



# THE GUND COMPANY

MANUFACTURERS & FABRICATORS OF ENGINEERED MATERIAL SOLUTIONS

## HDPE

<b>Item:</b>	HDPE (high density polyethylene)	
<b>Description:</b>	<p>Polyethylene is a type of polymer that is thermoplastic, meaning that it can be melted to a liquid and remolded as it returns to a solid state.</p> <p>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.</p> <p>HDPE (high density polyethylene) is available as sheet or rod stock for applications that require greater strength &amp; 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.</p>	
<b>Applications:</b>	<ul style="list-style-type: none"> <li>• Chemical Tanks</li> <li>• Water pipe flanges</li> <li>• Ballistic plates</li> </ul>	
<b>Key Characteristics:</b>	<ul style="list-style-type: none"> <li>• Low cost</li> <li>• FDA compliant grades available</li> <li>• Low moisture absorption</li> </ul>	
<b>Availability:</b>	<b>Fabricated Parts:</b>	The Gund Company custom fabricates insulation materials to the exact specifications and drawings specified by our customers.

Length, width, thickness, and diameter sizes are available in a wide variety, with the proper product specified for your particular application. Product colors will vary according to material type.

Typical Properties	Test Method	LDPE	HDPE	UHMW-PE
Water Absorption, immersion 24 hours (%)	ASTM D570	0.1	0.1	slight
Tensile Strength (psi)	ASTM D638	1,400	4,000	3,100
Flexural Modulus (psi)	ASTM D790	30,000	200,000	110,000
IZOD impact, notched (ft-lbs/in of notch)	ASTM D256	no break	1.3	18.0*
Heat Deflection Temperature @ 264 psi (°F)	ASTM D648	122	172	--
Maximum continuous service temperature in air (°F)	--	--	--	180
Coefficient of Linear Thermal Expansion (x 10 <sup>-5</sup> in./in./°F)	ASTM D696	--	7.0	11.1

\*Double 15° notched

AS9100C Certified | ISO/AS9100 Certified QMS | RoHS Compliant | ITAR Compliant

*All of the information, suggestions and recommendations pertaining to the properties and uses of the products herein are based upon tests and data believed to be accurate; however, the final determination regarding suitability of any material described herein for the contemplated, the manner of such use, and whether the use infringes any patents is the sole responsibility of the user. There is no warranty, expressed or implied, including, without limitation warranty of merchantability or fitness for a particular purpose. Under no circumstances shall we be liable for incidental or consequential loss or damage.*