

REXOLITE® 1422 PROPERTIES CHART

<u>ELECTRICAL</u>		Test Method	Typical Value
<i>Dielectric Constant</i>	<i>1 KHz to 500 Ghz</i>	<i>ASTM-D-1531</i>	<i>2.53 +/- .03</i>
<i>Dissipation Factor</i>	<i>@ 1 KHz</i>	<i>" "</i>	<i>0.0001</i>
	<i>@ 1 Mhz</i>	<i>" "</i>	<i>0.0002</i>
	<i>@ 30 MHz</i>		<i>0.0002</i>
	<i>@ 10 Ghz</i>	<i>IPC-TM-650</i>	<i>0.0001</i>
	<i>@ 120 Ghz</i>	<i>Army Electronics</i>	<i>0.0008</i>
	<i>@ 500 Ghz</i>	<i>" "</i>	<i>0.0003</i>
<i>Dielectric Strength -</i>	<i>(.010 Tk)</i>	<i>ASTM-D-149</i>	
<i>Short time</i>	<i>(volts/mil)</i>	<i>" "</i>	<i>2100</i>
<i>Step by step</i>	<i>(volts/mil)</i>	<i>" "</i>	<i>2000</i>
<i>Volume Resistivity</i>	<i>(Megohm-cm)</i>	<i>IPC-TM-650</i>	<i>1.1x10¹⁶</i>
<i>Surface Resistivity</i>	<i>(Megohm)</i>	<i>" "</i>	<i>4.5x10¹⁴</i>
<u>PHYSICAL</u>		Test Method	Typical Value
<i>Temperature Range (Recommended)</i>			<i>-60 ° C to 100 ° C</i>
<i>Glass Transition Temp.</i>			<i>114 ° C (237 ° F)</i>
<i>Specific Gravity</i>		<i>ASTM-D-792</i>	<i>1.05</i>
<i>Tensile Strength</i>		<i>ASTM-D-638</i>	<i>10,500 psi</i>
<i>Tensile Modulus</i>		<i>ASTM-D-638</i>	<i>4.5 x 10⁵ psi</i>
<i>Compression Strength</i>		<i>ASTM-D-695</i>	<i>18,000 psi</i>
<i>Flexural Strength</i>		<i>ASTM-D-790</i>	<i>18,000 psi</i>
<i>Coefficient Thermal Expansion</i>		<i>ASTM-D-3386</i>	<i>7.0 x 10⁻⁵ °C</i>
<i>Thermal Conductivity</i>		<i>ASTM-E-1530</i>	<i>1.23 Btu-in/hr-ft²·°F</i>
<i>Water Absorption</i>		<i>ASTM-D-570</i>	<i>.08 % Max</i>
<i>Poisson's Ratio</i>			<i>.42</i>
<i>Acoustic Impedance</i>			<i>2.5</i>
<i>Velocity of Sound</i>			<i>93 x 10³ Inches/Sec.</i>
<i>Rockwell Hardness</i>		<i>ASTM-D-785</i>	<i>R130</i>
<i>Izod Impact Strength</i>		<i>ASTM-D-256-97</i>	<i>1.2 ft•lbf/in²</i>
<i>Izod Impact Strength Un-Notched</i>			<i>6.0 ft•lbf/in²</i>
<i>Out-Gassing @ 125 ° C</i>		<i>ASTM-E-595</i>	
	<i>TML</i>		<i>.04 %</i>
	<i>CVCM</i>		<i>.01 %</i>
	<i>WVR</i>		<i>.03</i>

<p style="text-align: center;"><u>CHEMICAL</u></p> <p><i>Alkalis (Sodium/Potassium Hydroxide)</i></p> <p><i>Alcohols (Methanol/Isopropanol)</i></p> <p><i>Aliphatic Hydrocarbons (Pentane-Cyclohexane/n-Heptane/n-Hexane)</i></p> <p><i>Mineral Acids (Hydrochloric/Sulfuric/Nitric)</i></p> <p><i>Aromatic Hydrocarbons (Benzene/toluene/xylene/styrene)</i></p> <p><i>Chlorinated Hydrocarbons (Carbon Tetrachloride/Chloroform)</i></p>	<p>..... No effect</p> <p>..... No effect</p> <p>..... No effect</p> <p>..... No effect</p> <p>..... Swells</p> <p>..... Swells</p>
<p style="text-align: center;"><u>OPTICAL</u></p> <p><i>Total Transmission 1" thick</i></p> <p><i>Refractive Index 20C 436 Nanometers</i></p> <p>" " 467 "</p> <p>" " 480 "</p> <p>" " 508 "</p> <p>" " 546 "</p> <p>" " 589 "</p>	<p style="text-align: right;">Typical Value</p> <p>..... 87%</p> <p style="text-align: right;">1.614</p> <p style="text-align: right;">1.607</p> <p style="text-align: right;">1.604</p> <p style="text-align: right;">1.599</p> <p style="text-align: right;">1.594</p> <p style="text-align: right;">1.589</p>

FEDERAL SPECIFICATION FOR REXOLITE 1422 IS LP- 516A - TYPE E2 (FORMERLY MIL-P-77C-E2)

® REGISTERED TRADEMARK

ALL INFORMATION CONTAINED HEREIN IS OFFERED IN GOOD FAITH AND IS BELIEVED TO BE RELIABLE.

(Revised 7/31/07)