

COLPOLY 779

Unsaturated Polyester Resin

Description:

- » Unsaturated polyester resin based on maleic acid and standard glycols dissolved in styrene.
- » The resin can be readily thickened with magnesium oxide.

Application:

Resin is designed for use in producing bulk mould compound (BMC), sheet moulding compound (SMC).

Features and benefits:

- » High low shrink SMC/BMC application.
- » High resistance to heat deformation.
- » High reactivity and high viscosity.

Physical characteristics of the liquid resin:

Property	Range	Method / According to standard
Appearance	Transparent	
Acid value	18 - 22 mg KOH/g	MH1051 / ISO 2114
Density, 20 °C	1.10 - 1.13 kg/L	MH1028 / ISO 2811
Solids content	63 - 66%	MH1155 / ISO 3251
Viscosity, 23 °C	1750 - 2150 mPa·s	MH1009 / ISO 3219
Colour	max. 140 APHA	MH1125 / ISO 6271
Refractive index, 23 °C	1.516 - 1.520	MH1035 / DIN 51423 P1
Water content	0.05 - 0.15%	MH1041
Flash point	34 °C	DIN 51 755
Shelf life at 25 °C in darkness	6 months	

Curing characteristics at 140 °C:

Property	Range	Method / According to standard
Time from 40 °C to 140 °C	50 - 60 seconds	MH3026 Glass tube, 100g resin 1% TBPB
Time from 40 °C to peak	110 - 120 seconds	
Exothermic temperature (peak)	230 - 250 °C	

Physical characteristics of cured nonreinforced base resin:

Property	Range	Method / According to standard
Density, 20 °C	1.21 - 1.23 kg/L	ISO 1183
Tensile strength	25 - 45 MPa	ISO R 527
Elongation at break	1.0 - 2.0%	ISO R 527
Flexural strength	80 - 100 MPa	ISO 178
E - modulus in tension	3800 - 4200 MPa	ISO R 527
Impact resistance	8 - 12 kJ/m ²	ISO 179
Heat distortion temperature	120 - 130 °C	ISO 75 A
Glass transition temperature	180 - 200 °C	ISO 537

Handling and safety precautions:

Colpoly 779 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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Page: 2/2