

**HINDUSTHAN SPECIALITY CHEMICALS LIMITED** (An enterprise of The HINDUSTHAN GROUP)

(Technical data sheet)

# **HSC 1100**

(Unmodified Epoxy Resin)

Product Description	Unmodified medium viscosity liquid epoxy resin derived from epichlorohydrin and bisphenol A.
	Various curing agents are available to cure liquid epoxy resins like at ambient cure conditions (Polyamines, polyamides, amidoamines, cycloaliphatic amines, phenalkamines etc.) and at elevated temperature cure conditions (Anhydrides or other catalytic curing agent).
Features	<ul> <li>Good chemical resistance,</li> <li>Good thermal resistance,</li> <li>Excellent adhesion,</li> <li>Excellent mechanical and electrical properties,</li> <li>Good pigment wetting.</li> </ul>
Applications	<ul> <li>Adhesive,</li> <li>casting and tooling,</li> <li>civil and building,</li> <li>composites,</li> <li>solvent free and high solids coatings,</li> <li>marine and protective coating,</li> <li>potting and encapsulation.</li> </ul>

# **Product Specification**

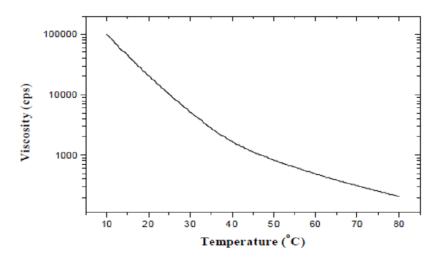
Properties	Units	Reference Standard	Value
Appearance	Visual	HTP-1	Clear Liquid
Colour	Gardener	ASTM D1544	<1
Viscosity @ 25°C	mPas	ASTM D2196	11,000 - 15,000
Epoxy Equivalent Weight	gm/eq	ASTM D1652	184 - 194
Density	g/ cc	ASTM D1475-98	$1.15\pm0.05$
Hydrolysable Chlorine	Ppm	ASTM D1726	Max 500

HTP: HSCL Testing Procedure



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# Viscosity vs. Temperature Profile



With the increase in temperature the reduction in viscosity is observed, the typical viscosity at temperatures  $>80^{\circ}$ C is < 100 mPas.

### **Processing and Storage**

Packing	HSC 1100 is available in bulk packing of drums, IBC's and container. For handling and pumping the maximum temperature shall not exceed 80°C.	
Safety & Handling	<ul> <li>Following instructions needs to be followed strictly.</li> <li>a. Keep working conditions clean. Allow fresh air in, if possible, provide ventilator.</li> <li>b. Avoid contact with human body directly, wear gloves and other personal protective equipment.</li> <li>c. Wash hands carefully with soap. If possible, wash with acetone and alcohol first, then soap and water.</li> <li>d. In case of eye contact, wash with running water for 15 minutes and then seek medical treatment.</li> </ul>	
	Refer MSDS for better instruction on Safety & Handling	
Storage Conditions	HSC 1100 should be stored at room temperature free of moisture, in the original containers kept tightly closed. If haziness or crystallises is observed on opening the can, warm the resin at 45-50°C with stirring to bring back to original conditions. Container once opened should be tightly closed to avoid contamination by foreign materials. The shelf life of the resin is 24 months.	



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