

COLPOLY 736 WAT

February, 2015

DESCRIPTION

Unsaturated polyester resin for GRP, based on dicyclopentadiene and orthophthalic acid dissolved in styrene.

COLPOLY 736 WAT 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 unfavourable 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!

The large number of substrates which 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

Appearance	Light blue to white		
Density at 25°C	1040 - 1080	kg/m ³	ISO 2811
Acid value	15 - 25	mg KOH/g	ISO 2114
Styrene content	36 - 40	%	MH 2024
Viscosity at 25°C, #2/20 rpm	150 - 250	mPa.s	ISO 3219 Brookfield
Flash point	34	°C	DIN 51 755
Storage life at 25°C in darkness	6	month	

CURING CHARACTERISTICS at 20°C

Gel time	14 – 18	min.	MH 3021/3023
Time from gel to peak	12 – 18	min.	100 g resin
Exothermic temperature (peak)	140 - 160	°C	2.0 % MEKP-50

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PHYSICAL CHARACTERISTICS OF CURED NONREINFORCED RESIN

Density at 20°C	1210 - 1230	kg/m ³	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 are 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.