



LR2101 Phenolic Prepreg

LR2101 phenolic prepreg is produced using a MIL-R-9299 phenolic resin on a 9 oz/yd² 8HS glass fabric. The material is designed to meet and/or exceed the thermal and performance requirements of the rocket propulsion industry.

Physical Properties of LR2101

		Test Method
Resin Solids, %	34 - 40	QCP-R-8
Volatile, %	1 - 4	QCP-V-1
Flow @ 150 psi, %	5 - 25	QCP-F-2

Mechanical Properties of LR2101

		Test Method
Specific Gravity	1.86	ASTM-D-792
Tensile Strength, psi	64,000	ASTM-D-3039
Tensile Modulus, msi	3.4	ASTM-D-3039
Tensile Strain @ Failure	1.7%	ASTM-D-3039
Flexural Strength, psi	72,000	ASTM-D-790
Flexural Modulus, msi	3.0	ASTM-D-790
Compression Strength, psi	65,000	ASTM-D-695
Thermal Conductivity (with ply), BTU/ft-hr-°F	0.16	ASTM-C-177
Specific Heat @ 150°F, BTU/lb °F	0.23	ASTM-C-351
CTE across ply (80-500 °F), 10 ⁻⁶ in./in./°F	8	ASTM-D-696

RECOMMENDED CURE CYCLES

Autoclave

Draw vacuum, apply pressure
 Ramp 5 °F/min to 325 °F
 Let part equilibrate at 175 °F
 Cure 1 to 2 hours at 300°F to 325°F

Press

30 to 120 minutes at 300°F to 325°F at 40 to 100 psi
 Vacuum Bag
 Ramp 5 °F/min to 325 °F
 Let part equilibrate at 175 °F
 Cure 1 to 2 hours at 300°F to 325°F

Recommended Storage

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

NOTE: 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.