

PROVISIONAL PRODUCT DATASHEET

# MECHSTER 3330P

(Terephthalate Polyester Resin for Pultrusion Process)

**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 3330P** is a high reactivity, high molecular weight Terephthalic acid based unsaturated polyester resin. It is a specialty resin for the pultrusion process.

**Mechster 3330P** is designed to have :

- fast wet out of reinforcements
- rapid cures
- higher heat deflection temperature
- excellent surface finish
- higher filler loading

Pultruded components moulded from **Mechster 3330P** exhibit excellent hydrolytic stability, improved mechanical strength and electrical insulation properties.

## Physical Properties

Property	Nominal Values	Test Method*
Appearance	Pale Yellow Viscous Liquid	AM-113
Specific Gravity @25°C	1.10 ± 0.01	AM-103
Viscosity <sup>1</sup> @ 25°C, cP	1000 ± 200	AM-101
Acid Value, mg KOH/g	15 ± 3	AM-102
Volatile Content, (w/w) %	36 ± 3	AM-106

## Curing Behaviour

Catalyst	BPO - 50 (2% w/w)	TBPB (1% v/w)
Temperature, °C	82	140
Gel Time, min.	8 – 12	2-3
Cure Time, min.	10 -15	3-4
Peak Exotherm Temperature, °C	210	245

Note:

\* Internal Test Method, available on request

1: By Brookfield Viscometer

BPO - 50: Benzoyl Peroxide Paste (50 %)

TBPB: tert-Butyl Peroxy Benzoate

## Properties of Cured Resin (Unfilled Cast)

Property	Nominal Values	Test Method*
Specific Gravity	1.20	AM-201
Tensile Strength, MPa	73	ISO 527-2
Tensile Modulus, MPa	3650	ISO 527-2
Elongation at Break, %	3.0	ISO 527-2
Flexural Strength, MPa	120	ISO 178
Flexural Modulus, MPa	3200	ISO 178
Heat Deflection Temperature, °C	110	ISO 75-2
Barcol Hardness	45	ASTM 2583

## Uses

**Mechster 3330P** is suitable for manufacturing of high performance FRP components by pultrusion process.

## Packing

**Mechster 3330P** is supplied in non returnable M.S. drums containing 220 kg net or HDPE carboys containing 35 kg net.

## Storage

**Mechster 3330P** 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.

## Handling

**Mechster 3330P** 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.

*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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