



# Technical Data Sheet

## A Patch/Tech Patches/Tech Wraps



PTFE Coated Glass Fabric is the base substrate of Tech-Bond's A Patches/ A Wraps. The Technical Data Sheet below provide the properties of glass fabric. Glass fabric is impervious or highly resistant to a wide range of chemicals (except concentrated acids and bases). In addition, glass oxide fabric is impervious to oils, gasoline, diesel, aromatics fuels, etc.

Physical Properties	Metric	English	Comments
Density	2.54 - 2.60 g/cc	0.0918 - 0.0939 lb/in <sup>3</sup>	
Mechanical Properties	Metric	English	Comments
Tensile Strength, Ultimate 	521 MPa @Temperature -190 °C	75500 psi @Temperature -310 °F	
	1725 MPa @Temperature 540 °C	250200 psi @Temperature 1000 °F	
	2620 MPa @Temperature 370 °C	380000 psi @Temperature 698 °F	
	3450 - 3790 MPa @Temperature 22.0 °C	500000 - 550000 psi @Temperature 71.6 °F	Virgin strength
Elongation at Break	4.8 %	4.8 %	
Modulus of Elasticity 	72.4 GPa	10500 ksi	
	72.3 GPa @Temperature 540 °C	10500 ksi @Temperature 1000 °F	
Poissons Ratio	0.20	0.20	
Shear Modulus	30.0 GPa	4350 ksi	Calculated
Electrical Properties	Metric	English	Comments
Electrical Resistivity	4.02e+12 ohm-cm	4.02e+12 ohm-cm	
Dielectric Constant 	5.9 - 6.4 @Frequency 60 Hz	5.9 - 6.4 @Frequency 60 Hz	
	6.3 - 6.6 @Frequency 1e+6 Hz	6.3 - 6.6 @Frequency 1e+6 Hz	
Dielectric Strength	10.3 kV/mm	262 kV/in	
Dissipation Factor 	0.0025 @Frequency 1e+6 Hz	0.0025 @Frequency 1e+6 Hz	
	0.0034 @Frequency 60 Hz	0.0034 @Frequency 60 Hz	
Thermal Properties	Metric	English	Comments
CTE, linear 	5.00 μm/m-°C @Temperature 20.0 °C	2.78 μin/in-°F @Temperature 68.0 °F	
	5.40 μm/m-°C @Temperature -30.0 - 250 °C	3.00 μin/in-°F @Temperature -22.0 - 482 °F	
Specific Heat Capacity 	0.810 J/g-°C @Temperature 23.0 °C	0.194 BTU/lb-°F @Temperature 73.4 °F	
	1.03 J/g-°C @Temperature 200 °C	0.246 BTU/lb-°F @Temperature 392 °F	
Thermal Conductivity	1.30 W/m-K	9.02 BTU-in/hr-ft <sup>2</sup> -°F	
Melting Point	<= 1725 °C	<= 3137 °F	
Softening Point	840.6 °C	1545 °F	
Optical Properties	Metric	English	Comments
Refractive Index	1.558	1.558	
	1.562	1.562	bulk annealed

<b>Component Element Properties</b>	<b>Metric</b>	<b>English</b>	<b>Comments</b>
Al2O3	15.2 %	15.2 %	
BaO	8.0 %	8.0 %	
CaO	17.2 %	17.2 %	
MgO	4.7 %	4.7 %	
NaO2	0.60 %	0.60 %	
SiO2	54.3 %	54.3 %	

#### **Descriptive Properties**

Velocity of sound, m/s	5330
------------------------	------

### **Tech-Bond Solutions**

381 S. 30th St., Unit L

Heath, OH 43056

[www.tbbonding.com](http://www.tbbonding.com) - [sales@tech-bond.net](mailto:sales@tech-bond.net)

877 565 7225 - 866 411 0032