

## A Stresses and Strains

Table 1: Stresses are in [GPa].

Ply	$\epsilon_1$	$\epsilon_2$	$\epsilon_6$	$\epsilon_x$	$\epsilon_y$	$\epsilon_s$	$\sigma_x$	$\sigma_y$	$\sigma_s$
1 (0°) - B	0.00136	-0.00106	-0.00003	0.00136	-0.00106	-0.00003	0.18073	-0.00606	-0.00015
1 (0°) - T	0.00133	-0.00104	-0.00003	0.00133	-0.00104	-0.00003	0.17688	-0.00593	-0.00015
2 (0°) - B	0.00133	-0.00104	-0.00003	0.00133	-0.00104	-0.00003	0.17688	-0.00593	-0.00015
2 (0°) - T	0.00130	-0.00101	-0.00003	0.00130	-0.00101	-0.00003	0.17303	-0.00580	-0.00014
3 (25°) - B	0.00130	-0.00101	-0.00003	0.00088	-0.00059	-0.00179	0.11690	-0.00306	-0.00914
3 (25°) - T	0.00127	-0.00099	-0.00003	0.00086	-0.00058	-0.00175	0.11429	-0.00300	-0.00894
4 (-25°) - B	0.00127	-0.00099	-0.00003	0.00088	-0.00060	0.00172	0.11710	-0.00313	0.00876
4 (-25°) - T	0.00125	-0.00097	-0.00003	0.00086	-0.00058	0.00168	0.11443	-0.00306	0.00856
5 (0°) - B	0.00125	-0.00097	-0.00003	0.00125	-0.00097	-0.00003	0.16532	-0.00554	-0.00014
5 (0°) - T	0.00122	-0.00095	-0.00003	0.00122	-0.00095	-0.00003	0.16147	-0.00541	-0.00013
6 (0°) - B	0.00122	-0.00095	-0.00003	0.00122	-0.00095	-0.00003	0.16147	-0.00541	-0.00013
6 (0°) - T	0.00119	-0.00092	-0.00003	0.00119	-0.00092	-0.00003	0.15761	-0.00528	-0.00013
7 (0°) - B	-0.00113	0.00088	0.00003	-0.00113	0.00088	0.00003	-0.15062	0.00505	0.00013
7 (0°) - T	-0.00116	0.00090	0.00003	-0.00116	0.00090	0.00003	-0.15447	0.00518	0.00013
8 (0°) - B	-0.00116	0.00090	0.00003	-0.00116	0.00090	0.00003	-0.15447	0.00518	0.00013
8 (0°) - T	-0.00119	0.00093	0.00003	-0.00119	0.00093	0.00003	-0.15832	0.00531	0.00014
9 (-25°) - B	-0.00119	0.00093	0.00003	-0.00082	0.00056	-0.00161	-0.10965	0.00293	-0.00819
9 (-25°) - T	-0.00122	0.00095	0.00003	-0.00084	0.00057	-0.00165	-0.11232	0.00301	-0.00839
10 (25°) - B	-0.00122	0.00095	0.00003	-0.00082	0.00055	0.00168	-0.10951	0.00287	0.00857
10 (25°) - T	-0.00125	0.00097	0.00003	-0.00084	0.00056	0.00172	-0.11211	0.00294	0.00878
11 (0°) - B	-0.00125	0.00097	0.00003	-0.00125	0.00097	0.00003	-0.16603	0.00556	0.00014
11 (0°) - T	-0.00128	0.00099	0.00003	-0.00128	0.00099	0.00003	-0.16988	0.00569	0.00015
12 (0°) - B	-0.00128	0.00099	0.00003	-0.00128	0.00099	0.00003	-0.16988	0.00569	0.00015
12 (0°) - T	-0.00131	0.00102	0.00003	-0.00131	0.00102	0.00003	-0.17374	0.00582	0.00015

## B Safety Factors

Ply	Maximum Stress					Quadratic		Hashin			
	FT	FC	MT	MC	S	(+)	(-)	FT	FC	MT	MC
1 (0) - B	11.8	0.0	0.0	33.0	1057.1	10.2	-4.5	11.8	0.0	0.0	33.0
1 (0) - T	12.0	0.0	0.0	33.7	1080.6	10.4	-4.6	12.0	0.0	0.0	33.7
2 (0) - B	12.0	0.0	0.0	33.7	1080.6	10.4	-4.6	12.0	0.0	0.0	33.7
2 (0) - T	12.3	0.0	0.0	34.5	1105.2	10.6	-4.7	12.3	0.0	0.0	34.5
3 (25) - B	18.2	0.0	0.0	65.3	17.5	13.1	-6.6	12.6	0.0	0.0	15.9
3 (25) - T	18.6	0.0	0.0	66.8	17.9	13.4	-6.8	12.9	0.0	0.0	16.3
4 (-25) - B	18.2	0.0	0.0	63.9	18.3	13.2	-6.6	12.9	0.0	0.0	16.5
4 (-25) - T	18.6	0.0	0.0	65.3	18.7	13.6	-6.8	13.2	0.0	0.0	16.9
5 (0) - B	12.9	0.0	0.0	36.1	1157.8	11.1	-4.9	12.9	0.0	0.0	36.1
5 (0) - T	13.2	0.0	0.0	37.0	1186.0	11.4	-5.0	13.2	0.0	0.0	36.9
6 (0) - B	13.2	0.0	0.0	37.0	1186.0	11.4	-5.0	13.2	0.0	0.0	36.9
6 (0) - T	13.5	0.0	0.0	37.9	1215.7	11.7	-5.1	13.5	0.0	0.0	37.8
7 (0) - B	0.0	7.3	15.8	0.0	1215.7	5.4	-12.2	0.0	7.3	15.8	0.0
7 (0) - T	0.0	7.1	15.5	0.0	1186.0	5.2	-11.9	0.0	7.1	15.5	0.0
8 (0) - B	0.0	7.1	15.5	0.0	1186.0	5.2	-11.9	0.0	7.1	15.5	0.0
8 (0) - T	0.0	6.9	15.1	0.0	1157.8	5.1	-11.6	0.0	6.9	15.1	0.0
9 (-25) - B	0.0	10.0	27.3	0.0	19.5	7.1	-14.2	0.0	10.0	15.9	0.0
9 (-25) - T	0.0	9.8	26.6	0.0	19.1	6.9	-13.8	0.0	9.8	15.5	0.0
10 (25) - B	0.0	10.0	27.9	0.0	18.7	7.1	-14.0	0.0	10.0	15.5	0.0
10 (25) - T	0.0	9.8	27.2	0.0	18.2	6.9	-13.6	0.0	9.8	15.2	0.0
11 (0) - B	0.0	6.6	14.4	0.0	1105.2	4.9	-11.1	0.0	6.6	14.4	0.0
11 (0) - T	0.0	6.5	14.1	0.0	1080.6	4.8	-10.8	0.0	6.5	14.1	0.0
12 (0) - B	0.0	6.5	14.1	0.0	1080.6	4.8	-10.8	0.0	6.5	14.1	0.0
12 (0) - T	0.0	6.3	13.7	0.0	1057.1	4.7	-10.6	0.0	6.3	13.7	0.0