	500 hrs. Passes
Acid Resistance	Passes
Alkali Resistance	Passes
<b>Film Properties:</b>	
Gloss Level @ 60° Gloss Head	For Glossy > 65 to 90
Appearance	Smooth and uniform film
Flow / Leveling	Very Good
Colour Retention	Excellent

## PRE TREATMENT:

Neat Koat PU powders adhere to most metals and do not require primers. For maximum protection, it is essential to pretreat components prior to application. Articles to be coated must be free from rust, grease, oil and mill scale. Solvent vapour degreasing is usually adequate. However, in order to improve corrosion resistance the use of iron phosphate or zinc phosphate is strongly recommended. Aluminum should be pre-treated using a chromate conversion system prior to powder coating.

## APPLICATION GUIDELINES:

Neat Koat PU powders are suitable for use with all electrostatic powder spraying equipment. The powder is sprayed electrostatically onto earthed metallic substrates and an even layer of powder is deposited. When subjected to the correct temperature, the powder melts and flows to form a continuous film before curing, resulting in a coating with excellent mechanical and chemical resistance properties. It is essential that the compress air is completely filtered to avoid contamination by oil, dust or water. Jigs should be clean in order to maintain good earthing. Through cleaning of the application and recovery systems must be necessary before starting the application.

## STORAGE & HANDLING:

- ✓ Store in closed, dry and cool conditions, preferably below 25 °C. Exposure to direct sunlight, heat and high humidity should be avoided.
- ✓ Partly used bags must be tightly closed after each removal.
- ✓ For optimum result use within six months.

**Disclaimer:** The information contained herein is believed to be accurate, but is not warranted. Nothing contained herein constitutes a specification nor is intended to warrant suitability for the intended use. It is recommended to check the product carefully prior to application.