

COLPOLY 736 WAT

Unsaturated Polyester Resin

Description:

- » Unsaturated polyester resin for GRP, based on dicyclopentadiene and orthophthalic acid dissolved in styrene.
- » The resin is white pigmented (W), pre-accelerated (A) and low thixotropic (T) to prevent sedimentation of inorganic fillers.
- » Resin contains color change indicator and barrier-forming agents to reduce styrene emission.
- » **CAUTION:** Prolonged storage or unfavorable storage conditions may cause slight separation, hence agitation of the resin before use is recommended.

Application:

- » Resin is formulated to be filled with inorganic fillers and design for use with spray-up systems for lamination to acrylic sheet.
- » **WARNING:** Since large number of substrates are available on the PMMA/ABS market, we recommend that customers should first carry out an adhesion test on the intended substrate before any industrial application.

Features and benefits:

- » Excellent mechanical and wetting properties.
- » Rapid cure at low peak exotherm.
- » Good adhesion to acrylics (especially PMMA) and ABS.
- » Low thixotropic index (1.5 - 2.5; #2, 5/50 rpm).

Physical characteristics of the liquid resin:

Property	Range	Method / According to standard
Appearance	Light blue to white	
Acid value	15 - 25 mg KOH/g	MH1051 / ISO 2114
Density, 25 °C	1.04 - 1.08 kg/L	MH1028 / ISO 2811
Styrene content	36 - 40%	MH2034
Viscosity; 25 °C, #2/20 rpm	150 - 250 mPa·s	MH1009 / ISO 3219
Flash point	34 °C	DIN 51 755
Shelf life at 25 °C in darkness	6 months	

Curing characteristics at 20 °C:

Property	Range	Method / According to standard
Gel time	14 - 18 minutes	MH3021 / MH3023 100 g resin, 2.0% MEKP-50
Time from 25 °C to peak	12 - 18 minutes	
Exothermic temperature (peak)	140 - 160 °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	1.21 - 1.23 kg/L	ISO 1183
Barcol hardness	35 - 45	EN 59
Tensile strength	58 - 62 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	85 - 90 °C	ISO 75 A
Glass transition temperature	105 - 115 °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.

Handling and safety precautions:

Colpoly 736 WAT 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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