Ascend’s Vydyne® XHT is the clear choice for high temperature endurance. Vydyne XHT combines unique polymer chemistries with proprietary heat stabilization technology to provide a broad window of long-term high temperature performance up to 230°C. Because it’s a Vydyne product, XHT offers exceptional processability, durability and mechanical properties.
Vydyne® XHT Series

Product features:
- Broad operating window: 180°C to 230°C
- Excellent flow for processing
- High temperature chemical resistance
- Excellent fatigue endurance
- Regrindable and recyclable

Benefits:
- Reliable extreme heat-aging performance
- Excellent surface appearance
- High weld strength for intricate and integrated parts
- Critical dimensional stability for fluid-handling parts

Applications:
- Charge air cooler end caps
- Charge air ducts
- Integrated air intake manifold
- Resonator
- Exhaust gas recirculator

Vydyne R535XHT
- Glass fiber reinforced PA66
- Proprietary multistage heat-stabilizing technology
- Over 70% property retention after 3,000 hours of heat aging at 210°C
- Higher knit line strength

Vydyne R735XHT
- Glass fiber reinforced PA66 copolymer
- Proprietary multistage heat-stabilizing technology
- Over 100% property retention after 3,000 hours of heat aging at 230°C
- High temperature chemical resistance, including exhaust gas (EGR)
- Higher ductility at elevated temperatures
- Higher knit line strength
### Product Characteristic

<table>
<thead>
<tr>
<th>Product Characteristic</th>
<th>Test Method</th>
<th>Units</th>
<th>R535XHT</th>
<th>R735XHT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Density</td>
<td>ISO 1183</td>
<td>g/cm³</td>
<td>1.44</td>
<td>1.42</td>
</tr>
<tr>
<td>Tensile Strength</td>
<td>ISO 527-2</td>
<td>MPa</td>
<td>199</td>
<td>192</td>
</tr>
<tr>
<td>Tensile Elongation</td>
<td>ISO 527-2</td>
<td>%</td>
<td>3.0</td>
<td>3.1</td>
</tr>
<tr>
<td>Tensile Modulus</td>
<td>ISO 527-2</td>
<td>MPa</td>
<td>12100</td>
<td>11100</td>
</tr>
<tr>
<td>Flexural Strength</td>
<td>ISO 178</td>
<td>MPa</td>
<td>294</td>
<td>277</td>
</tr>
<tr>
<td>Flexural Modulus</td>
<td>ISO 178</td>
<td>MPa</td>
<td>11000</td>
<td>10200</td>
</tr>
<tr>
<td>Notched Charpy (23C)</td>
<td>ISO 179</td>
<td>kJ/m²</td>
<td>14</td>
<td>13</td>
</tr>
<tr>
<td>Notched Charpy (-30C)</td>
<td>ISO 179</td>
<td>kJ/m²</td>
<td>11</td>
<td>12</td>
</tr>
<tr>
<td>Unnotched Charpy (23C)</td>
<td>ISO 179</td>
<td>kJ/m²</td>
<td>87</td>
<td>80</td>
</tr>
<tr>
<td>Unnotched Charpy (-30C)</td>
<td>ISO 179</td>
<td>kJ/m²</td>
<td>99</td>
<td>88</td>
</tr>
<tr>
<td>Melting Temperature</td>
<td>ISO 11357-3</td>
<td>°C</td>
<td>261</td>
<td>271</td>
</tr>
<tr>
<td>DTUL (1.8 Mpa)</td>
<td>ISO 75-2/A</td>
<td>°C</td>
<td>232</td>
<td>225</td>
</tr>
<tr>
<td>DTUL (0.45 MPa)</td>
<td>ISO 75-2/B</td>
<td>°C</td>
<td>254</td>
<td>254</td>
</tr>
</tbody>
</table>
About Ascend

Ascend Performance Materials is the largest fully integrated producer of polyamide 6,6 resin. We manufacture and reliably supply world-class plastics, fibers and chemicals that are used in thousands of everyday applications such as car parts, electronics and cable ties.

North America
1010 Travis Street
Suite 900
Houston, TX 77002
United States
+1 713 315 5700

Europe
Watson & Crick Hill Park
Rue Granbonpré 11 – Bâtiment H
B-1435 Mont-Saint-Guibert
Belgium
+32 10 608 600

Asia
Unit 3602,
Raffles City Office Towers
268 Xi Zang Road (M)
Shanghai 200001
China
+86 21 2315 0888

For more information, contact our expert applications specialists or visit ascendmaterials.com.