

POLYESTER HYPERDURABLE PH3000 Series - Powder Coating

Product Description:

National Paints PH3000 Series is an architectural, latest generation hyper hyper-durable powder coating based on innovative fluoro polymer chemistry to give enhanced performance against UV light and humidity. It is developed to satisfy the requirements of exterior durability, having advanced weather ability properties. This series offers excellent gloss retention and resistance to color change properties.

National Paints PH3000 Series is available in selected RAL Colors, other colors can be available upon technical assessment.

Application Areas:

National Paints PH3000 Series is mainly recommended for exterior architectural applications. Typical application areas are aluminium industry, cladding or where there are stringent requirements for outdoor durability.

Powder Application:

National Paints PH3000 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.

Pre-Treatment:

Substrate should be free of grease, oil, dirt, and fingerprints. Remove all contamination and apply surface treatments to get optimum adhesion and coating performance properties. The recommended types of pre-treatments for the most frequently used substrates are:

<i>For Steel</i>	-:	<i>Zinc Phosphate</i>
<i>For Galvanized Steel</i>	-:	<i>Chromate treatment</i>
<i>For Aluminum</i>	-:	<i>Chromate treatment (DIN 50939)</i>

Product Warranty:

PH3000-Series comes with a 30-year product warranty for exterior durability when applied on aluminium substrates, subject to terms & conditions.

Powder Properties:

Chemical Type	-:	Polyester Hyper Durable – PH3000 Series		
Gloss @ 60° (ISO-2813)	-:	PH3002 (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 & 190 °C/15-30 Min (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)	-:	180 deg (No surface cracking)
Dry Adhesion (ISO-2409)	-:	GT – '0'
Pencil Hardness (ASTM D 3363)	-:	H-2H passes (No pencil marks)

Corrosion Properties:

Acetic Acid Salt Spray (ISO 9227)

After 4000 hours -: Maximum 15mm² permeation for a scratch of 10cm

Humidity Resistance (ISO 6270-2)

After 4000 hours -: No permeation exceeding 1mm on both sides of the scratch

Accelerated weathering (ISO 16474)

UVB-313 – 1200 hours

4 hours @ 50°C UV -: No chalking with excellent color stability
4 hours @ 40°C Condensation and gloss retention

UVA-340 – 5000 hours

8 hours @ 60°C UV -: No chalking with excellent color stability
4 hours @ 45°C Condensation and gloss retention

Storage Conditions: Store powder in a dry cool condition. Do not exceed 33°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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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.