

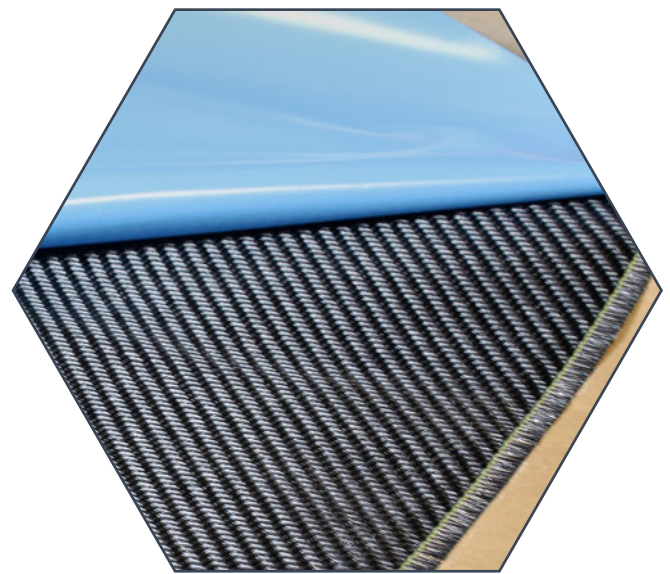


COMPOSITE ENVISIONS CE 4092 EPOXY PREPREG SYSTEM

CE 4092 is a modified epoxy pre-impregnated system which can cure at 250°F (121°C) for one hour. CE 4092 can be supplied on any commercially available glass, Kevlar, or graphite fabric. Both sides of the fabric are pre-impregnated yielding a double sided tack material with the CE 4092 prepreg system. CE 4092 prepreg system can be used for laminating and honeycomb sandwich construction.

PHYSICAL PROPERTIES

Resin Content:	Nominal 50% on 7781 glass, material can be supplied at other resin contents as required
Volatiles:	Less than 1%
Separator:	Release paper and poly film
Shelf Life:	One year at 0°F Six months at 40°F Thirty Days at 72°F
Standard Roll:	Widths up to 60 inches wide available



MECHANICAL PROPERTIES

Based upon 0.125 inch thick cured laminate consisting of CE 4092 on 7781 glass cloth cured at 250°F (121°C) for one hour.

Mechanical Property		Test Condition	Test Values
Tensile Strength	(ASTM D 638)	@ 75°F dry	63,400 psi
Tensile Modulus	(ASTM D 638)	@ 75°F dry	3.5 X 10 ⁶ psi
Compressive Strength	(ASTM D 695)	@ 75°F dry	48,600 psi
Flexural Strength	(ASTM D 790)	@ 75°F dry	80,100 psi
Flexural Modulus	(ASTM D 790)	@ 75°F dry	3.0 X 10 ⁶ psi
Interlaminar Shear Strength	(ASTM D 2344)	@ 75°F dry	7,450 psi



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CURE CYCLE

CE 4092 can be cured at 250°F (121°C) for one hour, however shorter cures are possible at higher temperatures.

The prepreg may be cured using either standard heat-up methods or by in-hot, out-hot press applications. A pressure of 30 psi is recommended, however pressures of 10 to 50 psi may be used.

STORAGE

Store material in a contaminate free container and store at 0 degrees F for extended storage. For shorter storage time requirements store at 40 degrees F, this enables quicker stabilization times.

APPLICATION

Remove material from cold storage at least 20 hours prior to use to allow for stabilization at room temperature. Keep the material wrapped to prevent moisture from condensing on the adhesive. If details are cut and replaced into cold storage, shorter stabilization times may be used.

Cut the prepreg to size, remove the poly separator and apply to part or mold. Remove separator paper. Continue process until the desired number of plies are obtained. Debulking is recommended after every 5 - 20 plies. The material may be debulked at temperatures up to 120°F. When lay-up is complete, the prepreg can be cured in a vacuum bag in an oven or autoclave. Apply at least 10 psi pressure and cure for one hour at 250°F.

CLEAN UP

The adhesive can be removed from non-bonding areas with ketones or methylene chloride. Be sure to follow all Material Safety Data Sheet (MSDS) guidelines for the solvent to be used.



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CAUTION

This material contains epoxy resins and amines which may cause irritation to sensitive skin. Avoid contact with eyes or skin. If contact with skin occurs, wash as soon as possible with soap and water. If contact with eyes occurs, flush with water for 15 minutes. Do not handle or use this material until Material Safety Data Sheet has been read and understood. The user of this material is required to use the necessary protective equipment as directed by applicable state and federal laws when handling, curing, and grinding this material.

Information and data included in this data sheet is considered to be accurate and reliable to the best of our knowledge however it is not guaranteed to be so. It is the user/buyer's responsibility to determine for themselves the suitability of any material for a specific purpose and to adopt such safety precautions as may be necessary. Composite Envisions make no representations or warranties as to the results to be obtained in using any material. As Composite Envisions cannot foresee all conditions under which products will be used, user/buyer waives any claim against Composite Envisions for direct, indirect, consequential, or exemplary damages including without limitation, damage which may incur as a result of user/buyer's use or misuse of the product or the product's failure to perform to any expected performance level.

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