BOMAR® BR-371S
Difunctional Aliphatic Urethane Acrylate Oligomer

**APPLICATIONS**
- Wood Coatings
- Pigmented Coatings
- Rigid Plastic Coatings

**FEATURES & BENEFITS**
- High Tensile Strength
- Non-Yellowing
- Improves Weatherability
- Imparts Superior Hardness and Scratch Resistance

BOMAR® BR-371S, a low molecular weight, difunctional, aliphatic polyether urethane acrylate oligomer, is a great fit for coatings that require high tensile strength, superior hardness, scratch resistance, and weathering resistance. Formulations with BR-371S yield hard, clear, non-yellowing films.

**UNCURED PROPERTIES**

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Viscosity, cP (75°C)</td>
<td>12,000</td>
</tr>
<tr>
<td>Pt-Co (APHA) Color</td>
<td>&lt;50</td>
</tr>
<tr>
<td>Refractive Index (25°C)</td>
<td>1.497</td>
</tr>
<tr>
<td>Density, g/cm³ (25°C)</td>
<td>1.10</td>
</tr>
</tbody>
</table>

**TYPICAL FORMULATIONS**

<table>
<thead>
<tr>
<th>Test Formulation Name</th>
<th>I30</th>
<th>TP50</th>
</tr>
</thead>
<tbody>
<tr>
<td>BR-371S</td>
<td>70</td>
<td>50</td>
</tr>
<tr>
<td>IBOA</td>
<td>30</td>
<td></td>
</tr>
<tr>
<td>TMPTA</td>
<td></td>
<td>50</td>
</tr>
<tr>
<td>TPGDA</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HDDA</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Omnirad™ 481</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Viscosity, 25°C*</td>
<td>42,000</td>
<td>1,600</td>
</tr>
</tbody>
</table>

* Brookfield – Small Samples Adapter

**CURED MECHANICAL PROPERTIES**

<table>
<thead>
<tr>
<th>Property</th>
<th>I30</th>
<th>TP50</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tensile Strength, psi**</td>
<td>6,700</td>
<td>4,900</td>
</tr>
<tr>
<td>Elongation, %**</td>
<td>10</td>
<td>6</td>
</tr>
<tr>
<td>Elastic Modulus, ksi**</td>
<td>180</td>
<td>120</td>
</tr>
<tr>
<td>Durometer Hardness</td>
<td>88D</td>
<td>86D</td>
</tr>
<tr>
<td>MEK Double Rubs (#)</td>
<td>&gt;200</td>
<td>&gt;200</td>
</tr>
</tbody>
</table>

**Tg (DMA) = 86°C; Peak tan delta; cured with 2 phr of Omnirad™ 481**

**ADHESION PROPERTIES**

<table>
<thead>
<tr>
<th>Substrate</th>
<th>I30</th>
<th>TP50</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABS</td>
<td>☑️</td>
<td>☑️</td>
</tr>
<tr>
<td>Acrylic (PMMA)</td>
<td>☑️</td>
<td></td>
</tr>
<tr>
<td>Aluminum</td>
<td>☑️</td>
<td></td>
</tr>
<tr>
<td>Glass</td>
<td>☑️</td>
<td></td>
</tr>
<tr>
<td>Polycarbonate</td>
<td>☑️</td>
<td>☑️</td>
</tr>
<tr>
<td>Stainless Steel</td>
<td>☑️</td>
<td>☑️</td>
</tr>
</tbody>
</table>

☑️ Recommended  ☑️HIGHLY RECOMMENDED  ☑️STRONGLY RECOMMENDED

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Technical Data Collection Prior to 2012 06/10/2014

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