



LC194 PHENOLIC PREPREG

LC194 is a phenolic prepreg system that is self-adhesive to aramid/phenolic honeycomb core. LC194 offers very good and consistent adhesion properties over a wide range of curing/laminating conditions. LC194 is self-extinguishing and meets flammability requirements for use in aircraft interiors. LC194 is suitable for both press and bag molding operations.

FEATURES AND BENEFITS

- Self-extinguishing. Meets FAR 25-853 flammability requirements
- Self-adhesive to aramid/phenolic honeycomb

PRODUCT FORMS

LC194 is available as a woven fabric prepreg in a wide variety of reinforcements including carbon and e-glass.

- Standard fabric prepreg widths: 36", 50", 60"

PHYSICAL PROPERTIES

Fiber Reinforcement Type	7781 E-Glass
Fiber Areal Weight (gsm)	301
Resin Content (% by wt.)	38-45

LAMINATE PROPERTIES

Fiber Reinforcement Type	Units	7781 E-Glass
Tensile Strength	Ksi (MPa)	60 (414)
Tensile Modulus	Msi (GPa)	3.4 (23)
Compression Strength	Ksi (MPa)	72 (496)
Compression Modulus	Msi (GPa)	3.7 (26)
Flexural Strength	Ksi (MPa)	90 (621)
Flexural Modulus	Msi (GPa)	3.5 (24)
Short Beam Shear Strength	Ksi (MPa)	5.3 (36.5)
Climbing Drum Peel	in - lbs/inch width	6-9

Note: Room temperature, dry condition. Values are average and do not constitute a specification.

Climbing Drum Peel specimens tested with two plies per side on aramid honeycomb, 0.25" thick, 3.0 pcf, 1/8" cell



FLAMMABILITY PROPERTIES: LC194 - 7781

Fiber Reinforcement Type	Units	7781 E-Glass
OSU, Peak Heat Release Rate	kw/m ²	23 - 32
OSU, Total Heat Release Rate	kw/min/m ²	18 - 24
Specific Optical Density (ASTM E662-96)	Ds	15 - 24

Note: OSU and Specific Optical Density specimens tested with two plies per side on aramid honeycomb, 0.25" thick, 3.0 pcf, 1/8" cell

PROCESS INFORMATION

The following are general recommendations for successful processing. Adjustments may be required to achieve optimum results in your specific manufacturing environment.

Vacuum Bag in Oven Cycle

- Draw vacuum
- 5°F/min. ramp to 175°F
- Hold at 235°F - 250°F for 30-45 min.
- 5°F/min. ramp to 235°F - 250°F
- Hold at 235°F - 250°F for 60-90 min.
- Cool to less than 150°F at 3 - 5°F/min.
- Release vacuum and demold

Press Cycle

- Apply 40 - 60 psi
- 235°F - 250°F for 45-60 min.
- Bumps no later than 2 min. into cycle

Vacuum Bag in Autoclave

- Draw vacuum and apply 40-60 psi autoclave pressure
- 5°F/min. ramp to 230 - 250°F
- Hold for 60-90 min.
- Cool to less than 150°F at 3-5°F/min.
- Release pressure/vacuum and demold

Shelf Life	Units
Room Temperature (77°F)	4 weeks
0°F	12 months

Note: LC194 Prepreg is wound with a polyethylene film liner or paper backing for easy release. The rolls are sealed in polyethylene film bags to protect prepreg from moisture and other contaminants. The bags should remain sealed while the prepreg is under refrigeration and only removed when the prepreg has had sufficient time to warm to room temperature. When not in use, the prepreg should be returned to refrigerated storage. Care should be exercised to limit out-time of the prepreg in order to insure maximum shelf life. Torn bags should be replaced. The data presented herein has been developed under controlled manufacturing. No warranty is expressed or implied regarding the accuracy or use of this data or the use of this product. It is the responsibility of the end user to determine suitability for use.