Curbell Plastics has been supplying plastic sheet, rod, tube, films, adhesives, sealants, and prototyping materials for over 65 years

Polyethylene is a low cost, chemically resistant plastic material that can be used for a wide variety of applications. The versatility of polyethylene has made it one of the world’s most popular plastics. Polyethylene is available in a number of grades according to its molecular weight.

HDPE (high density polyethylene) is available as sheet or rod stock for applications that require greater strength and stiffness than LDPE. HDPE with an embossed surface is widely used as a cutting board material in restaurants and food processing plants. HDPE is easy to weld using thermoplastic welding equipment and is an excellent choice for fabricated water tanks and chemical tanks that must be assembled by thermoplastic welding.

**POLYSTONE® G**

**KEY CHARACTERISTICS:**
- Easy to weld using thermoplastic welding equipment
- Low moisture absorption
- Excellent surface for food preparation
- Good chemical resistance
- Low cost
- Printable grades available
- FDA compliant grades available
- Available in a wide variety of colors

**APPLICATIONS:**
- Chemical tanks
- Water pipe flanges (pipe grade)
- Cutting boards for food preparation
- Orthotics and prosthetics
- Playground equipment

**POLYETHYLENE TYPICAL PROPERTIES:**

<table>
<thead>
<tr>
<th></th>
<th>UNITS</th>
<th>ASTM TEST</th>
<th>LDPE</th>
<th>HDPE</th>
<th>UHMW-PE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tensile strength</td>
<td>psi</td>
<td>D-638</td>
<td>1,400</td>
<td>4,000</td>
<td>3,100</td>
</tr>
<tr>
<td>Flexural modulus</td>
<td>psi</td>
<td>D-790</td>
<td>30,000</td>
<td>200,000</td>
<td>110,000</td>
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<tr>
<td>Izod impact (notched)</td>
<td>ft-lbs/in of notch</td>
<td>D-256</td>
<td>no break</td>
<td>1.3</td>
<td>18.0*</td>
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<tr>
<td>Heat deflection temperature @66 psi</td>
<td>°F</td>
<td>D-648</td>
<td>122</td>
<td>172</td>
<td>-</td>
</tr>
<tr>
<td>Maximum continuous service temperature in air</td>
<td>°F</td>
<td>-</td>
<td>-</td>
<td>180</td>
<td></td>
</tr>
<tr>
<td>Water absorption (immersion 24 hours)</td>
<td>%</td>
<td>D-570</td>
<td>0.10</td>
<td>0.10</td>
<td>slight</td>
</tr>
<tr>
<td>Coefficient of linear thermal expansion</td>
<td>in/in°F×10⁻⁵</td>
<td>D-696</td>
<td>-</td>
<td>7.0</td>
<td>11.1</td>
</tr>
</tbody>
</table>

**HDPE Standard Sizes:**
- SHEET: 48”x96” (0.062”-4.0” thick), 48”x120” (0.062”-4.0” thick), 60”x120” (0.125”-1.0” thick), 96”x120” (1.5”-4.0” thick), 96”x240” (1.5”-4.0” thick)
- ROD: diameter 0.25”-10.0”

Length, width, thickness, and diameter tolerances vary by size and by manufacturer • Custom sizes and colors available upon request • Many of our materials are available as films with thicknesses of 0.029” or less. Values may vary according to brand name. Please ask your Curbell Plastics representative for more specific information about an individual brand. *Double-15º notch