CELSTRAN® PA66-CF40-01-US | PA66 | Specialty

**Description**

40% long carbon fiber reinforced Nylon 6/6

<table>
<thead>
<tr>
<th>Physical properties</th>
<th>Value</th>
<th>Unit</th>
<th>Test Standard</th>
</tr>
</thead>
<tbody>
<tr>
<td>Density</td>
<td>1340</td>
<td>kg/m³</td>
<td>ISO 1183</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Mechanical properties</th>
<th>Value</th>
<th>Unit</th>
<th>Test Standard</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tensile modulus (1mm/min)</td>
<td>31000</td>
<td>MPa</td>
<td>ISO 527-2/1A</td>
</tr>
<tr>
<td>Tensile stress at break (5mm/min)</td>
<td>290</td>
<td>MPa</td>
<td>ISO 527-2/1A</td>
</tr>
<tr>
<td>Tensile strain at break (5mm/min)</td>
<td>1.06</td>
<td>%</td>
<td>ISO 527-2/1A</td>
</tr>
<tr>
<td>Flexural modulus (23°C)</td>
<td>26000</td>
<td>MPa</td>
<td>ISO 178</td>
</tr>
<tr>
<td>Flexural strength (23°C)</td>
<td>464</td>
<td>MPa</td>
<td>ISO 178</td>
</tr>
<tr>
<td>Charpy notched impact strength @ 23°C</td>
<td>24</td>
<td>kJ/m²</td>
<td>ISO 179/1eA</td>
</tr>
</tbody>
</table>

**Typical injection moulding processing conditions**

Pre Drying:

**Necessary low maximum residual moisture content: 0.18%**

CELSTRAN PA should in principle be predried. Because of the necessary low maximum residual moisture content the use of dry air dryers is recommended. The dew point should be <= -30°C. The time between drying and processing should be as short as possible.

Note: Material can be over dried and may discolor.

**Drying time: 2 - 4 h**

**Drying temperature: 70 - 80 °C**

<table>
<thead>
<tr>
<th>Temperature</th>
<th>Mold (°C)</th>
<th>Melt (°C)</th>
<th>Nozzle (°C)</th>
<th>Zone4 (°C)</th>
<th>Zone3 (°C)</th>
<th>Zone2 (°C)</th>
<th>Zone1 (°C)</th>
<th>Feed (°C)</th>
<th>Hopper (°C)</th>
</tr>
</thead>
<tbody>
<tr>
<td>min (°C)</td>
<td>80</td>
<td>300</td>
<td>300</td>
<td>300</td>
<td>300</td>
<td>290</td>
<td>285</td>
<td>20</td>
<td>70</td>
</tr>
<tr>
<td>max (°C)</td>
<td>100</td>
<td>315</td>
<td>315</td>
<td>315</td>
<td>310</td>
<td>300</td>
<td>295</td>
<td>50</td>
<td>80</td>
</tr>
</tbody>
</table>
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