Formex® (Flame Retardant Polypropylene)

General Material Properties

Property	Metric	units	English	units
General				
Density	982 - 1.16e3	kg/m^3	0.0355 - 0.0418	lb/ft^3
Mechanical				
Yield Strength	2.37e7 - 3.15e7	Pa	3.44 - 4.57	ksi
Tensile Strength	2.1e7 - 2.3e7	Pa	3.04 - 3.33	ksi
Elongation	0.258 - 0.705	% strain	25.8 - 70.5	% strain
Hardness (Vickers)	7.85e7 - 8.24e7	Pa	8 - 8.41	HV
Impact Strength (unnotched)	1.81e4 - 4.04e4	J/m^2	8.62 - 19.2	ft.lbf/in^2
Fracture Toughness	1.41e6 - 1.48e6	Pa/m^0.5	1.28 - 1.134	ksi/in^0.5
Young's Modulus	1.5e9 - 2.08e9	Pa	0.218 - 0.302	10^6 psi
Thermal				
Max Service Temperature	80.6 - 103	°C	177 - 218	°F
Melting Temperature	161 - 170	°C	322 - 338	°F
Insulator or Conductor	Insulator		Insulator	
Specific Heat Capability	1.67e3 - 1.71e3	J/kg °C	0.399 - 0.407	BTU/lb. °F
Thermal Expansion Coefficent	5.6e-5 - 6.42e-5	strain/°C	31.1 - 35.7	µstrain/°F
Eco				
CO2 Footprint	3.43 - 3.79	kg/kg	3.43 - 3.79	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 (8-16-12). Specific material properties vary by manufacturer. Please contact a Dielectric application engineer for help in choosing the optimal material for your application and budget.