

## **POLYURETHANE PU4000 Series - Powder Coating**

### **Product Description:**

National Paints PU-4000 Series is a polyurethane-based powder coating that is specifically designed to meet the stringent requirements of the construction industry. It provides high levels of gloss retention, color stability and corrosion protection along with aesthetic looks. This powder provides uniform flow and an attractive finish even after recycling.

National Paints PU-4000 Series can be used as standalone coatings, available in a variety of colors and gloss finishes.

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### **Application Areas:**

National Paints PU-4000 Series. These products are highly recommended to meet gloss retention and color stability requirements. Primary areas of application are architectural, aluminum extrusions and claddings.

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### **Powder Application:**

National Paints PU-4000 Series can be applied by corona Electrostatic Powder Spray – 40 to 100 KV. Over-spray powder can be reclaimed using suitable equipment and recycled through the coating systems.

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### **Pre-Treatment:**

The quality of the end coating system mainly depends upon the type and the quality of the pretreatment and the top coat. As per corrosion resistance requirements, different types of pre-treatments are recommended.

Medium resistance - Iron phosphate or blast cleaning SA2.5 profiles 40-80u

High resistance - Blast cleaning SA2.5 profiles 40-80u with Zinc phosphate.

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**Powder Properties:**

Chemical Type	-:	<b>Polyurethane – PU4000 Series</b>		
Gloss @ 60° (ISO-2813)	-:	PU-4008 (Glossy)	-	90 (+/-) 10
		PU-4007 (Semi-glossy)	-	77 (+/-) 7
		PU-4002 (Matt Finish)	-	20 (+/-) 5
Particle Size	-:	60% above 32 micron sieve		
Specific Gravity	-:	1.2 – 1.6 (Depending upon the color & Finish). Theoretical Coverage		
	-:	8 – 13sq. meters/kg (as per Dry Film Thickness, Specific Gravity & Transfer efficiency)		
Curing Schedule	-:	200 °C/10-15Min & 180 °C/20-25Min (metal temp.)		

**Coating Properties:**

Cupping Test (ISO-1520)	-:	5mm Pass (No surface cracking)
Impact Test Direct (ISO-6272)	-:	50 kg/cm (No surface cracking)
Impact Test indirect (ISO-6272)	-:	50 kg/cm (No surface cracking)
Flexibility (ASTM D 552)	-:	180deg (No surface cracking)
Dry Adhesion (ISO-2409)	-:	GT – '0'
Pencil Hardness (ASTM D 3363)	-:	H-2H passes (No pencil marks)
Flexibility (ISO-1519)	-:	5 mm passes (No film cracking)

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**Storage Conditions:** Store powder in a dry cool condition. Do not exceed 28°C. Keep powder in packed condition if not in use to avoid contamination and moisture. Do not mix with any other powder.



**Shelf Life** : The powder has shelf life of one year from the date of manufacture

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Deco/Rev02. 07-04-2025

*The information in this Data Sheet is the outcome of NP research work and experience. The information contained herein is believed to be accurate but cannot be taken as a formal warranty.*

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