

# Mechster™ -9000SA

(Acrylic Modified Resin for Casting Products)

**Mechster™** designates a variety of unsaturated polyester resins synthesized at **Mechemco**. These resins are specially engineered to meet the most diverse needs of moulding / casting 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 product.

**Mechster™ 9000SA** is a specially tailored pre-accelerated room temperature curable unsaturated polyester resin for artificial marble, cultured marble, onyx marble casting applications.

**Mechster™ 9000SA** is designed to have :

- Excellent color and surface finish after cure
- Easy dispersion of pigments and fillers
- Excellent air release properties
- Uniform & complete curing
- Fast curing cycles
- UV stability

Products made out of **Mechster™ 9000SA** are :

- Dimensionally stable
- Water resistant
- Resistant to normal house-hold chemicals
- Good stain resistant
- Machinable and easily repairable
- Thermal Shock Resistance

Products made from **Mechster™ 9000SA** 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, weathering resistance and thermal shock resistance.

### Physical Properties

Appearance	: Clear transparent liquid with slight tinge
Specific Gravity @ 25°C	: 1.12 ± 0.01
Viscosity @ 25°C by Brookfield Viscometer, cP	: 800 ± 200
Acid Value mg KOH/g	: 20 ± 2
Volatile Content (w/w) %	: 35 ± 2

### Curing Characteristics @ 25 °C

Resin Quantity, g	100
MEKP (9% Active Oxygen), ml	1.0
Gel Time, minutes	2 - 4
Total Time to Peak, minutes	10 - 15
Peak Exotherm Temp., °C	120-140

### Typical Properties of Cured Mechster™ 9000SA

Property	ASTM	Clear
Specific Gravity @ 25°C	D792	1.19
Volume Shrinkage, (%)	----	7~8
Tensile Strength, MPa	D638M	70
Tensile Modulus, MPa	D638M	3700
Tensile Elongation at Break, %	D638M	2.0
Flexural Strength, MPa	D790M	120
Flexural Modulus, MPa	D790M	3500
Heat Deflection Temperature, °C	D648	65
Barcol Hardness	D2583	45

**Notes:** Filled System corresponds to 40:60 w/w ratio for Resin:ATH

### Uses

**Mechster™ 9000SA** is highly suitable for artificial marble, Cultured Marble, onyx marble, applications like Sinks, Bowls, Bath-Tubs, Artistic Gift and Decorative Items, High Valued Intricate Sculptures, etc. which can be used as a replacement of wood, aluminum, natural marble and granite.

### Packing

**Mechster™ 9000SA** is supplied in non-returnable M.S. drums containing 220 kg net and returnable IBCs containing 1000 kgs net.

### Storage

**Mechster™ 9000SA** should be stored in a cool and dry place away from sunlight, preferably below 25°C. Under these conditions, the shelf life is 6 months. The storage stability could be further improved by aerating the resin stored in barrels at an interval of about a fortnight.

### Precautions in Handling

**Mechster™ 9000SA** 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. 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 provide*

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