Headlight Bezel

We understand that in the automotive industry, you need reliable materials that perform to a higher standard. Ascend offers a comprehensive portfolio of engineered plastics for challenging automotive applications. We work with our customers to achieve the very best from our products. That's why we offer a worldwide support network of application specialists and technical experts. Our material knowledge and expertise in automotive systems can help you improve part performance and reduce material usage and cycle times.

Products Used: 21SPM, 22HSP

Application Description
The headlight bezel demands a unique balance of properties, including a smooth surface with no warping. The intense heat generated by headlights can exceed the capabilities of traditional materials like PC and PBT.

The Vydyne Difference
Vydyne® 21SPM and 22HSP can be vacuum-metallized without a surface pretreatment. Ascend’s Vydyne 21SPM is ideal for this application due to its superior balance of properties allowing for part design that meets the demanding headlight environment and still has an outstanding appearance. Vydyne PA66 offers a cost-competitive, high-temperature alternative.

Benefits
• Temperature Resistance
• Warp Resistance
• Superior Mold Flow
• Surface Appearance
• Plate-ability

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Product Properties

<table>
<thead>
<tr>
<th>21SPM, 22HSP</th>
<th>Property*</th>
<th>Test Method</th>
<th>Units</th>
<th>21SPM</th>
<th>22HSP</th>
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<tbody>
<tr>
<td>Density</td>
<td>ISO 1183</td>
<td>g/cm³</td>
<td>1.14</td>
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<tr>
<td>Tensile Stress</td>
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<td>MPa</td>
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<td>Flexural Modulus</td>
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<td>MPa</td>
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<td>Notched Izod</td>
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<td>kJ/m²</td>
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<td>DTUL @ 1.8 MPa</td>
<td>ISO 75-2/A</td>
<td>°C</td>
<td>72</td>
<td>70</td>
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*Dry as molded (DAM)

Application Development and Support

Our automotive applications team relies on years of industry experience and CAE support for tooling to help you optimize your system design. For more information, contact our expert applications specialists or visit ascendmaterials.com.

Ascend Performance Materials is the world's largest fully integrated producer of nylon 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.

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