



POLYESTER ARCHITECTURAL PA1000 SERIES - POWDER COATING

Product Description:

National Paints PA1000 Series is an architectural powder coating based on specially selected polyester resins and hardeners. It is mainly developed to fulfil exterior durability requirements with attractive decorative finishes combined with optimum protective properties. PA1000 series offer excellent gloss retention and resistance to color change properties.

PA1000 Series is available in a variety of colors as per RAL Card, custom made shades in glossy, semi-gloss, and matt finishes. Other patterns like sandy finish, coarse textures, and metallic finishes are also available.

Application Areas:

PA1000 Series is mainly recommended for Exterior architectural applications. Typical application area is Aluminum Industry, Air Conditioner Cabinets, Garden Furniture, Playground Item, Automobile Accessories, and Light Fixtures etc.

Powder Application:

National Paints PA1000 Series can be applied by corona Electrostatic Powder Spray – 40 to 100 KV. Over spray powder can be reclaimed using suitable equipments and recycled through the coating systems.

Pre-Treatment:

Substrate should be free of grease, oil, dirt, and finger prints. 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 Aluminium</i> | -: | <i>Chromate treatment (DIN 50939)</i> |

Product Warranty:

PA1000 Series comes with 10 years product warranty for exterior durability when applied on Aluminium substrates, subject to terms & conditions.

Your World. Our Colors.

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National Paints Factories Co. Ltd.

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P.O. Box: 5822, Sharjah - U.A.E.

ISO 9001 & 14001
OHSAS 18001
CERTIFIED FACTORY

www.national-paints.com

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Powder Properties:

| | | | |
|------------------------|----|---|-------------|
| Chemical Type | -: | Polyester Architectural – PA1000 Series | |
| Gloss @ 60° (ISO-2813) | -: | PA1008 (Glossy) - | 90 (+/-) 10 |
| | | PA1007 (Semi-glossy) - | 77 (+/-) 7 |
| | | PA1003 (Matt Finish) - | 30 (+/-) 5 |
| | | PA1001 (Sandy Finish) - | 10 (+/-) 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 / 10Min & 180 °C / 15Min (metal temp.) | |
| Flow Out | -: | Very Good | |

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) |



NACL 5% Salt Spray (ASTM B117)

After 1000 hours - : No blistering & loss of adhesion;
No undercutting

Acetic Acid Salt Spray (ISO 9227)

After 1000 hours - : Maximum 15mm² permeation
for a scratch of 10cm

Humidity Resistance (ISO 6270-2)

After 1000 hours - : No permeation exceeding 1mm on
both sides of the scratch

Accelerated weathering (ISO 16474)

UVB-313 – 300hours
4hours @ 50°C UV - : No chalking with excellent color stability
4hours @ 40°C Condensation and gloss retention

UVA-340 – 1000hours
8hours @ 60°C UV - : No chalking with excellent color stability
4hours @ 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.

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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.

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