

MECHSTER™ 9000M(I)

(Orthophthalate Polyester Resin for Infusion Molding)

Mechster™ designates a variety of unsaturated polyester resins synthesized at **Mechemco Industries**. These resins are specially engineered to meet the most diverse needs of fibreglass reinforced plastic moulding industry. Our R & D is geared to tailor **Mechster™ Resins** for the customers' most specific end application. In fact we take pride in suitably formulating the resin to improve your production efficiency as also the field performance of the FRP product.

Mechster™ 9000M(I) is a medium reactivity, high molecular weight Orthophthalic acid and standard glycols based unsaturated polyester resin tailored for the Infusion Moulding (IM) process.

Mechster™ 9000M(I) is designed to have :

- fast wet out of reinforcements
- long gel times and rapid gel to demolding times
- higher heat deflection temperature
- excellent surface finish

Components moulded from **Mechster™ 9000M(I)** exhibit good hydrolytic stability, very good mechanical strength

Physical Properties

Appearance	: Dark brownish liquid
Specific Gravity @25°C	: 1.07 ± 0.01
Viscosity @ 25°C by	
Brookfield Viscometer, cP	: 150 ± 25
Acid Value mg KOH/g	: 20 ± 3
Volatile Content (w/w) %	: 45 ± 2

Curing Behaviour

Gel time, minutes @ 25°C	: 80 - 100
1.5% v/w Catalyst (MEKP with 9% Active Oxygen)	
Cure time, minutes	: 20 - 40
Peak Exotherm Temperature, °C	: 100

Properties of Cured Mechster™ 9000M(I) (Unfilled Cast)

Specific Gravity @ 25°C	: 1.20
Tensile Strength, MPa	: 65
Elongation at Break, %	: 3.5
Tensile Modulus, MPa	: 3500
Flexural Strength, MPa	: 110
Flexural Modulus, MPa	: 3500
Heat Deflection Temperature, °C	: 85
Barcol Hardness	: 40

(Test methods as per relevant IS standards)

Uses

Mechster™ 9000M(I) is suitable for resin infusion moulding process for manufacturing of high performance FRP components.

Packing

Mechster™ 9000M(I) is supplied in non returnable M.S. drums containing 225 kgs. net and IBCs containing 1.0 MT net or ISO Tank / Tankers.

Storage & Handling

Mechster™ 9000M(I) should be stored in a cool and dry place away from sunlight, preferably below 25°C. Under these conditions, the shelf life is 3 months. The storage stability could be further improved by aerating the resin stored in barrels at an interval of about a fortnight. Resins stored in a tank need to be circulated through suitable cooling line if required.

Skin contact and vapor inhalation should be avoided during moulding because of the presence of styrene monomer. In case of irritation in the eye or skin, wash with copious amount of water. In extreme case, seek immediate medical advice. The moulding area should be sufficiently ventilated for reducing the vapour levels in the air while compounding and moulding.

The above information and recommendation are based on our extensive experience in the field and is provided only as a general guidance for application of our product. The user should verify the suitability of our product for their own specific applications. We do not warrant or assume any liability for the information provided.

Note:

Mechster 9000M(I) can be offered with the customized Gel Time and Cure Characteristics to meet specific process requirements. Kindly contact Technical Services Department for organizing the sample

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