# Ultracur3D® EPD 2006

Rigid daylight resin with high stiffness and temperature resistance.

## General Properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Norm</th>
<th>Typical Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>-</td>
<td>Black</td>
</tr>
<tr>
<td>Viscosity, 30 °C</td>
<td>Cone/Plate Rheometer¹</td>
<td>310 mPas</td>
</tr>
<tr>
<td>Viscosity, 50 °C</td>
<td>Cone/Plate Rheometer¹</td>
<td>88 mPas</td>
</tr>
<tr>
<td>Density</td>
<td>ASTM D792</td>
<td>1.2 g/cm³</td>
</tr>
</tbody>
</table>

## Tensile Properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Norm (5 mm/min)</th>
<th>Typical Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>E Modulus</td>
<td>ASTM D638</td>
<td>2370 MPa</td>
</tr>
<tr>
<td>Ultimate Tensile Strength</td>
<td>ASTM D638</td>
<td>50 MPa</td>
</tr>
<tr>
<td>Elongation at Break</td>
<td>ASTM D638</td>
<td>10.3 %</td>
</tr>
</tbody>
</table>

## Flexural Properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Norm</th>
<th>Typical Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flexural Modulus</td>
<td>ASTM D790</td>
<td>2210 MPa</td>
</tr>
<tr>
<td>Flexural Strength</td>
<td>ASTM D790</td>
<td>90 MPa</td>
</tr>
</tbody>
</table>

## Impact Properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Norm</th>
<th>Typical Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>Notched Izod (Machined), -30 °C</td>
<td>ASTM D256</td>
<td>11 J/m</td>
</tr>
<tr>
<td>Notched Izod (Machined), 23 °C</td>
<td>ASTM D256</td>
<td>11 J/m</td>
</tr>
<tr>
<td>Charpy notched, 23 °C</td>
<td>ISO 179-1</td>
<td>0.7 kJ/m²</td>
</tr>
</tbody>
</table>

## Thermal Properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Norm</th>
<th>Typical Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>HDT at 0.45 MPa</td>
<td>ASTM D648</td>
<td>81 °C</td>
</tr>
<tr>
<td>HDT at 1.82 MPa</td>
<td>ASTM D648</td>
<td>61 °C</td>
</tr>
<tr>
<td>Flammability</td>
<td>UL 94 1.5 mm</td>
<td>HB</td>
</tr>
</tbody>
</table>

## Hardness

<table>
<thead>
<tr>
<th>Property</th>
<th>Norm</th>
<th>Typical Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shore D</td>
<td>ASTM D2240</td>
<td>80</td>
</tr>
</tbody>
</table>

## Other

<table>
<thead>
<tr>
<th>Property</th>
<th>Norm</th>
<th>Typical Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water Absorption, Short Term (24 hours)</td>
<td>ASTM D570</td>
<td>0.61 %</td>
</tr>
</tbody>
</table>

¹ Determined with TA-Instrument DHR rheometer, cone/plate, diameter 60 mm, shear rate 100 s⁻¹

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