PRODUCT DATA SHEET

DESCRIPTION
Toray PMC CFRT® (TW-1000) is a reinforced thermoplastic composite laminate. It blends the benefits of a thermoplastic polymer matrix with woven carbon and glass fibers in a twill weave for enhanced shapes and performance. The TW-1000 style laminate is available in a single-layer product; carbon in one direction and glass fibers at a 90° orientation to the carbon. This product is ultra-thin, lightweight, and resilient for improved energy return.

FEATURES
› Twill weave of carbon and glass fibers
› Bi-directional reinforcement
› Lightest weight, thin, single layer
› Available in stock and custom colors

PRODUCT TYPE AND COMPOSITION
Carbon fiber content: 26%
Glass fiber content: 26%
Modified PMMA thermoplastic resin: 48%
(Noted: Percentages are by volume and are nominal values)

TYPICAL APPLICATIONS
› Footwear
› Recreational equipment
› Skates

SHELF LIFE
Stable indefinitely at 25°C (77°F)

Materials must be dried prior to heating and thermoforming. Please refer to the TPMC Processing Instructions.
**MECHANICAL PROPERTIES**

<table>
<thead>
<tr>
<th>Properties</th>
<th>Method</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flexural Rigidity</td>
<td>ASTM D790-10</td>
<td>&gt; 45 N-cm</td>
</tr>
<tr>
<td>Flexural Strength</td>
<td>ASTM D790-10</td>
<td>&gt; 148 MPa*</td>
</tr>
<tr>
<td>Flexural Modulus</td>
<td>ASTM D790-10</td>
<td>&gt; 7445 MPa*</td>
</tr>
</tbody>
</table>

*Results per testing performed in carbon direction.