Dielectric CORPORATION

KEL-F®(PolyChloroFluoroEthylene)

General Material Properties

Property	Metric	units	English	units
General				
Density	1.33e3 - 1.43e3	kg/m^3	0.048 - 0.0517	lb/ft^3
Mechanical				
Yield Strength	8.62e7 - 8.96e7	Pa	12.5 - 13	ksi
Tensile Strength	7.24e7 - 1.18e8	Pa	10.5 - 17.1	ksi
Elongation	0.075 - 0.9	% strain	7.5 - 90	% strain
Hardness (Vickers)	2.54e8 - 2.64e8	Pa	25.9 - 26.9	HV
Impact Strength (unnotched)	7.9e3 - 9e3	J/m^2	3.76 - 4.28	ft.lbf/in^2
Fracture Toughness	2.16e6 - 6.4e6	Pa/m^0.5	1.97 - 5.82	ksi/in^0.5
Young's Modulus	2.07e9 - 2.76e9	Pa	0.3 - 0.4	10^6 psi
Thermal				
Max Service Temperature	221 - 241	°C	430 - 466	°F
Melting Temperature	375 - 401	°C	707 - 754	°F
Insulator or Conductor	Insulator		Insulator	
Specific Heat Capability	1.39e3 - 1.45e3	J/kg °C	0.333 - 0.346	BTU/lb. °F
Thermal Expansion Coefficent	8.1e-5 - 1.01e-4	strain/°C	45 - 56	µstrain/°F
Eco				
CO2 Footprint	9.08 - 10	kg/kg	9.08 - 10	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.