

**Common Polymer Materials
CLTE Values**

Material (Abbr)		Material Name	Melt Range	Mold Range	Heat Capacity	Thermal Conductivity	CLTE (alpha)
			F	F	J/Kg.K	W/m.K	1/K
ABS	A	Acrylonitrile-Butadiene-Styrene	425 - 525 F	120 - 180 F	1,250 – 2,400	0.18 – 0.25	7.0 – 15.0 e-005
LCP Neat	L	Liquid Crystal Polymer	525 - 625 F	175 - 250 F	1,000 – 2,000	0.20 – 0.45	3.0 – 7.0 e-005
PA	S	Polyamide	500 - 600 F	150 - 250 F	2,000 – 2,500	0.20 – 0.25	5.0 – 12.0 e-005
PBT	S	Polybutylene Terephthalate	450 - 550 F	125 - 225 F	1,100 – 2,200	0.18 – 0.23	6.0 – 10.0 e-005
PC	A	Polycarbonate	550 – 650 F	150 - 250 F	1,100 – 1,900	0.19 – 0.25	7.0 – 9.0 e-005
PC/ABS	A	Polycarbonate & ABS	400 – 500 F	125 – 225 F	1,500 – 2,200	0.19 – 0.25	6.0 – 9.0 e-005
PE	S	Polyethylene	375 – 425 F	70 - 150 F	3,200 – 3,400	0.28 – 0.32	18.0 – 25.0 e-005
HDPE	S	High Density <i>Polyethylene</i>	375 – 450 F	70 - 150 F	3,000 – 3,100	0.27 – 0.30	6.0 – 11.0 e-005
LDPE	S	Low Density <i>Polyethylene</i>	375 – 450 F	70 - 150 F	3,000 – 3,100	0.27 – 0.30	10.0 – 20.0 e-005
PEEK	S	Poly-ether-ether-ketone	700 – 770 F	350 – 420 F	1,000 – 2,500	0.20 – 0.30	4.5 – 11 e-005
PEEK Filled	S	Poly-ether-ether-ketone	700 – 770 F	350 – 420 F	1,000 – 2,500	0.40 – 0.50	1.5 – 2.5 e-005
PET	S	Polyethylene Terephthalate	500 – 600 F	125 – 225 F	1,700 – 2,200	0.25 – 0.30	6.0 – 8.0 e-005
PMMA	A	Polymethyl Methacrylate	425 – 525 F	125 – 225 F	1,350 – 2,000	0.16 – 0.20	5.0 – 9.0 e-005
POM	S	Polyoxymethylene	375 – 450 F	150 – 225 F	1,300 – 2,000	0.14 – 0.20	10.0 – 15.0 e-005
PP	S	Polypropylene	375 – 450 F	70 – 150 F	1,600 – 2,500	0.18 – 0.25	6.0 – 17.0 e-005
PPS	S	Polyphenylene Sulfide	500 – 650 F	250 – 325 F	1,600 – 2,000	0.20 – 0.50	3.0 – 5.0 e-005
PS	A	Polystyrene	375 – 500 F	70 – 150 F	1,900 – 2,100	0.15 – 0.18	5.0 – 8.0 e-005
PSU	A	Polysulfone	650 – 725 F	250 – 300 F	1,900 – 2,000	0.15 – 0.20	5.0 – 6.0 e-005
PVC	A	Polyvinyl Chloride	325 – 425 F	70 – 200 F	1,600 – 1,900	0.16 – 0.18	5.0 – 18.0 e-005
SAN	A	Styrene acrylonitrile	425 – 525 F	125 – 200 F	2,100 – 2,300	0.16 – 0.18	6.0 – 8.0 e-005
SB	A	Styrene-Butadiene	375 – 450 F	70 – 150 F	2,000 – 2,200	0.14 – 0.16	8.0 – 12.0 e-005
TPE		Thermoplastic Elastomers	350 – 500 F	70 – 150 F	1,700 – 2,500	0.20 – 0.25	10.0 – 25.0 e-005
TPO		Thermoplastic Olefin	350 – 500 F	70 – 150 F	1,700 – 2,500	0.20 – 0.25	4.5 – 9.0 e-005
TPU		Thermoplastic Polyurethane	350 – 500 F	70 – 150 F	1,500 – 2,000	0.18 - 0.25	1.5 – 2.5 e-005