

GL 440

Structural Epoxy

Description

GL 440 is a clear adhesive based on epoxy resins. It has very good water resistance and has enhanced adhesion. This system is of low viscosity and wets the glass fiber network well. It is recommended for structural applications, laminations, and for quality boats.

Applications

1. Low viscosity, good seepage epoxy adhesive for fiber reinforced structures.

Guidelines for Use

1. Mix Part A resin and Part B hardener in the ratio of 2:1 by weight.
2. The adhesive may be spread onto surfaces with a brush or roller.
3. The adhesive will set in about 2 hours at room temperature of 25°C. Full hardness will be achieved in 2-3 days.
4. Cure time can be accelerated by heating at 120°C for only 1 hour.

Properties

Property	Test Method	Unit	Typical Value		
			Part A Resin	Part B Hardener	Mixed
Chemical type	-	-	Epoxy	Amine	
Appearance	Pen 10	-	Clear liquid	Clear yellowish liquid	
Mix ratio, by weight	-	-	2.0	1.0	
Shelf life, 25 °C	Pen 26	Month	12	12	
Pot life, 25 °C	Pen 26	Hour			1
Viscosity, Brookfield RVT, 25 °C	ASTM D2393	cP	13,700	55	1,040
Hardness, cured 25 °C for 24 hr	Pen 29	Shore D			80
Tensile strength	Pen	psi			9800
Flexural strength	Pen	psi			14000
Water boil, wt gain, 24 hr	Pen 21	%			2.0
Tg, DSC, 80°C/2hr	Pen 19	°C			65
Moisture Absorption at MSL for 168hrs		%			1.7
Coefficient Thermal Expansion, CTE1 & CTE2		ppm/k			59 173
Density Solid	-	g/cm ³			1.1

Recommended Cure

Temp.	Gel time	Cure time
80°C	15 min	2 hours
120°C	6 min	1 hour

Storage

Tightly close original container of unused product. Store in a cool and dark place.

Packaging

- 1 kg plastic bottle
- 5 kg plastic bottle

Environment, Health & Safety

This product is RoHS compliant. It does not contain any known carcinogenic, mutagenic or teratogenic components.

Contact Information

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