



## PSU (Polysulfone)

### General Material Properties

Property	Metric	units	English	units
<b>General</b>				
Density	1.23e3 - 1.25e3	kg/m <sup>3</sup>	0.0444 - 0.0452	lb/ft <sup>3</sup>
<b>Mechanical</b>				
Yield Strength	7.55e7 - 8.33e7	Pa	11 - 12.1	ksi
Tensile Strength	9.44e7 - 1.04e8	Pa	13.7 - 15.1	ksi
Elongation	0.4 - 0.8	% strain	40 - 80	% strain
Hardness (Vickers)	2.23e8 - 2.45e8	Pa	22.7 - 25	HV
Impact Strength (unnotched)	1.9e5 - 2e5	J/m <sup>2</sup>	90.4 - 95.2	ft.lbf/in <sup>2</sup>
Fracture Toughness	1.89e6 - 4.69e6	Pa/m <sup>0.5</sup>	1.72 - 4.27	ksi/in <sup>0.5</sup>
Young's Modulus	0.0145 - 0.0153	Pa	0.38 - 0.4	10 <sup>6</sup> psi
<b>Thermal</b>				
Max Service Temperature	147 - 172	°C	297 - 342	°F
Insulator or Conductor	Insulator		Insulator	
Specific Heat Capability	1.5e3 - 1.56e3	J/kg °C	0.358 - 0.373	BTU/lb. °F
Thermal Expansion Coefficient	5.47e-5 - 5.69e-5	strain/°C	03.4 - 31.6	μstrain/°F
<b>Eco</b>				
CO2 Footprint	5.36 - 5.92	kg/kg	5.36 - 5.92	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.