



IDI Fabrication Inc.

14444 Herriman Blvd.
Noblesville, IN 46060

ISO 9001 ISO 14001

Phone: (317) 776-6577

Fax: (317) 770-4093

FRP SHEET LAMINATES

ENGINEERING SPECIFICATIONS

Property	Measure	Test Method	4400 GPO-1	4600 GPO-2	4800 GPO-3	HTF	4400C	X2 GPO-1	X2FR GPO-2
----------	---------	-------------	------------	------------	------------	-----	-------	----------	------------

Physical and Mechanical Properties

Impact Strength	FT-LBS/IN	D256	13	12	11	-	11	11.5	13
Flexural Strength	x1000 PSI	D790	31	34	28	5	24	25	26
			21 ¹	23 ¹	17 ¹	20 ²	21.6 ²		
			-	-	-	18 ³	-		
Tensile Strength	x1000 PSI	D638	17	19	15	-	-	18	10
Compressive Strength	x1000 PSI	D695	46	36	32	-	44	45	35
Barcol Hardness	-	D2583	63	60	60	-	60	-	-
Specific Gravity	-	D792	1.85	1.95	1.88	1.70	1.85	-	-
Shear Strength	PSI	D732	17,000	17,000	17,000	-	-	-	-
Water Absorption	% in 24 hrs.	D570	0.3	0.25	0.35	0.55	0.3	0.45	0.3

Electrical Properties

Dielectric Strength	VPM	D149	350	400	350	430	500	400	350
			225 ⁴	225 ⁵	250 ⁵	340 ²	350 ³		
Arc Resistance	Seconds	D495	183	183	184	136	140	135	180
Power Factor	% @ 60hz	D150	6.3	6.4	3.0	-	6.3	0.046	0.045
	% @ 1Mhz		1.7	2.4	0.9	-	1.7	0.011	0.009
Dielectric Constant	@ 60hz	D150	5.8	6.2	4.8	-	5.8	4.70	4.37
	@ 1Mhz		5.0	5.0	4.7	-	5.0	4.15	3.55

Thermal and Flame Retardant Properties

Flamability Rating	1/32"	UL94	-	V-0	V-0	-	-	-	V-0
--------------------	-------	------	---	-----	-----	---	---	---	-----

¹ E1/130

² 24 hours @ 250 Deg C

³ 500 hours @ 240 Deg C

⁴ D 48/20

⁵ D 48/50