



Torlon® (Polyamide-imide)

General Material Properties

Property	Metric	units	English	units
General				
Density	1.4e3 - 1.45e3	kg/m ³	0.0506 - 0.0524	lb/ft ³
Mechanical				
Yield Strength	3.8e7 - 4.2e7	Pa	5.51 - 6.09	ksi
Tensile Strength	1.82e8 - 2.02e8	Pa	26.4 - 29.3	ksi
Elongation	0.139 - 0.161	% strain	13.9 - 16.1	% strain
Hardness (Vickers)	1.12e8 - 1.34e8	Pa	11.4 - 12.6	HV
Impact Strength (notched)	1.33e4 - 1.47e4	J/m ²	6.33 - 6.99	ft.lbf/in ²
Fracture Toughness	3.68e6 - 4.48e6	Pa/m ^{0.5}	3.35 - 4.08	ksi/in ^{0.5}
Young's Modulus	478e9 - 5.02e9	Pa	0.693 - 0.728	10 ⁶ psi
Thermal				
Max Service Temperature	200 - 220	°C	392 - 428	°F
Insulator or Conductor	Insulator		Insulator	
Specific Heat Capability	994 - 1.03e3	J/kg °C	0.237 - 0.247	BTU/lb. °F
Thermal Expansion Coefficient	2.98e-5 - 3.14e-5	strain/°C	16.6 - 17.4	μstrain/°F
Eco				
CO2 Footprint	9.73 - 10.8	kg/kg	9.73 - 10.8	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.