

# Mechster™ -9000S/CM

## (Resin for Cultured Marble)

**Mechster™** designates a variety of unsaturated polyester resins synthesized at **Mechemco Industries**. 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™9000S/CM** is a specially tailored room temperature curable unsaturated polyester resin for cultured marble casting applications.

**Mechster™ 9000S/CM** is designed to have :

- Easy dispersion of pigments and fillers
- Facilitate high loading of mineral fillers
- Excellent air release properties
- Uniform & complete curing

Cultured Marble Products made from **Mechster™9000S/CM** with suitable gel coat, viz., **Mechster™ 1110NG** are ideal replacement for wood, natural marble and granite.

Products made out of **Mechster™ 9000S/CM** are :

- Dimensionally stable
- Water resistant
- Resistant to normal house-hold chemicals
- Machinable and easily repairable

### Physical Properties of Liquid Resin

Appearance	: Clear pale yellow color
Specific Gravity @25°C	: 1.11 ± 0.01
Viscosity @25°C by	
Brookfield Viscometer, cP	: 250 ± 50
Acid Value mg KOH/g	: 21 ± 2
Volatile Content (w/w) %	: 40 ± 2

### Curing Behaviour of Liquid Resin

Gel time, minutes @ 25°C, 50 gm mass	: 10 ± 2
1.0 % A101 <sup>1</sup>	
2.0% C109 <sup>2</sup>	
Peak Exotherm Temperature°C	: 160 ± 10

1: A101 - Cobalt Octoate Solution (1% Co Metal)

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

### Typical Properties of Cured Mechster™9000S/CM

Property	ASTM	Value
Specific Gravity @ 25°C	D792	1.23
Volume Shrinkage, (%)	----	~7
Tensile Strength, MPa	D638M	70
Tensile Modulus, MPa	D638M	4000
Tensile Elongation at Break, %	D638M	2.0
Flexural Strength, MPa	D790M	130
Flexural Modulus, MPa	D790M	3800
Heat Deflection Temperature, °C	D648	70
Barcol Hardness	D2583	45

### Uses

**Mechster™9000S/CM** is highly suitable for cultured marble application. 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™9000S/CM** is supplied in M.S. drums containing 220 kg net and HDPE carboys containing 30 kg net.

### Storage

**Mechster™9000S/CM** 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.

### Handling Precautions

**Mechster™9000S/CM** 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 provided.