

Provisional Product Data Sheet

MECHSTER™ 8100(FC)

(Pattern Finishing Coating)

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™ 8100(FC) is a specially formulated finishing coating for patterns.

Mechster™ 8100(FC) offers excellent coverage and uniform coating which is hard and thermally stable. This can be polished and buffed to achieve the desired surface finish.

Liquid Properties

Property	Nominal Values	Test Method*
Appearance	White Viscous Liquid	AM-113
Specific Gravity @ 30°C	1.10 ± 0.02	AM-103
Viscosity ¹ @ 30°C, cP	100 -125	AM-101
Acid Value, mg KOH/g	12 – 16	AM-102

Curing Characteristics

Standard Gel Time Test² @ 30°C

Property	Nominal Values	Test Method*
Gel Time, minutes	8 - 15	AM-110
Gel to Peak, minutes	20 - 30	AM-110
Peak Exotherm Temperature, °C	> 190	AM-110

Application Method

Surface Preparation: Primed Surface, clean from oil, dust or any dirt must be used. If required use a sealer coat (Mechster™ 9000(SC)) (Recommended for Wood and other porous substrates) surface with desired smoothness can be achieved with primer coat (Mechster™ 9000G(PC)).

Mixing of Curing Additives: Add 1.0% - 2.0% v/w of A101 and 1.5% - 2.0% v/w of MEKP (Active Oxygen 9%, typically Butanox M-50) using mixing stick.

Application by Spray: Use HVLP Gun with a tip size of 1.5 mm at about 1 to 2 Bar pressure keeping maximum distance 300 mm from the surface. Apply a wet film thickness of 200 - 300 µm by wet on wet multipass spray with 50 - 100 µm wet film thickness build up per pass. Wait till film is fully cured to touch dry and not leave any finger marks on the surface. It is preferred to leave it overnight for complete cure before polishing and buffing operation.

Notes:

* Internal Test Method, available on request

1: By Brookfield Viscometer, Sp. No. 2 @ 100 rpm

2: Determined using 50 g resin + 1.5% v/w A101 + 1.5% v/w C109

A101: Cobalt Octoate(1% Cobalt)

C109: Methyl Ethyl Ketone Peroxide (9% Active Oxygen)

Polishing, rubbing and buffing: After complete cure follow suitable polishing, rubbing and buffing sequence to achieve desired gloss and surface finish. It is recommended to use water based polishing, rubbing and buffing compounds to get the best performance. Use equipments and accessories as recommended by supplier of polishing, rubbing and buffing compounds.

Coverage achieved would be 350 g/sq.m or 2.75 sq.m/kg for 300 µm and ~ 4 sq.m/kg for 200 µm dry film thickness.

Packing

Mechster™ 8100(FC) is supplied in non returnable M.S. drums containing 25 kg net.

Storage & Handling

Mechster™ 8100(FC) should be stored in a cool and dry place away from sunlight, preferably below 30°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™ 8100(FC) 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.

Caution

Store catalyst and accelerator separately. Do not allow them to come in contact with each other as they form an explosive mixture. Carry out separate addition of accelerator and catalyst to the resin mix for avoiding accidents

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.

Before Use, Stir the Material Well

Mechster™ is Registered Trade Mark of Mechemco