

COLPOLY 7608

Unsaturated Polyester Resin

Description:

- » Unsaturated polyester resin for GRP, based on dicyclopentadiene and orthophthalic acid dissolved in styrene.
- » Colpoly 7608 is pre-accelerated, contains barrier-forming agents to reduce styrene emission and halogenated fire-retardant resin.
- » **CAUTION:** Prolonged storage or unfavourable storage conditions may cause slight separation, hence agitation of the resin before use is recommended.

Application:

- » Designed for applications where fire retardancy is required.
- » Suitable for applications in RTM and hand lay-up.
- » Used for building, transport and industrial markets and give laminates with S4 - SR2 - ST2 when tested according to DIN 5510 Part 2.

Features and benefits:

- » Good mechanical properties.
- » Outstanding durability
- » Medium / fast cure.

Physical characteristics of the liquid resin:

Property	Range	Method / According to standard
Appearance	White, opaque	
Acid value	15 - 25 mg KOH/g	MH1051 / ISO 2114
Density, 25 °C	1.11 - 1.12 kg/L	MH1028 / ISO 2811
Styrene content	31 - 34%	MH2034
Viscosity; 25 °C, #2/20 rpm	250 - 350 mPa·s	MH1009 / ISO 3219
Flash point	34 °C	DIN 51 755
Shelf life at 25 °C in darkness	6 months	

Curing characteristics at 25 °C:

Property	Range	Method / According to standard
Gel time	10 - 20 minutes	MH 3021 / MH3023 100g resin, 2.0% MEKP-50
Time from 25 °C to peak	20 - 40 minutes	
Exothermic temperature (peak)	160 - 180 °C	

Physical characteristics of cured nonreinforced base resin:

Property	Range	Method / According to standard
Density, 20 °C	1.19 - 1.21 kg/L	ISO 1183
Barcol hardness	35 - 40	EN 59
Tensile strength	60 - 65 MPa	ISO R 527
Elongation at break	3.0 - 3.5%	ISO R 527
Flexural strength	90 - 110 MPa	ISO 178
E - modulus in tension	3500 - 3700 MPa	ISO R 527
Impact resistance	10 - 15 kJ/m ²	ISO 179
Heat distortion temperature	75 - 80 °C	ISO 75 A
Glass transition temperature	90 - 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 25 °C.
- » The product should not be used when temperature condition is below 18 °C.

Handling and safety precautions:

- » Colpoly 7608 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.

Disclaimer

This data is based on experience, for its completeness, we assume no liability. As we take no influence on the processing, it lies within the obligation of the customer to test, whether it is suitable for the intended purpose, before using the product. Any change in the processing procedure, the environmental conditions or the failure to comply with instructions may unfavorably influence the result. This Technical Datasheet is available on our website at www.helios.si. Should there be any discrepancies between this document and the version that appears on the website, then the version on the Website will take precedence.

TECHNICAL DATASHEET

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Issue Date: April 2025

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