86 Providence Rd · Millbury, MA 01527
(800) 225-7725 · www.lewcott.com

LR2201 Phenolic Prepreg

LR2201 is produced using a MIL-R-9299 phenolic resin matrix on a 9oz/yd^2 8HS S-2 glass fabric. The material is designed to meet and/or exceed the thermal insulation requirements of the rocket propulsion industry, and is suitable for ballistic armor applications and many other structural insulation applications.

Chemical Properties of LR2201

Property	Value	Test Method
Resin Solids, %	32-36	QCP-R-8
Volatile, %	3-8	QCP-V-1
Laminate Flow @ 150 psi, %	20-30	QCP-F-2

Physical Properties of LR2201

Property	Value	Test Method
Specific Gravity	1.86	ASTM-D-792
Tensile Strength, psi	70,000	ASTM-D-3039
Tensile Modulus, msi	3.8	ASTM-D-3039
Flexural Strength, psi	78,000	ASTM-D-790
Flexural Modulus, msi	3.9	ASTM-D-790
Compression Strength, psi	68,000	ASTM-D-695
Compressive Modulus, msi	4.0	ASTM-D-695
Thermal Conductivity (with ply), BTU/ft.-hr.-^{o}F	0.16	ASTM-C-177
Specific Heat @ 150^{o}F, BTU/lb. ^{o}F	0.23	ASTM-C-351
CTE (normal to pressure)(80-500 ^{o}F), 10^{-6}in./in./^{o}F	8	ASTM-D-696

PROCESS INFORMATION – LR2201

- Hold to equilibrate at 175^o F
- Increase temperature at 5^o F/min to 325^o F
- Cure 1 to 2 hours at 300^o F to 325^o F

Press Cycle

30 to 120 minutes at 300^o F to 325^o F with 100 to 1000 psi

Autoclave Cycle

Draw vacuum
Apply pressure
Increase temperature at 5^o F/min to 175^o F
Hold to equilibrate at 175^o F
Increase temperature at 5^o F/min to 325^o F

Vacuum Bag in Oven

Draw vacuum
Increase temperature at 5^o F/min to 175 ^{o}F
Hold to equilibrate at 175^o F
Increase temperature at 5^o F/min to 325^o F
Cure 1 to 2 hours at 300^o F to 325^o F

Recommended Storage

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

Date: 05/01/06