



TEREPHTHALIC FIRE-RETARDANT GELCOAT RESIN

SPR 401 FRGC · Thixotropic terephthalic fire-retardant gelcoat

PRODUCT DESCRIPTION

SPR 401 FRGC is the terephthalic fire-retardant gelcoat of the SPR 401 family: a thixotropic gelcoat with excellent mechanical properties, per the catalogue, for the mould-face surface of fire-retardant FRP components. It is listed for fire-retardant gelcoat surfaces for rail and transport composite components, automotive composite components and fire-retardant moulded FRP parts. It is supplied non-accelerated and thixotropic, with MEKP and cobalt octoate added separately during use. No fire classification or test result is published for this grade.

KEY FEATURES

- Thixotropic terephthalic fire-retardant gelcoat (SPR 401 FRGC)
- Excellent mechanical properties, per the catalogue
- White, grey or custom colour
- Typical thixotropic index 4.5–6.0; gel time 12–22 minutes at 25 °C

LISTED APPLICATIONS

- Fire-retardant gelcoat surfaces for rail and transport composite components
- Automotive composite components
- Fire-retardant moulded FRP parts

TYPICAL SPECIFICATION

IDENTITY AND SUPPLY	
Catalogue Code	SPR 401 FRGC
Resin Chemistry	Terephthalic unsaturated polyester gelcoat, fire-retardant
Supply Condition	Non-accelerated · thixotropic
Colour / Appearance	Opaque, thick pigmented liquid
Available Colours	White, grey or custom colour
Manufactured At	Doraha, Ludhiana, Punjab, India
Packaging, MOQ and Shelf Life	Confirm with Samrat Poly Resins at the time of enquiry
TYPICAL LIQUID RESIN PROPERTIES	
Viscosity, 2 rpm	12,000–18,000 cPs
Viscosity, 20 rpm	2,000–3,500 cPs
Thixotropic Index	4.5–6.0
Gel Time	12–22 minutes at 25 °C
Density	1.25–1.45 g/cm ³
Styrene Content	28–35% by weight
CURE SYSTEM	
Reference Cure System	MEKP 1.5% + Cobalt Octoate 0.4% — added separately during use

Values are typical values published by Samrat Poly Resins for this grade in the 2026 product catalogue. They describe the liquid resin at the stated reference condition and are not guaranteed limits or finished-component properties. Properties of a cured laminate, casting, compound or moulded part depend on the reinforcement, process and cure used, and must be established by the user.

GRADE SELECTION

SPR 401 FRGC is one grade in the Samrat Poly Resins range. Where the requirement is different from the applications listed above, these are the usual alternatives to review:

- Orthophthalic Fire-Retardant Gelcoat (SPR 201 FR-GC) — The SPR 201 fire-retardant gelcoat, with its own specification.
- ISO Gelcoat (SPR 301 GC) — An isophthalic gelcoat for weathering and water contact, without a fire-retardant role.
- Fire Retardant Resin (SPR 201 FR) — A halogenated fire-retardant laminating resin for the laminate behind the gelcoat.

Share the finished part, the process and the service conditions with your enquiry so the right grade can be confirmed before a trial.

SAFETY & HANDLING

Handle with appropriate personal protective equipment and adequate ventilation. Unsaturated polyester resins contain styrene, which is flammable. Keep away from heat, sparks and open flame.

Never mix the peroxide catalyst directly with the cobalt accelerator. Add each separately into the resin — direct contact between the two can react violently.

Store the resin, initiators and accelerators separately, in original sealed containers, cool, shaded and away from heat and ignition sources. Request the current safety information for this grade from Samrat Poly Resins 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.