# Plexiglas® V825T-9110 Black

Acrylic Resin Technical Data Sheet

<table>
<thead>
<tr>
<th>PROPERTIES</th>
<th>VALUE</th>
<th>UNIT OF MEASURE</th>
<th>TEST METHOD</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>GENERAL CHARACTERISTICS</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Density (23°C/73.4°F)</td>
<td>1.19</td>
<td>g/cm³</td>
<td>ISO 1183</td>
</tr>
<tr>
<td>Water Absorption, 24H (23°C/73.4°F, 50% HR)</td>
<td>0.3</td>
<td>%</td>
<td>ISO 62</td>
</tr>
<tr>
<td>Mold Shrinkage</td>
<td>0.2 - 0.6</td>
<td>%</td>
<td>ASTM D955</td>
</tr>
<tr>
<td><strong>RHEOLOGICAL PROPERTIES</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Melt Index (230°C/446°F, 3.8kg)</td>
<td>2.8</td>
<td>g/10min</td>
<td>ISO 1133</td>
</tr>
<tr>
<td>PROCESS – Melt Temperature (Min-Max)</td>
<td>230-250/446-482</td>
<td>°C/°F</td>
<td></td>
</tr>
<tr>
<td>PROCESS – Mold Temperature (Min-Max)</td>
<td>70-90/158-194</td>
<td>°C/°F</td>
<td></td>
</tr>
<tr>
<td>PROCESS – Drying Conditions (4H)</td>
<td>85-90/185-194</td>
<td>°C/°F</td>
<td></td>
</tr>
<tr>
<td><strong>MECHANICAL PROPERTIES</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tensile Strength at Yield (23°C/73.4°F)</td>
<td>70</td>
<td>MPa</td>
<td>ISO 527</td>
</tr>
<tr>
<td>Elongation at Break (23°C/73.4°F)</td>
<td>6</td>
<td>%</td>
<td>ISO 527</td>
</tr>
<tr>
<td>Flexural Modulus (23°C/73.4°F)</td>
<td>3300</td>
<td>MPa</td>
<td>ISO 178</td>
</tr>
<tr>
<td>Maximum Flexural Stress (23°C/73.4°F)</td>
<td>103</td>
<td>MPa</td>
<td>ISO 178</td>
</tr>
<tr>
<td>Compressive Strength (23°C/73.4°F)</td>
<td>117</td>
<td>MPa</td>
<td>ISO 604</td>
</tr>
<tr>
<td>Charpy Impact Resistance – Un-notched (23°C/73.4°F)</td>
<td>20</td>
<td>kJ/m²</td>
<td>ISO 179-1EU</td>
</tr>
<tr>
<td>Charpy Impact Resistance – Notched (23°C/73.4°F)</td>
<td>2</td>
<td>kJ/m²</td>
<td>ISO 179-1EA</td>
</tr>
<tr>
<td>Izod Impact Resistance – Notched (23°C/73.4°F)</td>
<td>1.8</td>
<td>kJ/m²</td>
<td>ISO 180</td>
</tr>
<tr>
<td>Surface Hardness (Rockwell Scale M, (23°C/73.4°F))</td>
<td>97</td>
<td>HRM</td>
<td>ASTM D785</td>
</tr>
<tr>
<td><strong>COLOR COORDINATES</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>L (Light D65 ·2° / 3mm)</td>
<td>23.40</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a (Light D65 ·2° / 3mm)</td>
<td>-0.15</td>
<td></td>
<td></td>
</tr>
<tr>
<td>b (Light D65 ·2° / 3mm)</td>
<td>-0.69</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>THERMAL PROPERTIES</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vicat Softening Point (B50 (50N))</td>
<td>108/226</td>
<td>°C°F</td>
<td>ISO 306</td>
</tr>
<tr>
<td>HDT (1.82 Mpa)¹</td>
<td>100/212</td>
<td>°C°F</td>
<td>ISO 75</td>
</tr>
<tr>
<td>Coefficient of Linear Expansion (-30°C/-22°F ; 23°C/73.4°F)</td>
<td>65</td>
<td>10⁴ K</td>
<td>ASTM D696</td>
</tr>
<tr>
<td>Specific Heat</td>
<td>2093</td>
<td>J/(kg°C)</td>
<td></td>
</tr>
<tr>
<td><strong>FLAMMABILITY</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fire Resistance (3.2mm)</td>
<td>HB</td>
<td>Class</td>
<td>UL-94</td>
</tr>
</tbody>
</table>

¹ Samples were annealed at 88°C/190°F for 16 hours.

Data given are average values and should not be used for specification purposes.


See SDS for Health & Safety Considerations. Plexiglas® is a registered tradename of Arkema in the Americas.

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