

Specialty Materials, Inc.

BORON PREPREG TAPE

Standard Preforms

- Type 5505 (350°F cure) epoxy resin prepreg tape (4.0 or 5.6-mil fiber) 50 vol.% boron fiber (208 fpi); 0.0051-in. ply thickness (4.0-mil fiber)
- Type 5521F (250°F cure) epoxy resin prepreg (4.0 or 5.6-mil fiber) 6-in. wide one-step tape Laminated resin films and scrim cloth with creel fibers are collimated at 208/inch (4-mil) or 152/inch (5.6-mil)
- Type 5521 (250°F cure) epoxy resin prepreg tape (4.0 or 5.6-mil fiber) two-step tape in various widths is produced from initial ¼-inch width tape stock
- Custom Preforms - SMC will consider orders for specialty tape configurations
- Cure cycle information is provided under the **USE & SAFETY TAB**



Boron Fiber Properties

Prepreg Properties

Hy-Bor® Prepreg Tape

Hy-Bor® Prepreg Tape Properties

Hy-Bor® Properties vs Standard Preforms

Boron Compression Strength Analysis

Hy-Bor® Fiber Count and Compression Strength

Unidirectional Dry Woven Boron

Property	Units	Type B4/5505	Type B4/5505	Type B4/5521F	Type B4/5521F
Cure Temperature	Deg-F	350	350	250	250
Test Temperature	Deg-C	R.T.	177	R.T.	177
	Deg-F		350		350
Tensile Strength	MPa	1,590	1,450	1,520	1,450
	ksi	230	210	220	210
Tensile Modulus	GPa	185	185	185	185
	msi	27	27	27	27
Flexural Strength	MPa	2,050	1,800	1,790	1,720
	ksi	300	265	260	250
Flexural Modulus	GPa	190	170	190	170
	msi	28	25	28	25
Compression Strength	MPa	2,930	1,250	2,930	1,250
	ksi	425	181	425	181
Compression Modulus	GPa	210	210	210	210
	msi	30	30	30	30
Interlaminar Shear Strength	MPa	110	48	97	55
	ksi	15.6	6.9	14.1	8
Cured Ply Thickness	mm	0.13	-	0.13	-
	in.x10 ⁻³	5.2	-	5.2	-
Areal Weight	g/m ²	290	-	290	-
	lbs/ft ²	0.06	-	0.06	-
Density	g/cc	2.0	-	2.0	-
	lbs/in ³	0.072	-	0.072	-