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LR1305 Ablative Prepreg

LR1305 is a composite produced from a carbon filled MIL-R-9299 phenolic resin matrix on a rayon based plain weave graphite fabric. The material is designed to meet and/or exceed the thermal and insulation requirements of the solid propulsion rockets.

Chemical Properties of LR1305

Property	Value	Test Method
Resin Solids, %	31-37	QCP-R-5
Volatile, %	3-7	QCP-V-1
Laminar Flow @ 150 psi, %	10-20	QCP-F-1
Filter Content, %	8-15	QCP-R-5
Prepreg Width, in.	44	

Physical Properties of LR1305

Property	Value	Test Method
Specific Gravity	1.40	ASTM-D-792
Flexural Strength, psi	30,000	ASTM-D-790
Flexural Modulus, msi	2.3	ASTM-D-790
Compression Strength, psi	35,000	ASTM-D-695
Interlaminar Shear Strength, psi	3,500	FTMS 401/1041
Thermal Conductivity (with ply), BTU/ft.-hr.-°F	2.4	ASTM-C-177
CTE (across ply) (80-500 °F) , 10 ⁻⁶ in./in./°F	12	ASTM-D-696

Laminate Cure

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

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.

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