



LR1504 Prepreg

LR1504 is a composite produced from a silica filled Lewcott PSR133 MIL-R-9299 phenolic resin matrix on a 18 osy high silica fabric. The material is designed to meet and/or exceed the thermal and insulation requirements of solid and liquid propulsion rockets.

Chemical Properties of LR1504 Prepreg

Property	Value	Test Method
Resin Solids, %	29-33	QCP-R-7
Volatile, %	3-7	QCP-V-1
Laminar Flow @ 150 psi, %	6-15	QCP-F-1
Filler Content, %	6-10	QCP-R-5
Uncured Thickness, x10 ⁻³ in.	0.039	QCP-T-2
Prepreg Width, in	33	

Physical Properties of LR1504

Property	Value	Test Method
Specific Gravity	1.71	ASTM-D-792
Tensile Strength, psi	12,000	ASTM-D-638
Tensile Modulus, msi	2.0	ASTM-D-638
Tensile Elongation, %	0.5	ASTM-D-638
Flexural Strength, psi	21,000	ASTM-D-790
Flexural Modulus, msi	2.6	ASTM-D-790
Compression Strength, psi	35,000	ASTM-D-695
Interlaminar Shear Strength, psi	8,000	FTMS401/1041
Thermal Conductivity (across ply), BTU/ft.-hr.-°F	0.23	ASTM-C-177
Specific Heat @ 150°F, BTU/lb. °F	0.22	ASTM-C-351
Cured Ply Thickness, in.	0.024	

Molding Cycle

Press cured at 325° F using 1000 psi pressure for 2 hours.