

Product code: 458831

COLPOLY 7227

Unsaturated Polyester Resin

Description:

- » Unsaturated polyester resin for GRP, based on orthophthalic acid and standard glycols dissolved in styrene.
- » Colpoly 7227 is thixotropic and has a built-in accelerator system giving: medium to long gel time, relatively low exothermic temperature and normal demoulding time.
- » Colpoly 7227 contains colour change indicator and barrier-forming agents to reduce styrene emission.

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 3 - 8 mm.

Features and benefits:

- » Excellent mechanical and wetting properties.
- » High impact strength.
- » Outstanding durability.
- » Medium thixotropic index (2.5 - 3.5; #2, 5/50 rpm)

Approval: Lloyd's Register of Shipping; resin is in the phase Re-certification.

Physical characteristics of the liquid resin:

Property	Range	Method / According to standard
Appearance	Blue, opaque	
Acid value on solid resin	15 - 25 mg KOH/g	MH1051 / ISO 2114
Density, 20 °C	1.04 - 1.08 kg/L	MH1028 / ISO 2811
Viscosity; 23 °C, #2/10 rpm	1200 - 1700 mPa·s	MH1009 / ISO 3219
Flash point	34 °C	DIN 51 755
Shelf life at 25 °C in darkness	6 months	

Curing characteristics at 23 °C:

Property	Range	Method / According to standard
Gel time	30 - 50 minutes	MH3021
Time from 40 °C to peak	55 - 75 minutes	100 g resin, 1.0% MEKP-50
Exothermic temperature (peak)	55 - 85 °C	

Note: The information contained herein is provided in good faith and is to the best of our knowledge accurate, but we assume no liability for its accuracy or completeness. Therefore, the buyer is advised to determine the suitability of this product for the intended use. We retain the right to make any changes according to technological progress or further developments. For safety information please refer to the current Material Safety Data Sheet.

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Physical characteristics of cured nonreinforced base resin:

Property	Range	Method / According to standard
Density, 20 °C	1.20 - 1.22 kg/L	ISO 1183
Barcol hardness	40 - 45	EN 59
Tensile strength	65 - 75 MPa	ISO R 527
Elongation at break	2.0 - 3.0%	ISO R 527
Flexural strength	100 - 110 MPa	ISO 178
E - modulus in tension	3600 MPa	ISO R 527
Impact resistance	8 - 10 kJ/m ²	ISO 179
Heat distortion temperature	70 - 80 °C	ISO 75 A
Glass transition temperature	95 - 105 °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 23 °C.
- » The product should not be used when temperature condition is below 18 °C.

Handling and safety precautions:

- » Colpoly 7227 is flammable liquid and should be kept away from naked flames.
- » It is highly recommended that resin is stored at stable temperatures between 5 °C and 35 °C, preferably indoors, and away from direct sunlight.
- » Shelf life is reduced at higher temperatures and properties like viscosity and gel time of the resin might change during storage.
- » For further details, please see the relevant Safety Data Sheet.

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