LEXAN™ H6000 SHEET

PRODUCT DATASHEET

DESCRIPTION

LEXAN™ H6000 sheet is a high modulus, non-Chlorinated and non-Brominated compliant flame retardant opaque polycarbonate based sheet range available in standard and custom colors. In addition to good flammability performance, it offers excellent impact resistance, good stiffness and strength and ease of processing, making it an excellent candidate for a wide variety of applications in industries such as electrical/electronics and transportation (e.g. rail, bus).

TYPICAL PROPERTY VALUES

<table>
<thead>
<tr>
<th>PROPERTY</th>
<th>TEST METHOD</th>
<th>UNITS</th>
<th>VALUE</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>PHYSICAL</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Density</td>
<td>ISO 1183</td>
<td>g/cm²</td>
<td>1.28</td>
</tr>
<tr>
<td>Water absorption, 50% RH, 23 °C</td>
<td>ISO 62</td>
<td>%</td>
<td>0.1</td>
</tr>
<tr>
<td>Water absorption, saturation, 23°C</td>
<td>ISO 62</td>
<td>%</td>
<td>0.3</td>
</tr>
<tr>
<td><strong>MECHANICAL</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yield stress 50 mm/min</td>
<td>ISO 527</td>
<td>MPa</td>
<td>&gt;60</td>
</tr>
<tr>
<td>Yield strain 50 mm/min</td>
<td>ISO 527</td>
<td>%</td>
<td>4</td>
</tr>
<tr>
<td>Nominal strain at break 50 mm/min</td>
<td>ISO 527</td>
<td>%</td>
<td>50</td>
</tr>
<tr>
<td>Tensile modulus 1 mm/min</td>
<td>ISO 527</td>
<td>MPa</td>
<td>3300</td>
</tr>
<tr>
<td>Flexural strength 2 mm/min</td>
<td>ISO 178</td>
<td>MPa</td>
<td>100</td>
</tr>
<tr>
<td>Flexural modulus 2 mm/min</td>
<td>ISO 178</td>
<td>MPa</td>
<td>3350</td>
</tr>
<tr>
<td><strong>THERMAL</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vicat softening temperature, B/120</td>
<td>ISO 306</td>
<td>°C</td>
<td>114</td>
</tr>
<tr>
<td>Temperature of deflection under load (type A), 1.8 MPa, flat</td>
<td>ISO 75</td>
<td>°C</td>
<td>89</td>
</tr>
<tr>
<td><strong>OPTICAL</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Light transmission 3 mm</td>
<td>ASTM-D1003</td>
<td>%</td>
<td>n/a</td>
</tr>
</tbody>
</table>

**FIRE RATINGS**

<table>
<thead>
<tr>
<th>CLASSIFICATION</th>
<th>RATING</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rail France</td>
<td>NF P 92-501</td>
</tr>
<tr>
<td>France</td>
<td>NF F 16-101</td>
</tr>
<tr>
<td>Poland</td>
<td>PN-K-02512</td>
</tr>
<tr>
<td>Electrical Vertical burn (50W)</td>
<td>UL94V</td>
</tr>
</tbody>
</table>

* Typical values only. Variations within normal tolerances are possible for the various textures.

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PROCESSING

LEXAN™ H6000 sheet is ideally suited to thermoforming. Sandwich type heating systems give the best results. Lexan H6000 sheet has a forming temperature range of 160 - 200°C. When forming, a draft angle of at least 3° should be allowed, and post mold shrinkage of 0.4 - 0.6% taken into account.

PRE-DRYING

It is important to ensure that Lexan H6000 sheets are free of moisture prior to thermoforming. A hot air circulating oven set at 100°C is recommended. Predrying is advised based on 2 hours/mm thickness

ASSEMBLING

Parts made from Lexan H6000 sheet can be assembled with plastics, metals, rubber and other materials using many types of adhesive bonding, welding and mechanical fastening techniques. Since some of these materials can cause environmental stress cracking, please consult SABIC Specialty Film & Sheet representative for advice on specific applications.

PAINTING

LEXAN H6000 sheet is ideally suited for use with a wide variety of modern decoration techniques. A list of approved paint systems and suppliers is available upon request.

CHEMICAL RESISTANCE

LEXAN H6000 sheet has sufficient resistance to most mineral oils, greases, aliphatic hydrocarbons and acids under low or moderate stress levels. In applications where the LEXAN H6000 sheet will come into contact with aggressive chemicals, specific (application related) testing is always advised. Effective painting systems can improve chemical resistance.

PRODUCT AVAILABILITY

**Product code:** LEXAN™ H6000  
**Textures:** Polished/Suede (H6006), Polished/Haircell (H60011N)

See product availability guide for available gauges, sizes, and colors

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