



**X-085  
 Ablative Prepreg**

X-085 is a new generation, cost effective composite produced from Lewcott PSR133G carbon filled MIL-R-9299 phenolic resin matrix on a specifically designed five harness (5HS) PAN precursor carbon fabric. This product offers reduced thermal conductivity versus other PAN carbon reinforced materials, and improved erosion resistance versus rayon-based fabric reinforced materials. The material is designed to meet and/or exceed the thermal and insulation requirements of solid propulsion rockets. X-085 is available as Broadgoods, Molding Compound and Straight or Bias Tape.

**Chemical Properties of LR1406**

Property	Value	Test Method
Resin Solids, %	31-37	QCP-R-8
Volatile, %	3-7	QCP-V-1
Laminar Flow @ 150 psi, %	10-20	QCP-F-2
Filler Content, %	8-15	QCP-R-5
Uncured Thickness, x10 <sup>-3</sup> in.	0.022	QCP-T-2
Prepreg Width, in	36 to 60	

**Physical Properties of LR1406**

Property	Value	Test Method
Specific Gravity	1.49	ASTM-D-792
Tensile Strength, psi	24,000	ASTM-D-638
Tensile Modulus, msi	2.5	ASTM-D-638
Flexural Strength, psi	35,000	ASTM-D-790
Flexural Modulus, msi	3.2	ASTM-D-790
Compression Strength, psi	25,000	ASTM-D-695
Interlaminar Shear, psi	3,300	ASTM-D-2344

**Molding Cycle**

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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