



LR1750 Ablative Prepreg

LR1750 is a graphite/phenolic prepreg produced from a 5.7 osy plain weave continuous PAN fabric. The material is designed to meet and/or exceed the thermal and graphite insulation requirements of solid propulsion rockets. LR1750 is available in broadgoods, biased tape and molding compound.

Properties of LR1750 Broadgoods

Resin Solids %	31 - 37
Volatile %	3 - 7
Flow %	10 - 20
Filler %	5 - 16
Width	42", 50", 60"

Physical Properties of LR1750

Specific Gravity	1.45
Tensile Strength, psi	30,000
Tensile Modulus, psi	2,800,000
Flexural Strength, psi	49,000
Flexural Modulus, psi	2,900,000
Compressive Strength, psi	48,000
Interlaminar Shear Strength, psi	8,200

NOTE: LR1750 Prepreg is wound with a polyethylene film interliner 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 has been developed under controlled manufacturing and test conditions and is considered accurate. No warranty is expressed or implied regarding the accuracy of these data or the use of this product. It is the responsibility of the end user to determine suitability for use.
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LR1750

PROCESS INFORMATION

Vacuum Bag in Autoclave

Draw Vacuum and apply 50 – 70 psi autoclave pressure
5° F/Minute Ramp to 175° F - 180° F (Optional, Part Temperature)
Hold at 175° F - 180° F for 30 to 45 Minutes (Optional)
5° F/Minute Ramp to 300° F - 325° F (Part Temperature)
Hold at 300° F - 325° F for 90 to 120 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 - 180° F (Part Temperature)
Hold at 175° F - 180° F for 30 to 45 Minutes
5° F/Minute Ramp to 300° F - 325° F (Part Temperature)
Hold at 300° F - 325° F for 90 to 120 Minutes
Cool to Less Than 150° F at 3 to 5° F/Minute
Release Pressure/Vacuum and Demold

Press Molding

300° F to 325° F for 90 to 120 Minutes at 50 - 70 psi

Recommended Storage

- Room Temperature (77° F)	Two (2) Weeks
- 40° F	Six (6) Months
- 0° F	Twelve (12) Months