

EPTAM Plastics
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Thermosetting Materials Chart

NEMA Grade	Relative Cost Factor (as related to XX)	Federal Military Specification (MIL -I -)	Tensile Strength Lengthwise PSI	Compressive Strength Flat wise PSI	Flexural Strength Lengthwise PSI 1/8" thick	Modulus of Elasticity lengthwise (10 ⁶ PSI)	Shear Strength (PSI)	Bond Strength (PSI)	Water Absorption (% 24 HR) (1/16") Thick	Coefficient of Thermal Expansion (10 ⁻⁵) in/in -C	Specific Gravity	Maximum Continuous Operating Temperature (F)
X	0.80	24768/12	20,000	36,000	25,000	1.80	12,000	700	6	2	1.36	285
XX	1.00	24768/11	16,000	34,000	15,000	1.40	11,000	800	2	2	1.36	285
XXX	1.14	24768/10	15,000	32,000	13,500	1.30	10,000	950	1.4	2	1.32	285
XP	0.70	24768/18	12,000	25,000	14,000	1.20	8,000	-	3.6	2	1.33	285
XPC	0.90	24768/20	10,000	22,000	12,000	1.00	-	-	5.5	2	1.34	-
XXP	1.00	24768/21	11,000	25,000	14,000	0.90	11,000	-	1.8	2	1.32	285
XXXP	1.25	24768/22	12,000	25,000	12,000	1.00	11,000	-	1	2	1.30	275
XXXPC	1.35	24768/23	12,400	25,000	12,000	1.00	11,000	-	0.75	2	1.30	275
FR3	2.30	24768/25	14,000	30,000	20,000	1.50	11,000	950	0.65	2	1.36	265
C	1.85	24768/16	10,000	37,000	17,000	1.00	12,000	1800	4.4	2	1.36	265
CE	1.85	24768/14	9,000	39,000	17,000	0.90	11,000	1800	2.2	2	1.33	265
L	2.35	24768/15	13,000	35,000	15,000	1.10	12,000	1600	2.2	2	1.35	265
LE	2.50	24768/13	12,000	50,000	15,000	1.00	11,500	1600	1.95	2	1.33	265
G3	2.70	24768/18	23,000	45,000	20,000	1.50	18,000	850	2.7	1.8	1.65	355
G7	7.00	24768/17	23,000	70,000	23,000	1.40	17,000	650	0.3	1	1.68	465
G9	2.60	24768/1	37,000	60,000	55,000	2.50	20,000	1700	0.8	1	1.90	285
G10	2.70	24768/2	40,000	60,000	55,000	2.70	19,000	4	0.25	0.9	1.82	285
G11	3.20	24768/3	40,000	60,000	55,000	2.70	19,000	4	0.25	.09	1.82	285
FR4	2.80	24768/27	40,000	60,000	55,000	2.70	19,000	4	0.25	0.9	1.82	285
FR5	3.20	24768/28	40,000	60,000	55,000	2.70	19,000	4	0.25	0.9	1.82	285
N1	3.85	24768/9	8,500		10,000	.060	14,000	1000	0.6	8	1.15	-