



TECHNICAL DATA SHEET

MP-001

Pre-accelerated Thixotropic Unsaturated Polyester Resin

SPECIAL PROPERTIES AND USE

High reactivity, low viscous pre-accelerated, thixotropic, non-wax type unsaturated polyester resin dissolved in styrene.

GENERAL PROPERTIES

MP-001 is a high reactive unsaturated polyester resin exhibiting good hardness, toughness, and impact resistance. The thixotropic of **MP-001** will give anti-sag when it is applied on vertical or leaned surfaces.

APPLICATIONS

MP-001 is a general purpose unsaturated polyester resin developed for fiber glass reinforce plastic (FRP) products such as containers, cooling tower, septic-tank, pipe, etc., for applying by hand lay-up and spray molding.

PACKING AND STORAGE

Steel drum, net weights 225 kg.

SPECIFICATION

Appearance	Pink, cloudy liquid
Acid Value (as mg. KOH/1g. Resin)	15 - 25
Viscosity (mPa.s) (Brookfield, LVT, 25° C)	250 - 450
Non-volatile (%)	58 - 62
Gel time (Min.) (2%MEKPO-50, 25° C)	9.00 – 13.00
Thixotropic Index (at 25° C)	1.5 – 3.0
Flash Point (° C) (DIN 53213)	34

STORAGE STABILITY

MP-001 must be kept away from sources of ignition and heat and not in direct sunlight. It is recommended the storage temperature should not exceed 25 °C

At 25°C (no access of air and light) storage stability is more than 6 months.



PHYSICAL PROPERTIES of cured MP-001

<u>PROPERTY</u>	<u>VALUE</u>	<u>UNIT</u>	<u>TEST METHOD</u>
Specific gravity, 25 ⁰ C	1.12	g/cm ³	ASTM-D-792
Barcol Hardness	30	-	J-934-1
Elongation	3	%	ASTM-D-638
Flexural strength	12	kgf./mm ²	ASTM-D-790
Flexural modulus	260	kgf./mm ²	ASTM-D-790
Tensile strength	6	kgf./mm ²	ASTM-D-638
Tensile modulus	218	kgf./mm ²	ASTM-D-638
Compressive strength	13.5	kpcm/cm ²	ASTM-D-695
Water absorbtion (24 hrs.)	0.14	%	ASTM-D-570

MECHANICAL PROPERTIES of MP-001 fiber glass laminate, with 30 % chopped strand mat

<u>PROPERTY</u>	<u>VALUE</u>	<u>UNIT</u>	<u>TEST METHOD</u>
Barcol Hardness	45	-	J-934-1
Elongation	2.5	%	ASTM-D-638
Flexural strength	24	kgf./mm ²	ASTM-D-790
Flexural modulus	710	kgf./mm ²	ASTM-D-790
Tensile strength	12.5	kgf./mm ²	ASTM-D-638
Tensile modulus	440	kgf./mm ²	ASTM-D-638
Water absorbtion (24 hrs.)	0.16	%	ASTM-D-570
