

Supercomp™ 1015 Axial



Product Data Sheet

DRY SKU: AX01-0110
PREPREG (NEWPORT NB301) SKU: AX01-0110-P2.1
PREPREG (TCR UF3225) SKU: AX01-0110-P3.1
PREPREG (AXIOM AX 5201S) SKU: AX01-0110-P4.1



Quick Facts

- Unidirectional (UD) dry tape coated with 150µm milled carbon fibers
- Milled fibers are aligned in the Z-axis (i.e. orthogonal to UD dry tape)
- Areal weight and ply thickness of the base fabric is increased
- Better damage tolerance & Z-axis conductivity
- Available as a prepreg with a wide range popular epoxy resins
- Works well to reduce ply count in roll-wrapped tubes

Compatibility

Supercomp dry products can be used in RTM/VARTM and wet layup or they can be supplied as prepregs for compression molding, autoclave, or out-of-autoclave processing. Thermoplastic composites have also been made using Supercomp products. Contact Boston Materials for any questions about the compatibility of Supercomp products for your application.

Comparative Properties

A test panel made with four layers of Supercomp 1015 Axial prepreg was tested against a baseline test panel made with eight layers of UD prepreg. All layers were oriented 0°. The innermost Supercomp 1015 Axial layers were oriented such that their Z-axis milled fiber surfaces faced each other at the mid-plane. Both panels used a 250°F cure epoxy (Newport NB 301) and were cured at 50 psi for 1 hour via compression molding. Test coupons were machined from the panels using an abrasive water jet.

	Test Standard	Supercomp 1015 Axial	Baseline	Unit
Surface Resistivity	ASTM D257-14	2.39E+06	3.51E+12	Ω/sq
Volume Resistivity	ASTM D257-14	8.99E+07	6.43E+10	Ω-m
Flexural Strength	ASTM D790	1,607	1,680	MPa
Flexural Modulus	ASTM D790	82	82	GPa

Physical Properties

	Supercomp 1015 Axial	Baseline	Unit
In-Plane Fiber	T700, 12K, A&P Zero 4.0-SM	T700, 12K, A&P Zero 4.0-SM	-
Z-Axis Fiber	PX30, 150µm, Milled	-	-
Ply Thickness @ 55% FV	0.29 [0.011]	0.15 [0.006]	mm [in]
Total Fiber Areal Weight	270	140	g/m ²
<i>In-Plane Fiber Areal Weight</i>	140	140	g/m ²
<i>Z-axis Fiber Areal Weight</i>	130	0	g/m ²

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