

COLPOLY 783-02

Unsaturated Polyester Resin

Description:

Unsaturated polyester resin based on isophthalic acid modified maleates and standard glycols dissolved in styrene.

Application:

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

Features and benefits:

- » High crack resistance.
- » 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 on solid resin	15 - 18 mg KOH/g	MH1051 / ISO 2114
Density, 20 °C	1.11 - 1.13 kg/L	MH1028 / ISO 2811
Non-volatile matter	65 - 68%	MH1155 / ISO 3251
Viscosity, 23 °C	3600 - 4000 mPa·s	MH1009 / ISO 3219
Refractive index, 23 °C	1.536 - 1.538	MH1035 / DIN 51423 P1
Water content	0.03 - 0.10%	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 - 140 °C	60 - 90 seconds	MH 3026 glass tube 100 g resin, 1.0% TBPB
Time from 40 °C to peak	120 - 150 seconds	
Exothermic temperature (peak)	240 - 260 °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
Tensile strength	60 - 80 MPa	ISO R 527
Elongation at break	2.5 - 3.5%	ISO R 527
Flexural strength	80 - 100 MPa	ISO 178
E - modulus in tension	3600 - 4000 MPa	ISO R 527
Impact resistance	23 - 27 kJ/m ²	ISO 179
Heat distortion temperature	95 - 110 °C	ISO 75 A
Glass transition temperature	115 - 130 °C	ISO 537

Handling and safety precautions:

Colpoly 783-02 is flammable liquid and should be kept away from naked flames. For further details, please see the relevant Safety Data Sheet.

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