Polyester Resin Composite
(Contains additional low-friction internal lubricants resulting in extremely low friction properties)

**SPECIFICATIONS**

<table>
<thead>
<tr>
<th>Property</th>
<th>Spec</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hardness</td>
<td>Rockwell M</td>
<td>100</td>
</tr>
<tr>
<td>Co Friction</td>
<td>Internal</td>
<td>0.08-0.15</td>
</tr>
<tr>
<td>Density (g/cm³)</td>
<td>DIN 53479</td>
<td>1.25-1.48</td>
</tr>
<tr>
<td>Tensile Strength-Lengthwise</td>
<td>DIN 53504</td>
<td>90 N/mm²</td>
</tr>
<tr>
<td>Tensile Strength-Crosswise</td>
<td>DIN 53504</td>
<td>76 N/mm²</td>
</tr>
<tr>
<td>Compression Strength ⊥ to Laminate</td>
<td></td>
<td>345 N/mm²</td>
</tr>
<tr>
<td>Compression Strength = to Laminate</td>
<td></td>
<td>138 N/mm²</td>
</tr>
<tr>
<td>Compressive Yield</td>
<td></td>
<td>85 MPa</td>
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<tr>
<td>Modulus Compression ⊥</td>
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<td>1900-2000 N/mm²</td>
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<tr>
<td>Flexural Strength ⊥ to Laminate</td>
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<td>138 N/mm²</td>
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<tr>
<td>Flexural Strength = to Laminate</td>
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<td>107 N/mm²</td>
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<tr>
<td>Shear Strength</td>
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<td>134 N/mm²</td>
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<tr>
<td>Water Absorption</td>
<td></td>
<td>&lt;0.1%</td>
</tr>
<tr>
<td>Coefficient of thermal expansion</td>
<td></td>
<td>20 to 100°C</td>
</tr>
<tr>
<td>⊥ to laminate</td>
<td>X 10⁻³</td>
<td>6 to 7</td>
</tr>
<tr>
<td>= to laminate</td>
<td>X 10⁻³</td>
<td>12 to 13</td>
</tr>
<tr>
<td>Min Service Temp</td>
<td></td>
<td>-35°C</td>
</tr>
<tr>
<td></td>
<td></td>
<td>-31°F</td>
</tr>
<tr>
<td>Max Service Temp</td>
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<td>120°C</td>
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<td></td>
<td></td>
<td>240°F</td>
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<tr>
<td>Color</td>
<td></td>
<td>Gray/Blue/Yellow</td>
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</tbody>
</table>

**DESCRIPTION**

MTC110 is a polyester resin composite with hardness 100 Rockwell M. Fabric reinforced composite materials are engineered from liquid thermosetting resins impregnated in fabric and subsequently cured to form solid shapes. Various thermosetting resins are available for use as bushings and bearing as unsaturated polyester. Within each category there are numerous resins to choose from. Prudent selection of a resin depends upon its viscosity, desired thermal, chemical or mechanical properties. Unsaturated polyester resin is most commonly used. Vinyl ester resin has higher mechanical properties and better chemical and temperature resistance than unsaturated polyester resin. Thermoset composite materials have highly cross linked molecular networks. As a result, they have much higher mechanical strength than thermoplastics.