



PBT (Polybutylene Terephthalate)

General Material Properties

Property	Metric	units	English	units
General				
Density	1.3e3 - 1.38e3	kg/m ³	0.047 - 0.0499	lb/ft ³
Mechanical				
Yield Strength	5.65e7 - 6e7	Pa	8.19 - 8.7	ksi
Tensile Strength	5.65e7 - 6e7	Pa	8.19 - 8.7	ksi
Elongation	0.5 - 3	% strain	8.6 - 14.5	% strain
Hardness (Vickers)	1.67e8 - 1.77e8	Pa	17-18	HV
Impact Strength (unnotched)	1.34e5 - 2e5	J/m ²	63.8 - 95.2	ft.lbf/in ²
Fracture Toughness	1.59e6 - 2.75e6	Pa/m ^{0.5}	1.45 - 2.51	ksi/in ^{0.5}
Young's Modulus	1.93e9 - 3e9	Pa	0.28 - 0.435	10 ⁶ psi
Thermal				
Max Service Temperature	112 - 127	°C	234 - 261	°F
Melting Temperature	220 - 267	°C	428 - 513	°F
Insulator or Conductor	Insulator		Insulator	
Specific Heat Capability	1.42e3 - 1.48e3	J/kg °C	0.339 - 0.353	BTU/lb. °F
Thermal Expansion Coefficient	1.08e-4 - 1.71e-7	strain/°C	60-95	μstrain/°F
Eco				
CO2 Footprint	2.73 - 3.02	kg/kg	2.73 - 3.02	lb/lb
Recycleable	Yes		Yes	

The information on this page is intended as general guidance only and is only accurate at the time of posting (7-30-12). Specific material properties vary by manufacturer. Please contact a Dielectric application engineer for help in choosing the optimal material for your application and budget.