PURE POLYESTER

Standard Durable Architectural Polyester Powder Coating

TDS for PURE POLYESTER

DESCRIPTION

Genesis Pure Polyester (TGIC-cured) System is a standard durable powder coating developed for architectural aluminum components and exterior/interior applications. It provides strong weathering resistance, balanced physical properties and good electrostatic application characteristics. The coating resists chalking and changes in gloss and color during sunlight exposure when correctly applied and cured.

USES

- Architectural aluminum profiles and components
- Lighting fixtures, water heaters and home appliances
- Automotive accessories, exercise equipment, power tools and display racks
- Air conditioners, garden equipment, playground items and farm equipment

ADVANTAGES

- Standard durable TGIC-cured pure polyester
- Good weathering and balanced physical properties
- Excellent electrostatic spray characteristics
- Resists chalking and changes in gloss and color
- Good resistance to dilute acids, alkalis and oils at normal temperatures

COMPLIANCE & CERTIFICATIONS

Product grade: Standard Durable Pure Polyester (TGIC cured).
Referenced test methods: ASTM methods stated in this TDS.
Supporting documents: Current TDS and MSDS/SDS.
Project approvals/certifications: QUALICOAT Approval P-1609, as stated in the source TDS.

TYPICAL PROPERTIES

Product family	Pure Polyester
Chemical type	Polyester, TGIC cured
Color	Not specified
Film thickness	50-70 microns
Gloss @ 60 deg	As required
Particle size	Electrostatic spray
Density	1.6 +/- 0.1 g/cm3
Shelf life	12 months
Storage	<25 deg C, dry and cool
Coverage	7-12 m2/kg
VOC	Not stated

CURE PARAMETERS

Substrate / object temperature	Curing time
180 deg C	15-20 minutes
190 deg C	13-18 minutes
200 deg C	10-15 minutes

Object temperature and full cure should be verified according to part geometry and oven conditions.

PERFORMANCE TESTS

Adhesion (D-3359-93)	0
Pencil hardness (D-3363-00)	H to 4H
Impact (D-2794-93)	Pass
Flexibility (D-522-93a)	Pass
Salt spray (B-117-97)	Pass, 1000 hrs
Acetic acid salt spray	Pass, <16 mm2 / 10 cm
Constant humidity (D-2247-	Pass
Overbake stability (D-2454-	Very Good

Salt spray result includes no corrosion creep and less than 1/16 inch undercoating after 1000 hours exposure. Constant humidity result includes no corrosion area greater than 1 mm from the scribe.

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SURFACE PREPARATION

For maximum protection, architectural components should be properly cleaned and pretreated before powder coating. Aluminum components should receive a full multi-stage chromate conversion coating or a suitable chrome-free pretreatment to clean and condition the substrate. Detailed advice should be obtained from the pretreatment supplier.

Steel	Zinc phosphate
Zinc coated steel	Zinc phosphate or chromate
Aluminum	Chromate conversion
Final rinse	Normal water

The object should be tested at 20 deg C. Pretreatment quality directly affects coating performance.

APPLICATION METHOD

- Apply by manual or automatic electrostatic spray equipment.
- Unused powder may be reclaimed using suitable equipment and recycled through the coating system.
- Coverage and actual usage depend on film thickness, specific gravity, specification, application efficiency and reclaim-powder mix.

RECOMMENDED SYSTEM

Substrate prep.	Clean pretreated
Powder coating	Genesis Pure Polyester
Recommended DFT	50-70 microns
Curing	Refer to page 1.

SAFETY PRECAUTIONS

- Do not eat, drink or smoke while using the product.
- Avoid breathing dust.
- Where ventilation is insufficient, use suitable respiratory equipment.

STORAGE & SHELF LIFE

- Store in dry and cool conditions below 25 deg C.
- Shelf life is 12 months under the recommended storage conditions.

TRANSPORT & ENVIRONMENTAL INFORMATION

Hazard classification	Not stated in source TDS
Environmental classification	Not stated in source TDS
Ignition temperature	Not stated in source TDS
Transport	Not stated in source TDS
Drain precaution	Not stated in source TDS

NOTE

The information in this Technical Data Sheet is not exhaustive. Use of the product for purposes other than those specifically recommended requires prior written confirmation from Genesis and is at the user's own risk. Product performance depends on substrate condition and application factors outside our control. This information may be revised in line with experience and continuous product development.

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