

MECHSTER™ 5310W

(Bisphenol Epoxy based Vinyl Ester Resin for Filament Winding)

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™ 5310W – Bisphenol A Epoxy based vinyl ester resin, has unique properties of easy processing for Filament winding application coupled with corrosion resistance.

Mechster™ 5310W is designed to have :

- Fast wet out of reinforcements
- Excellent surface finish
- Good weatherability
- Very Good chemical and thermal resistance
- High heat deflection temperature

Physical Properties

Appearance : Amber color clear viscous liquid

Specific Gravity @ 25°C : 1.05 ± 0.01

Viscosity @ 25°C by

Brookfield Viscometer, cps : 400 ± 50

Acid Value mg KOH/g : 8 ± 2

Volatile Content (w/w) % : 42 ± 2

Curing Behaviour

Geltime, minutes @ 25°C with

1.0% v/w P110¹

1.0% v/w A103² : 10 - 12

1.5% v/w C109³

Peak Exotherm Temperature°C : 140 - 145

¹ P110: 10% DMA solution in styrene

² A103: Cobalt Octoate Solution in Styrene (3% Cobalt)

³ C109: MEKP (9% A. O.)

Properties of Cured Mechster™ 5310W

	Cast (Unfilled)
Specific Gravity, @ 25°C	1.12
Tensile Strength, MPa	83
Tensile Modulus, MPa	3200
Elongation at Break, %	5.0
Flexural Strength, MPa	120
Flexural Modulus, MPa	3300
Compressive Strength, MPa	120
Heat Deflection Temperature, °C	102
Barcol Hardness	40

(Test methods : IS 6746-1994, ASTM and BS where IS not available.)

Uses

Mechster™ 5310W is most suitable for components to be manufactured by Filament winding application needing high corrosion resistance of vinyl esters.

Packing

Mechster™ 5310W is supplied in non returnable M.S. drums containing 200 kgs. net and HDPE carboys containing 30 kgs. net.

Storage

Mechster™ 5310W resin should be stored in a cool dry place away from sunlight, preferably below 25°C. Under these conditions, the shelf life is well over 3 months.

Precautions for Handling

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.

Our information regarding our products, equipments and processes is based on extensive research and experience in the field of Applied Engineering and is provided as a general guidance in the application of our product. The user should verify the suitability of our product for their end use. We do not warrant or assume any liability for the information provide

Mechster™ is the Registered Trade Mark of Mechemco Industries

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, **Tel Fax:** +91-251-2871356