

Properties of Richlite® Industrial Composites

Electrical Properties	
Dielectric Strength (Volts/mil).....	150
Dielectric Constant.....	9.24
Dissipation Facto.....	0.29
Thermal Properties	
Coeff. Of Thermal Expansion In X Dir ($\mu\text{in/in.}^\circ\text{F}$).....	5.2
Coeff of Thermal Expansion In Y Dir ($\mu\text{in/in.}^\circ\text{F}$).....	12.8
Coeff of Thermal Expansion In Z Dir ($\mu\text{in/in.}^\circ\text{F}$).....	45.9/73.5**
Thermal Conductivity (Cal cm/cm ² sec °C).....	0.00051
Tensile Strength	
X Direction(psi).....	19,200
Y Direction (psi).....	13,100
Compressive Strength	
X Direction (psi).....	18,400
Strain @ Failure.....	7.09%
Y Direction (psi).....	15,900
Strain @ Failure.....	7.15%
Z Direction (psi).....	30,000
Strain @ Failure.....	≈20%
Flexural Strength (Face In Tension)	
X Direction (psi).....	22,000
Y Direction (psi).....	17,300
Flexural Strength (Edge In Tension)	
X Direction (psi).....	20,400
Y Direction (psi).....	16,100
Izod Impact (Face Impact)	
X Direction (ft. lb. Per Inch of width).....	2.48
Y Direction (ft. lb. Per Inch of width).....	1.46
Izod Impact (Edge Impact)	
X Direction (ft. lb. Per Inch of width).....	0.68
Y Direction (ft. lb. Per Inch of width).....	0.62
Abrasion Resistance – Taber Abraser (CS-17) (1/4x”x4”x4”)	
Weight Loss per 1000 revs.....	0.0112%
Wear per 1000 revs (Inches).....	0.00011
Coefficient of Friction (Unpolished).....	0.2
Burning Rate.....	Very Slow
Aging.....	Improves Mechanical and Electrical Properties
Sunlight.....	Darkens Surface
Clarity.....	Opaque
Weak Acids.....	None to slight depending on Acid
Strong Acids.....	None to slight for reducing and organic Decomposed by oxidizing acids
Weak Alkali.....	Slight to marked depending on alkalinity
Strong Alkali.....	Decomposes
Organic Solvents.....	None
Metal Inserts.....	Inert

“The two values for C.O.L.T.E. represent coefficients below and above glass transition temperature (130°F) respectively.