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Technical Data Rev 2/10

LC194
Phenolic Prepreg

LC194 is an advanced phenolic prepreg system that is self-adhesive to aramid/phenolic and honeycomb core. LC194 offers very good and consistent adhesion property values (climbing drum peel strength) over a wide range of cure/laminating conditions. LC194 is self-extinguishing, and meets flammability requirements for use in aircraft interiors.

Properties of LC194 7781

Flexural Strength, psi	90,000
Flexural Modulus, psi	3,500,000
Tensile Strength, psi	60,000
Tensile modulus, psi	3,400,000
Tensile Strain at Failure	1.9%
Compressive Strength, psi	72,000
Compressive Modulus, psi	3,700,000
Short Beam Shear Strength, psi	5,300
Climbing Drum Peel, in-lbs/inch width	6 - 9
OSU, Peak Heat Release Rate, kW/m^2	23 - 32
OSU, Total Heat Release Rate, $kW\text{-}min/ m^2$	18 - 24
Specific Optical Density, Ds (ASTM E662-96)	15 - 24

(Climbing Drum Peel, OSU and Specific Optical Density Specimens tested with two plies per side on aramid honeycomb, 0.25" thick, 3.0 pcf, 1/8" cell)

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Process Information

Vacuum Bag in Autoclave

- Draw vacuum and apply 40 to 60 psi autoclave pressure
- 5°F/minute ramp to 235 to 250°F
- Hold for 60 to 90 minutes
- Cool to less than 150°F at 3 to 5°F/minute
- Release pressure/vacuum and demold

Vacuum Bag in Oven

- Draw Vacuum
- 5°F/Minute Ramp to 175°F
- Hold at 175°F for 30 to 45 Minutes
- 5°F/Minute Ramp to 235°F to 250°F
- Hold at 235°F to 245°F for 60 to 90 Minutes
- Cool to Less Than 150°F at 3 to 5°F/Minute
- Release vacuum and demold

Press Molding

- 45 to 60 minutes at 235°F to 250°F, 40 to 60 psi, bumps no later than 2 minutes into cycle

Note: Temperatures are verified via implanted thermocouple

Recommended Storage

Room Temperature (77°F)	4 weeks
40°F	6 months
0°F	12 months

NOTE: LC194 Prepreg is wound with a polyethylene film liner 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 and test conditions and is considered accurate. 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.

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