COLPOLY 7528

Unsaturated Polyester Resin

Description:

- Unsaturated polyester resin for GRP, based on isophthalic acid and standard glycols dissolved in styrene.
- The resin is thixotropic and has a built-in accelerator system giving rapid curing and short demolding time.
- Contains color change indicator and barrier-forming agents to reduce styrene emission.
- **CAUTION**: Prolonged storage or unfavourable storage conditions may cause slight separation, hence agitation of the resin before use is recommended.

Application:

- General purpose applications hand lay-up and spray-up (boats, seats, containers, parts for car bodies, sporting equipment).
- Recommended laminate thickness applied wet-on-wet 2 - 5 mm.
- **It is recommended that all laminates that been heat-cured, exposed to direct sulight, or allowed to cure more than 48 hours at room temperature be sanded before the next laminate is applied.**

Features and benefits:

- Excellent mechanical properties.
- Medium thixotropic index (2.5 - 3.2).
- Outstanding durability

Physical characteristics of the liquid resin:

Property	Range	Method / According to standard
Appearance	Blue, opaque	
Acid value	15 - 25 mg KOH/g	MH1051 / ISO 2114
Density, 25 °C	1.10 - 1.12 kg/L	MH1028 / ISO 2811
Styrene content	40 - 44%	MH2034
Viscosity, 25 °C, #2/10 rpm	900 - 1100 mPa·s	MH1009 / ISO 3219
Flash point	34 °C	DIN 51 755
Shelf life at 25 °C in darkness	4 months	

Curing characteristics at 25 °C:

Property	Range	Method / According to standard
Gel time	15 - 25 minutes	MH3021 / MH3023 100 g resin, 2.0% MEKP-50
Time from 25 °C to peak	25 - 45 minutes	
Exothermic temperature (peak)	110 - 140 °C	

Physical characteristics of cured nonreinforced base resin:

Property	Range	Method / According to standard
Density, 20 °C	1.18 - 1.22 kg/L	ISO 1183
Tensile strength	80 - 90 MPa	ISO R 527
Elongation at break	2.0 - 3.0%	ISO R 527

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Flexural strength	110 - 130 MPa	ISO 178
E - modulus in tension	4000 - 4500 MPa	ISO R 527
Impact resistance	10 - 15 kJ/m^2	ISO 179
Heat distortion temperature	100 - 110 °C	ISO 75 A
Glass transition temperature	110 - 130 °C	ISO 537

Cure:

- It is recommended that gel time be checked in the customer's plant as age, temperature, humidity and catalyst will produce varied gel times.
- The catalyst level should not exceed 2.5% or fall below 1.0% for proper cure at ambient temperature.
- The product should not be used when temperature condition is below 18 °C.

Handling and safety precautions:

Colpoly 7528 is flammable liquid and should be kept away from naked flames. For further details, please see the relevant Safety Data Sheet.