

GPO Glass / Polyester Laminated Sheet Grades & Properties

DATA	TEST METHOD	UNIT	NEMA GPO-1					NEMA GPO-2	NEMA GPO-3			SPECIALTY SHEETS	
GENERAL			ETS	EHC	H755	HST II	H722	ETS-FR-II	ETR-FR-C	H900	H950	Slot Wedge EMD	H515
Gov't Specs	--		LP-509 I-24768/6	LP-509 I-24768/6	LP-509 I-24768/6	--	LP-509 I-24768/6	LP-509 I-24768/6	I-24768/6	I-24768/6	I-24768/6	--	--
Standard Color	--		Buff	Brown	Ivory	Lt Brown	Natural	Red	Red	Red	Red	Black	Tan
Available Thickness	--	Inches	.032" - 2.00"	.032" - 2.00"	.032" - 2.00"	.032" - 2.00"	.032" - 2.00"	.032" - 2.00"	.032" - .090"	.090" - 2.00"	.090" - 2.00"	.062-1.00"	.031-.125
PHYSICAL													
Barcol Hardness	Barcol	Scale	46	74	48	52	46	46.00	64	62	62	67	0
Specific Gravity	D-792		1.87	2.00	1.80	1.62	1.87	1.84	1.83	1.80	1.80	1.94	1.64
Density, Lbs/In3		Lbs/Cu. In.	0.067	0.072	0.065	0.058	0.067	0.065	0.066	0.065	0.065	0.070	0.059
Water Absorption, %	D-229	%	0.60	0.31	0.35	0.30	0.60	0.20	0.20	0.20	0.20	0.19	0.44
UL Flammability, File# E81893	UL94	Class	--	--	--	HB	--	94V-0	94V-0	94V-0	94V-0	--	--
Flame Resistance, Seconds													
Ignition Time	D-229	Seconds	57	83	103	77	57	93	100	130	130	75	67
Burning Time	D-229	Seconds	328	221	211	256	328	27	20	33	33	287	422
Radiant Panel	E-162	Flame Spread	--	--	--	--	--	--	1.3	5.0	5.0	--	--
Smoke Density at 4.0 minutes, flaming	E-662	Optical Density	--	--	--	--	--	--	40	0.33	0	--	--
Tunnel Test, 1/4" Thickness	E-84	Flame Spread	--	--	--	--	--	--	<25	<25	<25	--	--
Temperature Class*	--	Degrees C	130	155	155	220	130	130	130	160	160	180	--
MECHANICAL													
Tensile Strength, PSI	D-638	PSI	10,000	13,000	11,000	13,000	10,000	10,000	9,400	9,000	11,000	16,500	5,000
Flexural Strength, PSI	D-790	PSI	23,000	27,000	25,000	25,000	18,000	21,000	21,000	18,000	25,000	33,000	--
Modulus of Elasticity in Flexure, PSI	D-790	X106PSI	1.00	1.71	1.60	1.70	1.00	1.00	1.59	1.50	1.50	1.80	--
Compressive Strength, PSI	D-695	PSI	30,000	44,000	40,000	33,000	32,000	30,000	35,000	30,000	30,000	52,000	9500
Bond Strength, 1/2" Thickness, PSI	D-229	PSI	1,250	2,000	1,200	1,400	1,250	1500	1400	1400	1400	--	--
Shear Strength, PSI	D-732	PSI	14,000	18,000	15,000	14,000	14,000	14,000	14,000	14,000	14,000	17,900	--
Impact Strength, Izod Edgewise	D-256	Ft lbs/In. Notch	8.0	11.5	8.5	10.1	8.0	8.0	8.0	8.0	9.5	11.0	6.0
ELECTRICAL													
Dielectric Strength, ^, Short Time In Oil 1/16", VPM	D-149	VPM	500	325	500	400	500	550	450	450	525	425	550
Dielectric Strength, Parallel, Step-By-Step In Oil, KV	D-149	KV	54.0	62.0	60.0	62.0	54.0	60.0	55.0	55.0	55.0	60.0	55.0
Arc Resistance, Seconds	D-495	Seconds	150	180	150	150.0	150	180	185	190	194	150	--
Comparative Track Index	CTI	Seconds	--	--	--	500+	--	500+	500+	600+	600+	--	--
Inline Plane Track Resistance -	D-2303	Minutes	--	--	--	--	--	--	500	1000	>1000	--	--
Dielectric Constant @ 60HZ	D-150		4.80	4.67	1.80	4.20	4.80	4.40	4.73	5.20	5.20	4.80	--
Dielectric Constant @ 1MHZ	D-150		4.30	4.30	--	--	4.30	--	4.69	--	--	--	--
Dissipation Factor @ 60Hz	D-150		0.015	0.019	0.02	0.01	0.015	0.019	0.016	0.06	0.06	0.02	--
Dissipation Factor @ 1MHz	D-150		0.011	0.013	--	--	0.011	--	0.011	--	--	--	--