

# MECHSTER™ 9000P

(Orthophthalate Polyester Resin for Pultrusion Process)

**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™ 9000P** is a high reactivity, Orthophthalic acid based unsaturated polyester resin. It is a specialty resin for the pultrusion process.

**Mechster™ 9000P** 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™ 9000P** exhibit good hydrolytic stability, improved mechanical strength and electrical insulation properties.

## Physical Properties

Appearance	: Pale yellow viscous liquid
Specific Gravity @25°C	: 1.12 ± 0.01
Viscosity @ 25°C by Brookfield Viscometer, cps	: 700 ± 250
Acid Value mg KOH/g	: 20 ± 3
Volatile Content (w/w) %	: 32 ± 2

## Curing Behaviour

Catalyst	Benzoyl Peroxide (1% w/w)	TBPB (1% v/w)
Temperature, °C	82	140
Gel Time, min.	8 - 9	2 - 3
Cure Time, min.	9 - 10	3 - 4
Peak Exotherm Temperature, °C	220	245

## Properties of Cured Mechster 9000P (Unfilled Cast)

Tensile Strength, MPa	: 60
Flexural Strength, MPa	: 110
Elongation at Break, %	: 2.0
Heat Deflection Temperature, °C	: 70
Barcol Hardness	: 45

(Test methods : IS 6746-1972, ASTM and BS where IS not available.)

## Uses

**Mechster™ 9000P** is suitable for manufacturing of high performance FRP components by pultrusion process.

## Packing

**Mechster™ 9000P** is supplied in non returnable M.S. drums containing 225 kgs. Net.

## Storage and Handling

**Mechster™ 9000P** 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™ 9000P** has a flash point of 34°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 processing.

*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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**Office:** 27, Kewal Industrial Estate, Senapati Bapat Marg, Lower Parel, Mumbai 400 013. INDIA

**Tel:** +91-22-2495 1799, 2492 2039, **FAX:** +91-22-2494 5907

**Web Site:** www.mechemco.com **E-Mail:** mechemco@vsnl.com

**Works:** A-34, MIDC, Phase II, Dombivli (East), Pin 421 204. INDIA

**Tel:** +91-251-2871998 **Tele-fax:** +91-251-2871356