



SAMRAT POLY RESINS

Manufacturer of Coating & Composite Resins · Doraha, Ludhiana, Punjab, India

TECHNICAL DATA SHEET

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ISO GELCOAT

Isophthalic Polyester Gelcoat · Mould-Surface Coat for FRP Mouldings

PRODUCT DESCRIPTION

ISO Gelcoat is an isophthalic polyester gelcoat manufactured by Samrat Poly Resins. A gelcoat is the outermost layer of an FRP moulding, applied to the mould face before any reinforcement goes in, and it gives the finished part its visible surface and its first line of protection. Isophthalic gelcoats are the grade normally specified where that surface has to hold gloss and colour through weathering, water contact or outdoor service — marine, sanitaryware and transport work being the common examples. It is a separate grade from the general-purpose GP Gelcoat Resin.

KEY FEATURES

- Isophthalic gelcoat chemistry rather than a general-purpose polyester gelcoat
- Forms the visible surface and first line of protection of the moulded part
- Applied to the mould face before any reinforcement
- Pre-accelerated, thixotropic, for brush and spray application
- MEKP catalysed, for hand lay-up and spray-up FRP moulding

RECOMMENDED APPLICATIONS

- Mould-face surface coat for FRP mouldings
- Sanitaryware and transport panel moulding
- Exterior panel moulding
- Parts whose surface must hold gloss and colour in service

PRODUCT SPECIFICATION

IDENTITY AND SUPPLY	
Resin Type	Isophthalic Polyester Gelcoat
Backbone	Isophthalic unsaturated polyester
Grade	ISO Gelcoat
Colour / Appearance	Creamy off-white to pale ivory thixotropic gelcoat
Supplied Form	Pigmented / pigmentable thixotropic liquid
Application Form	Brush and spray application
Acceleration Status	Pre-accelerated
Country of Origin	India
LIQUID GELCOAT PROPERTIES	
Viscosity — low shear	40,000 cPs at 25 °C
Viscosity — high shear	1,500 cPs at 25 °C
Thixotropic Index	26
Gel Time	8 minutes at 25 °C
Specific Gravity	1.15 g/cm ³ at 25 °C
Styrene Content	32% by weight
Flash Point	32 °C, closed cup
APPLICATION	
Process	Hand lay-up and spray-up FRP moulding
Catalyst and Dosage	MEKP at 2.0% by weight of gelcoat
Wet Film Thickness	700 µm target; 600–800 µm recommended range
Number of Coats	One complete gelcoat layer
Application Temperature	15–25 °C
Back-up / Laminating Time	30–45 minutes
CURED GELCOAT PROPERTIES	
Barcol Hardness	42
Gloss	90 GU at 60°
Water Resistance	Good to very good
Water Absorption	Approximately 18 mg after 24 h at 23 °C
WEATHERING PERFORMANCE	
Test Method	ISO 4892-2 xenon arc; ASTM G155 named as the alternative method
Exposure Duration	1,000 hours

Colour Change	ΔE 3–5
Gloss Retention	80%
STORAGE	
Shelf Life	3 months
Storage Temperature	15–25 °C, maximum 25 °C
Storage Conditions	Original tightly closed containers in a cool, dry, well-ventilated area. Protect from sunlight, heat, sparks, ignition sources and moisture.

Values are typical values supplied by Samrat Poly Resins for this grade and are not guaranteed limits.

GRADE SELECTION

For standard-duty FRP mould work where the part is not in sustained water contact or outdoor service, GP Gelcoat Resin is the general-purpose route. A gelcoat is a surface coating and not a laminating resin: the structural laminate behind it is built with a separate resin such as GP Clear Resin, or ISO Polyester Resin for chemical and water service. Share the finished part, its service condition and the required finish with your enquiry.

SAFETY & HANDLING

Handle with appropriate personal protective equipment and adequate ventilation. Polyester gelcoats contain styrene, which is flammable. Keep away from heat, sparks and open flame. **Never mix the MEKP catalyst directly with a cobalt accelerator. Add each separately — direct contact between the two can react violently.** Refer to the applicable Safety Data Sheet (SDS) before handling.

Disclaimer: The information above is based on data published by the manufacturer at the time of issue and is believed accurate. Values shown are typical and are not to be interpreted as guaranteed specifications; properties may vary within normal manufacturing tolerances between batches. Users are responsible for determining suitability for their intended application and should confirm current specifications directly with Samrat Poly Resins prior to use.