

GL 304

Structural Epoxy Adhesive

Description

GL 304 is a Structural Epoxy 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

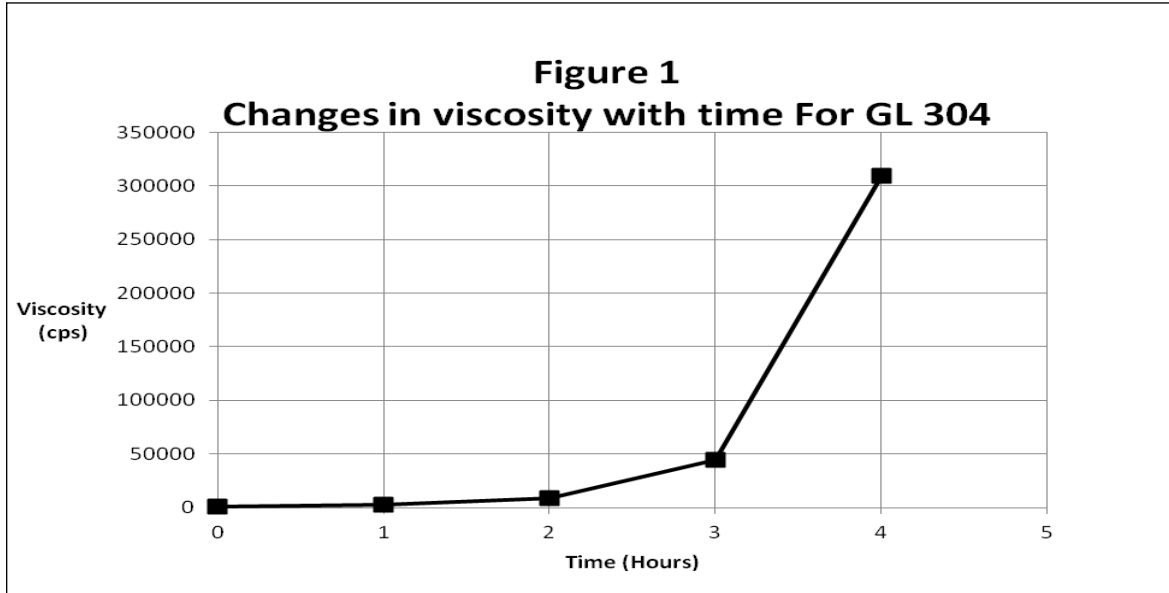
Low viscosity, good seepage epoxy adhesive for fiber reinforced structures.

Guidelines for Use

- Mix Part A resin and Part B hardener in the ratio of 3.0 : 1.0 by weight.
- Processing or pouring the mixed epoxy after 1 hour may tend to trap bubbles.
- The epoxy may be poured over the object, spread with a brush, or dispensed with a syringe.
- Blowing hot air over the surface of the epoxy can break any bubbles formed during mixing.
- Wipe off any excess uncured epoxy with a piece of dry cloth or tissue. Further cleaning may be achieved with tissue wetted with isopropanol (IPA).
- The epoxy will harden in 24 hours. Full hardness will be achieved in 3 days. Faster curing can be achieved at elevated temperatures, eg. 50° C for 3 hours.

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	-	-	3.0	1.0	
Shelf life, 25°C	Pen 26	Month	12	12	
Viscosity, CAP 2000+ Viscometer, 25°C	Pen 44	cP	11,000	15	800
Density		g/cm ²			1.106
Flexural Strength		Mpa			87
Wet Retention,%		%			1.6
Liquid Exotherm		J/g			382.6
Peak Exotherm		°C			112
Onset Exotherm		°C			75
Glass transition, T _g		°C			50
Residue Exotherm		J/g			36.06
% of Cure		%			91
Water Boil		%			0.8
Hardness, cured 25 °C for 24 hour	Pen 29	Shore D			83
Tensile strength, cured 25°C for 24 hour and 140°C for 3 hour	Pen 41	MPa			54
Young's Modulus, cured 25°C for 24 hour and 140°C for 3 hour	Pen 41	MPa			3146
Strain to failure (percentage of elongation), cured 25°C for 24 hour and 140°C for 3 hour	Pen 41	%			6.5



Recommended Cure

Alternative cure	Temp. (°C)	Cure time
A	30	24 hr
B	80	2 hr

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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