

COLPOLY 732-D3

Unsaturated Polyester Resin

Description:

Unsaturated polyester resin based on dicyclopentadiene (DCPD), orthophthalic acid and standard glycols dissolved in styrene.

Application:

- » Suitable for all marble casting applications, recommended for tubs, shower pans and complicated parts.
- » The resin has exhibited their versatility in helping meet the thermal shock test requirements on finished parts.

Features and benefits:

- » Good mechanical properties.
- » Excellent suspension of fillers.
- » Resistance to warping and cracking.

Physical characteristics of the liquid resin:

Property	Range	Method / According to standard
Appearance	Clear	
Acid value	20 - 33 mg KOH/g	MH1051 / ISO 2114
Density, 25 °C	1.10 - 1.13 kg/L	MH1028 / ISO 2811
Styrene content	34 - 37%	MH2034
Viscosity; 25 °C, #2/10 rpm	350 - 400 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	17 - 21 minutes	MH 3023 100g resins, 0.9% Co Acc. 1% 1.0% MEKP - 50
Time from gel to peak	10 - 20 minutes	
Exothermic temperature (peak)	140 - 160 °C	

Physical characteristics of cured nonreinforced base resin:

Property	Range	Method / According to standard
Tensile strength	60 - 70 MPa	ISO R 527
Elongation at break	2.0 - 3.0%	ISO R 527
Flexural strength	85 - 105 MPa	ISO 178
E - modulus in tension	3300 - 3500 MPa	ISO R 527
Impact resistance	8 - 12 kJ/m ²	ISO 179
Heat distortion temperature	70 - 80 °C	ISO 75 A

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 732-D3 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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