

More About Hard Fiber, Fiberglass, Garolite, and Carbon Fiber

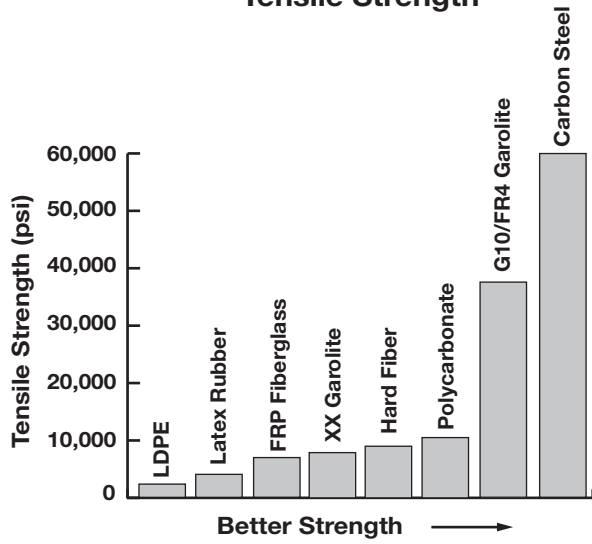
Material	Nominal Density, lbs./cu. in.	Tensile Strength, psi	Impact Strength, ft.-lbs./in.	Compressive Strength, psi	Flexural Strength, psi	Dielectric Strength, volts/mil. ■	Water Absorption, %
Hard Fiber	0.043	9,000-21,000	1.8-2.5	35,000	16,000-29,000	200-215	63-66
Structural Fiberglass (FRP)	0.058-0.070	7,000-40,000	4-30	14,000-70,000	10,000-60,000	200-450	0.05-1.1
Electrical-Grade Fiberglass (GP03)	0.063	10,000-15,000	8.2-12	32,000-42,000	23,200-31,000	200-600	0.2-0.3
XX Garolite	0.043-0.05	8,000-23,900	0.35-0.55	15,000-35,000	14,000-29,300	350-700	0.57-2
CE Garolite	0.045-0.05	6,000-10,000	1.4-1.7	18,000-39,000	15,000-19,000	120-550	1.6-2.2
E-Glass Garolite	0.69	Not Rated	Not Rated	Not Rated	Not Rated	Not Rated	Not Rated
LE Garolite	0.047-0.052	6,000-15,300	0.8-1.25	22,600-36,000	15,400-19,700	140-625	0.47-2
Glass-Carbon Garolite	1.49	Not Rated	Not Rated	48,000	25,000-34,000	Not Rated	Not Rated
G-9 Garolite	0.069-0.074	39,000	9-22.7	45,000-70,000	50,200-60,400	370-450	0.5-0.6
G-10 Garolite	0.069	32,000-40,000	5.5-9.5	35,000-68,000	45,000-55,000	350	0.15
G-10/FR4 Garolite	0.069	35,000-50,000	5.5-12	35,000-66,000	45,000-60,000	350-800	0.1-0.15
G-11 Garolite	0.068	37,000-58,600	7-15.3	32,900-63,000	59,600-76,700	521-900	0.15-1.1
G-7 Garolite	0.07	18,000-27,700	6.5-19.1	44,800-45,000	20,900-25,800	400-465	0.12-1
High-Strength Lightweight Flexible Carbon Fiber	Not Rated	40,000	Not Rated	60,000	80,000	Not Rated	0.10-0.25
High-Strength Lightweight Rigid Carbon Fiber	0.05-0.067	120,000-175,000	Not Rated	75,000-128,000	89,000-174,000	Not Rated	Not Rated
High Temperature Carbon Fiber	0.054-0.058	Not Rated	Not Rated	Not Rated	Not Rated	Not Rated	<1
Extreme High Temperature Carbon Fiber	0.05	14,200	Not Rated	17,400-20,300	24,600	Not Rated	Not Rated

■ 1 mil = 0.001"

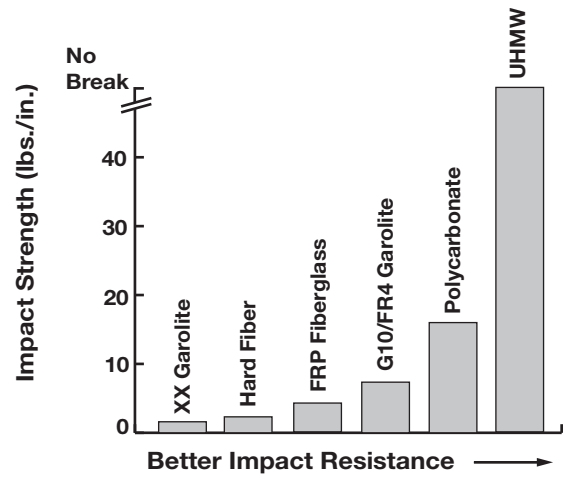
Warning: Data is intended only as a basis for comparison. It is not guaranteed nor is it meant for design purposes.

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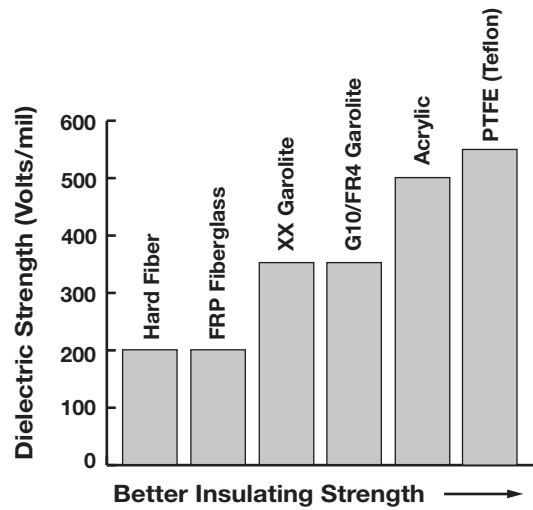
Tensile Strength



Impact Strength



Dielectric Strength



Warning: These graphs are provided for comparative purposes only. They do not correspond to specific items in our catalog.