The Super Tough Industrial Polymer Sheet

King Hy-Pact® is the super tough industrial polymer sheet that is environmentally stabilized with excellent physical properties and is a cost effective material. Tests have shown after 2,000 hours of UV exposure, King Hy-Pact outperforms both UV stabilized HDPE and UHMW with superior toughness in wear resistance, flexibility and high-impact strength. Compared to competing materials, King Hy-Pact can save 25% to 30% in material costs. It has a clean white color with a smooth, non-skived finish for better material flow. Applications for King Hy-Pact include, but are not limited to, food processing chutes, star wheels, machine products, snowplow blades, and dock fenders. King Hy-Pact is a product of a proprietary process called K-Stran®, the most advanced manufacturing process for producing sheets with widths up to 72”, tight tolerances, custom colors and sheet sizes, and small minimum requirements. King Hy-Pact is the smart choice for many high abuse applications requiring superior properties, outstanding flatness and a smooth surface while providing significant cost savings.
### Specifications

**Standard Sheet Size**
- **in:** 48” x 120”
- **mm:** 1219mm x 3048mm

**Custom widths (up to 72”)**

**Standard Gauges**
- **in:** 1/8” | 1/4” | 1/2” | 3/4” | 1”
- **mm:** 3.175mm | 6.35mm | 12.7mm | 19.05mm | 25.4mm

**Approximate Weight**
- **lbs:** 25 lbs | 50 lbs | 99 lbs | 149 lbs | 198 lbs
- **kg:** 11.3398kg | 22.6796kg | 44.9056kg | 67.5853kg | 89.8113kg

**Tolerance information:**
Gauges 1/8” through 1” ± 5% | Length and width plus only at room temperature
Custom sheet sizes, gauges and colors available

### Properties

<table>
<thead>
<tr>
<th>Properties</th>
<th>Units</th>
<th>ASTM</th>
<th>Nominal Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>Density</td>
<td>g/cc</td>
<td>D1505</td>
<td>0.95</td>
</tr>
<tr>
<td>Tensile Strength @ Yield</td>
<td>p.s.i.</td>
<td>D638</td>
<td>&gt;4,100</td>
</tr>
<tr>
<td>Elongation @ Yield</td>
<td>%</td>
<td>D638</td>
<td>9.6</td>
</tr>
<tr>
<td>Flexural Modulus</td>
<td>p.s.i.</td>
<td>D790</td>
<td>186,000</td>
</tr>
<tr>
<td>Durometer</td>
<td>Shore D</td>
<td>D2240</td>
<td>65</td>
</tr>
<tr>
<td>Izod Impact</td>
<td>ft.lbs./in²</td>
<td>D256</td>
<td>16.6</td>
</tr>
<tr>
<td>Brittleness Temp.</td>
<td>ºC (ºF)</td>
<td>D746</td>
<td>&lt;-90ºC (&lt;-130ºF)</td>
</tr>
<tr>
<td>Vicat Softening</td>
<td>ºC (ºF)</td>
<td>D1525</td>
<td>130ºC (266ºF)</td>
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<tr>
<td>Heat Deflection Temp. 66 p.s.i.</td>
<td>ºC (ºF)</td>
<td>D648</td>
<td>75ºC (167ºF)</td>
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<tr>
<td>Coefficient of Linear Expansion</td>
<td>in/in/ºf</td>
<td>D696</td>
<td>6.0 x 10⁻⁵</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>UHMW</th>
<th>King StarBoard®</th>
<th>King Hy-Pact®</th>
<th>ASTM</th>
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<tbody>
<tr>
<td></td>
<td>Unexposed</td>
<td>2,000 hours of exposure</td>
<td>Unexposed</td>
</tr>
<tr>
<td>Tensile @ yield 70 F (psi)</td>
<td>4,260</td>
<td>4,250</td>
<td>4,100</td>
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<tr>
<td>Elongation @ yield 70 F (%)</td>
<td>9.2</td>
<td>9.1</td>
<td>9.6</td>
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<tr>
<td>Tensile @ Break 70 F (psi)</td>
<td>690</td>
<td>680</td>
<td>1,930</td>
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<tr>
<td>Elongation @ Break 70 F (%)</td>
<td>160</td>
<td>155</td>
<td>260%</td>
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<tr>
<td>Taber Index</td>
<td>21</td>
<td>45</td>
<td>5</td>
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<tr>
<td>IZOD notch 70 F (ft lbs/sq in)</td>
<td>4.1</td>
<td>3.9</td>
<td>16.6</td>
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<tr>
<td>Coefficient of Friction - Kinetic</td>
<td>0.0888</td>
<td>0.0888</td>
<td>0.107</td>
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<tr>
<td>Coefficient of Friction - Static</td>
<td>0.0832</td>
<td>0.0832</td>
<td>0.102</td>
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</tbody>
</table>

All values are determined on specimens prepared according to ASTM Standards.
King HY-PACT® is made entirely from FDA approved materials.

*Note: Color accuracy can vary considerably on computer monitors and printers. Please consult your distributor for a product sample before making critical color choices.*