



Halar®(Ethylene-Chlorotrifluoroethylene)

General Material Properties

Property	Metric	units	English	units
General				
Density	1.68e3 - 1.69e3	kg/m ³	0.0607 - 0.0611	lb/ft ³
Mechanical				
Yield Strength	3.1e7 - 3.38e7	Pa	4.5 - 4.9	ksi
Tensile Strength	4.14e7 - 4.83e7	Pa	6 - 7.01	ksi
Elongation	2.0 - 3.0	% strain	200 - 300	% strain
Hardness (Vickers)	9.12e7 - 9.9e7	Pa	9.3 - 10.1	HV
Impact Strength (unnotched)	1.9e5 - 2e5	J/m ²	90.4 - 95.2	ft.lbf/in ²
Fracture Toughness	1.97e6 - 5.9e6	Pa/m ^{0.5}	1.79 - 5.37	ksi/in ^{0.5}
Young's Modulus	1.61e9 - 1.7e9	Pa	0.234 - 0.247	10 ⁶ psi
Thermal				
Max Service Temperature	122 - 138	°C	252 - 280	°F
Melting Temperature	220 - 245	°C	428 - 473	°F
Insulator or Conductor	Insulator		Insulator	
Specific Heat Capability	1.21e3 - 1.26e3	J/kg °C	0.289 - 0.301	BTU/lb. °F
Thermal Expansion Coefficient	1.41e-4 - 1.47e-4	strain/°C	78.4 - 81.6	μstrain/°F
Eco				
CO2 Footprint	8.09 - 8.94	kg/kg	8.09 - 8.94	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.