

PROVISIONAL PRODUCT DATASHEET

MECHSTER™ 1110TA LSE

(Thixotropic Preaccelerated Isophthalate Resin).

Mechster™ designates a variety of unsaturated polyester resins synthesized at **Mechemco Resins Pvt. Ltd.** 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™ 1110TA LSE is a pre-accelerated, thixotropic and Low Styrene Emission version of Isophthalate Polyester Resin containing fading dye indicator.

Mechster™ 1110TA LSE is designed to have :

- Excellent surface finish
- Faster curing time with low exotherm
- Easier Vertical surface applications
- Minimal Sagging
- Fading dye indicator for catalyst addition
- Reduced Styrene Emission
- Excellent Interlaminar Adhesion

Component made from **Mechster™ 1110TA LSE** exhibit excellent surface finish which is smooth and glossy. This provides very good hydrolytic stability, improved mechanical strength and electrical insulation properties.

Liquid Resin Properties

Property	Nominal Values	Test Method*
Appearance	Hazy Blue Color Liquid	AM-113
Relative Density @25°C	1.08 ± 0.01	AM-103
Viscosity ¹ @ 25°C, cP	650 ± 150	AM-101
Thixotropic Index (2/20)rpm	2.5 – 3.5	AM-101
Acid Value, mg KOH/g	< 15	AM-102
Volatile Content, (w/w) %	45 ± 2	AM-106

Curing Characteristics

Standard Gel Time Test² @ 25°C

Property	Nominal Values	Test Method*
Gel Time, minute	35 ± 10	AM-110
Peak Exotherm Temperature, °C	< 135	AM-110

Note::

* Internal Test Method, available on request

1: By Brookfield Viscometer, Sp. No 2, 20 rpm

2: Determined with 50 g resin mass using 1.0 % v/w Butanox M-50

3: Fully Post-Cured

Properties of Cured Resin (Unfilled Cast)³

Property	Nominal Values	Test Method*
Specific Gravity @ 25 °C	1.17	IS 6746:1994
Tensile Strength, MPa	75	ISO 527-2
Tensile Modulus, MPa	3700	ISO 527-2
Elongation at Break, %	3.5	ISO 527-2
Flexural Strength, MPa	140	ISO 178
Flexural Modulus, MPa	3600	ISO 178
Heat Deflection Temp., °C	80	ISO 75-2
Barcol Hardness	40	ASTM 2583
Water Absorption (%)		
After 7 Days	0.1	ISO 62
After 28 Days	0.6	

Uses

Mechster™ 1110TA LSE is a suitable thixotropic resin for a single step multi layered built up using hand lay-up and spray-up techniques with reduced Styrene Emission. This results in the resin material savings.

Packing

Mechster™ 1110TA LSE is supplied in non returnable M.S. drums containing 225 kg or returnable IBCs containing 1.0 MT and ISO Tanks containing ~ 23 MT net.

Storage & Handling

Mechster™ 1110TA LSE 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.

Mechster™ 1110TA LSE has a flash point of 32°C and is classified as flammable. Containers should be kept in a cool and ventilated place away from sunlight and sources of ignition. "No Smoking" rules should be strictly enforced. In case of fire, use dry chemical, foam, carbon dioxide or water spray to extinguish the flame. Spillages may be absorbed onto sand or earth and shovelled off and disposed according to local disposal regulations.

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.

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