

MECHSTER™ 3510SA

(Acrylic Modified Resin for Solid Surface Products)

Mechster™ designates a variety of unsaturated polyester resins manufactured by *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™ 3510SA is specially formulated for tropical climates UV stabilized acrylic modified NPG orthophthalate resin for solid surface products.

Mechster™ 3510SA is designed to have :

- Excellent surface finish
- Easy dispersion of pigments and fillers
- Minimum entrapment of air bubbles
- Uniform & complete curing
- UV stability

Solid surface products made out of **Mechster™ 3510SA** are :

- Dimensionally stable and heat resistant
- Excellent weathering resistant and resistant to yellowing
- Long Term Gloss Retention
- Excellent water resistant
- Good stain resistant
- Resistant to normal house-hold chemicals
- Machinable and easily repairable
- Easily glued or joined using adhesive

Products made from **Mechster™ 3510SA** exhibit excellent surface finish with reproducible patterns. These products can be machined to cut, shape and give a finish to any design. These materials are ideal replacement for wood, natural marble and granite. Excellent durability of these products is due to less porosity, water resistance and weathering resistance

Physical Properties

Appearance	: Clear transparent liquid with slight tinge
Specific Gravity @30°C	: 1.12 ± 0.01
Viscosity @ 30°C by Brookfield Viscometer, cP	: 650 ± 100
Acid Value mg KOH/g	: 20 ± 2
Volatile Content (w/w) %	: 34 ± 2

Curing Characteristics @ 25°C

Resin Quantity, g	50	50
MEKP (9% Active Oxygen), ml	0.5	1.0
Gel Time, minutes	10-15	7-10
Total Time to Peak, minutes	20-25	15-20
Peak Exotherm Temp., °C	150-160	160-170

Typical Properties of Cured Mechster™ 3510SA

Property	ASTM	Value
Specific Gravity @ 25°C	D792	1.23
Volume Shrinkage, (%)		~6
Tensile Strength, MPa	D638M	74
Tensile Modulus, MPa	D638M	3800
Tensile Elongation at Break, %	D638M	2.2
Flexural Strength, MPa	D790M	132
Flexural Modulus, MPa	D790M	3900
Heat Deflection Temperature, °C	D648	75
Barcol Hardness	D2583	45

Uses

Mechster™ 3510SA is exclusively suitable for solid surface products which can be used as a replacement of wood, natural marble and granite.

Packing

Mechster 3510SA is supplied in M.S. drums containing 220 kg net and HDPE carboys containing 30 kg net.

Storage

Mechster™ 3510SA 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 Precautions

Mechster™ 3510SA 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. Spillage may be absorbed onto sand or earth and shoveled 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.

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.