

COLVINYL VE 110 I

Epoxy Vinyl Ester Resin

Description:

Pre-accelerated low viscosity epoxy (based on BPA) vinyl ester resin dissolved in styrene.

Application:

- » Suitable for several applications using the infusion process.
- » Suited for use in manufactured for construction purposes where better weather and hydrolytic stability are required, especially for large marine structures: sailing boats, yachts, etc.

Features and benefits:

- » Optimal wetting of the glass fibre.
- » Good mechanical properties and excellent corrosion resistant.
- » Good outstanding toughness and fatigue properties.

Physical characteristics of the liquid resin:

Property	Range	Method / According to standard
Appearance	Clear	
Acid value	max. 15 mg KOH/g	MH1051 / ISO 2114
Density, 25 °C	1.09 - 1.11 kg/L	MH1028 / ISO 2811
Styrene content	37 - 39%	MH2034
Viscosity; 25 °C, #2/60 rpm	180 - 200 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	110 - 135 minutes	MH3021 / MH3023 100 g resin, 1.5 g Trigonox 249

Physical characteristics of cured nonreinforced base resin:

Property	Range	Method / According to standard
Density, 20 °C	1.20 - 1.15 kg/L	ISO 1183
Barcol hardness	35	EN 59
Tensile strength	85 - 90 MPa	ISO R 527
Elongation at break	4.5 - 5%	ISO R 527
Flexural strength	130 - 140 MPa	ISO 178
E - modulus in tension	3300 - 3400 MPa	ISO R 527
Heat distortion temperature	105 - 110 °C	ISO 75 A
Glass transition temperature	125 - 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. 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:

COLVINYL VE 110 I is flammable liquid and should be kept away from naked flames. 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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