PRODUCT DATA SHEET

LC-E322
250 Degree Curing Toughened Flame Retardant Epoxy Glass Prepreg

Description

LC-E322 is a single or two side coated, 250°F (121°C) toughened flame retardant epoxy glass prepreg designed for a multitude of sandwich panel construction(s) as well as multiple ply laminates. This system can be used in a low tack version (press applications) or high tack and drape for complex contours and shapes.

Advantages

LC-E322 can be layed up using various core materials e.g. phenolic, aluminum, PVC foam without the use of additional film adhesives. Excellent strength and toughness allow for LC-E322 to perform well in a variety of finished part shapes and sizes. Low volatiles have also proven ideal for low void, multiple ply lay ups. The chemistry surrounding LC-E322 allows for higher elongation thus increased compatibility with numerous composite materials. A wide variety of cure cycles, cure temperatures and pressure also allow for LC-E322 to be very user friendly throughout processing.

Physical Properties

Density: 1.2 G/cm3 per ASTM D792
Gel Time @ 275°F (135°C): 4 -6 minutes
Glass Transition Temperature (Tg): 218°F (103°C)
Color: Cream
Tack: Medium

Shelf Life/Out Life/Storage

Shelf Life: 6 months from Certification Date
Out Life: 14 days @ 70°F (21°C)
Storage Temp: 40° F or below

Processing/Cure Cycle Recommendations

LC-E322 can be processed at temperatures from 235°F. (113°C.) for 90 minutes to 290°F. (143°C.) for 40 minutes, using low, medium or high pressure. A 250°F (121°C) cure for 60 minutes is optimal in most cases using press, vacuum bag or autoclave processing with 25 psi pressure.

Mechanical Properties				
Property	**Tested per Specification**	**R.T. (75 °F)**	**R.T. Wet**	**160 °F**
Ultimate Tensile Strength (psi)	FTMS 406	65,200	56,150	54,150
Tensile Modulus (psi x 10E6)	FTMS 406	3.6	3.4	3.4
Ultimate Compression Strength (psi)	FTMS 406	63,120	55,500	54,000
Compression Modulus (psi x 10E6)	FTMS 406	3.8	3.6	3.5
Ultimate Flexural Strength (psi)	FTMS 406	88,250	N/A	67,320
Flexural Modulus (psi x 10E6)	FTMS 406	3.6	N/A	3.5
Interlaminar Shear (psi)	FTMS 406	6,350	N/A	5,900
Cimbing Drum Peel (in lbs/in)	ASTM D1781	10	N/A	N/A

*Tests performed using LC-E322-7781 @ 40% RC, press cured @ at 250° F, 25 psi pressure using ½" thick, 1/8" cell, 3# Nomex™ honeycomb core.
**Additional fabric styles available upon request

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