



## Noryl®(Polyphenylene Oxide)

### General Material Properties

Property	Metric	units	English	units
<b>General</b>				
Density	1.09e3 - 1.11e3	kg/m <sup>3</sup>	0.0394 - 0.0401	lb/ft <sup>3</sup>
<b>Mechanical</b>				
Yield Strength	4.46e7 - 4.92e7	Pa	6.47 - 7.14	ksi
Tensile Strength	5.58e7 - 6.15e7	Pa	8.09 - 8.92	ksi
Elongation	0.558 - 0.645	% strain	55.8 - 64.5	% strain
Hardness (Vickers)	1.31e8 - 1.45e8	Pa	13.4 - 14.8	HV
Impact Strength (notched)	1.82e4 - 4.31e4	J/m <sup>2</sup>	8.66 - 20.5	ft.lbf/in <sup>2</sup>
Fracture Toughness	2.12e6 - 3.1e6	Pa/m <sup>0.5</sup>	1.93 - 2.82	ksi/in <sup>0.5</sup>
Young's Modulus	1.99e9 - 2.17e9	Pa	0.289 - 0.315	10 <sup>6</sup> psi
<b>Thermal</b>				
Max Service Temperature	73 - 87	°C	163 - 189	°F
Melting Temperature	177 - 222	°C	351 - 432	°F
Insulator or Conductor	Insulator		Insulator	
Specific Heat Capability	1.63e3 - 1.7e3	J/kg °C	0.39 - 0.405	BTU/lb. °F
Thermal Expansion Coefficient	8.91e-5 - 9.09e-5	strain/°C	49.5 - 50.5	μstrain/°F
<b>Eco</b>				
CO2 Footprint	1.54 - 1.56	kg/kg	1.54 - 1.56	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.