

## MATERIAL GRADES

Material/Grade	Relative Cost Ryertex C = 1.00	Coefficient of Thermal Expansion x 10 <sup>-5</sup>	Dielectric Strength	Tensile Modulus x 1000	Izod Impact Resistance	Flexural Modulus x 1000
ABS	0.93	5.30	425	200	7.0	300
Acetal - Copolymer	1.69	5.20	380	437	1.6	400
Acetal - Homopolymer - 20% Glass	4.85	3.20	490	1000	0.9	715
Acetal - Homopolymer (Delrin)	1.73	5.50	380	310	2.3	320
Acrylic - Cast	0.48	3.50	500	400	0.5	400
Azdel	0.75	1.50	500	750	14.0	800
CPVC	1.27	4.00	600	400	3.0	450
Crosslinked UHMW (Tivar 88)	1.56	18.00	340	325	28.0	210
Extren 500 Shapes	0.82	0.44	200	2500	25.0	2000
Extren 500 Sheets	0.82	0.44	200	1800	20.0	2000
Extren 525 Shapes	0.93	0.44	200	2500	25.0	2000
Extren 525 Sheets	0.93	0.44	200	1800	20.0	2000
Extren 625 Shapes	1.36	0.44	200	2600	25.0	2500
Extren 625 Sheets	1.36	0.44	200	1800	20.0	2000
Extren Thermal Cure Clear Rod	0.82	0.44	200	6000	40.0	6000
Extren Thermal Cure Vinyl Ester Rod	1.36	0.44	200	6000	40.0	6000
Nylon 6 - 30% Glass	4.36	2.50	425	1350	3.0	1400
Nylon 6 (Cast)	1.40	4.50	295	380	1.4	450
Nylon 6/12	3.70	3.90	400	254	1.5	290
Nylon 6/6 - 30% Glass	4.38	1.30	430	1300	3.0	1300
Nylon 6/6 (Extruded)	1.42	4.50	600	390	1.0	400
Nylon 6OL (Oil Filled)	1.56	3.90	500	350	2.2	380
PET - Unfilled	1.00	3.60	485	500	0.5	400
Polycarbonate	0.79	3.60	380	345	14.0	340
Polyetheretherketone (PEEK)	91.83	2.60	500	522	1.55	531
Polyetherimide (Ultem)	6.00	3.10	480	430	1.1	480
Polyethylene (HD)	0.28	20.00	475	156	6.0	160
Polyethylene (UHMW)	0.47	20.00	710	110	No Break	130
Polyimide - Unfilled (Vespel)	21.94	2.50	560	300	1.5	531
Polymethylpentene (PMP)	3.31	3.60	1097	220	2.5	130
Polyphenylene Sulfide (Ryton)	12.69	2.30	380	480	0.5	550
Polypropylene	0.27	9.60	600	155	0.75	200
Polysulfone	5.21	3.50	425	360	1.2	390
PTFE (Teflon)	5.72	5.00	480	225	3.0	80
PVC Type I	0.43	3.00	500	550	0.9	400
PVDF	6.21	6.00	260	320	3.0	200
Ryertex C	1.00	1.11	200	1000	2.4	1000
Ryertex CE	1.06	1.11	200	900	2.0	900
Ryertex CG	1.45	1.11	200	900	2.1	900
Ryertex G 10	1.80	0.055	550	2700	7.0	2700
Ryertex LE	1.36	1.11	350	1300	1.6	1300
VHME; Polypropylene/Glass	1.03	0.70	360	1500	3.2	1400