Physical Properties

Plastic	Thermal Properties				Strength		Density
Abbreviation - Brand name	Tm	Tg	Td	Cte	Tensile	Compressive	
	°C	°C	°C	ppm/°C	psi	psi	g/cc
PET - Polyethyleneterephthalate	245 265	73 80	21 38	65	7000 10500	11000 15000	1.29 1.40
LDPE - Low density polyethylene	98 115	-25	40 44	100 220	1200 4550		0.917 0.932
HDPE - High density polyethylene	130 137		79 91	59 110	3200 4500	2700 3600	0.952 0.965
PP - polypropylene	168 175	-20	107 121	81 100	4500 6000	5500 8000	0.900 0.910
PVC - polyvinylchloride		75 105	57 82	50 100	5900 7500	8000 13000	1.30 1.58
PS - polystyrene		74 105	68 96	50 83	5200 7500	12000 13000	1.04 1.05

Tm - crystalline melting temperature (some plastics have no crystallinity and are said to be amorphous).

Tg - glass transition temperature (the plastic becomes brittle below this temperature).

Td - heat distortion temperature under a 66 psi load.

Cte - coefficient of linear thermal expansion.

Tensile Strength - load necessary to pull a sample of the plastic apart.

Compressive Strength - load necessary to crush a sample of the plastic.

Density - aka specific gravitymass of plastic per unit volume.