

FIBERGLASS PULTRUSION PROPERTIES COMPARISON CHART

	PVC	ALUMINUM	STEEL	WOOD (PINE)		FIBERGLASS	
PHYSICAL PROPERTY	ISOTROPIC	ISOTROPIC	ISOTROPIC	LONGITUDINAL	TRANSVERSE	LONGITUDINAL	TRANSVERSE
DENSITY (#/in3)	0.051	0.095	0.284	0.016		0.069	
STRENGTH D638 (psi)	15000	8,000	30,000	850	550	80,000	11,000
SPECIFIC STRENGTH (strength/density)	294,000	84,000	106	53,000	34,000	1,217,000	159,000
FLEX MODULUS D790 (psi)	.40 E+6	10.0 E+6	30.0 E+6	1.3 E+6		3.2 E+6	1.3 E+6
SPECIFIC STIFFNESS (stiffness/density)	7.8 E+6	105.3 E+6	105.6 E+6	81.3 E+6		46.5 E+6	13.5 E+6
THERMAL EXPANSION (in/in/degF)	41.0 E-6	13.0 E-6	7.0 E-6	2.5 E-6		3.8 E-6	
THERMAL CONDUCTIVITY (BTUin/ ft2hrFdeg)	1.3	1,500	310	1.00		2.08	
HEAT DISTORTION (Fdeg)	155	1,200	2,700	500		300	