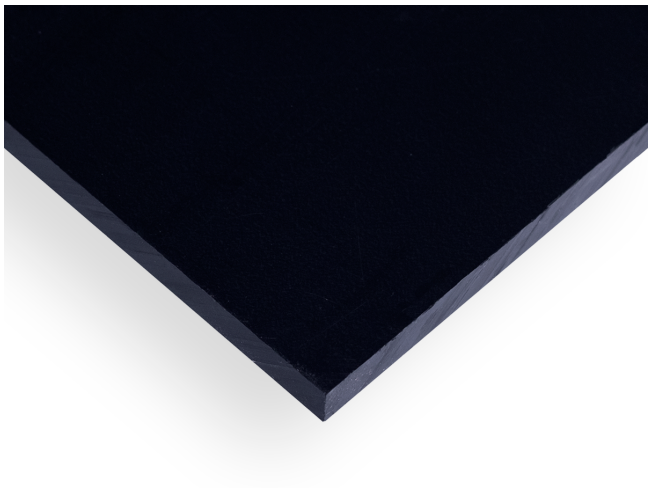
Pipe Grade HDPE

Description and Overview

Pipe grade HDPE sheet is used in outdoor and piping applications due to its excellent chemical resistance and UV properties. It is especially useful for large flanges and manholes. Like standard HDPE, it will not splinter, rot, or absorb harmful bacteria. UV-stabilized pipe grade HDPE has an added stabilizer material that protects it from the long-term degenerative effects of UV light, including discoloration. Its higher molecular weight compared to standard HDPE improves impact resistance and tolerance to punishing blows. These characteristics increase pipe grade HDPE's performance in piping applications over standard HDPE's. This material has excellent weldability and is black in color.



Available sheet sizes: 48” x 96”, 48” x 120” (.125” to 4” thick)

Applications and Uses

Pipe grade HDPE's chemical resistance makes it suited for piping applications, covers, and liquid containers. As a UV-stabilized material, it may be used outdoors for extended periods of time without degrading and will not rust or corrode compared to similar piping materials.

- Manhole bases and covers
- Flanges and fittings
- Stub ends
- Trenches
- End caps
- Water tanks
- Sumps
- Lifting lugs

Properties and Specifications

Thermal Properties	Test Method	Units	Guideline Value
Coefficient of Linear Thermal Expansion	ASTM D696	in/in/°F x10-5	6
Vicat Softening Point	ISO306	°F	259
Maximum Service Temperature, Air	ASTM D696	°F	180
Heat Deflection Temperature 264psi	ASTM D648	°F	175
Brittleness Temperature	ASTM D746	°F	-180

Properties are typical.
Chem is an abbreviation for chemically affixed with glues, chemicals, or adhesive.
Mech is an abbreviation for mechanically affixed bonding.
Field testing is recommended for any application.

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Typical Properties

Property	Test Method	Units	Values
PHYSICAL and MECHANICAL			
Density	ASTM D792	g/cm^3	0.96
Water Absorption	ASTM D570	%	<0.10
Carbon Black Content	ISO6964	%	2
Hardness	ASTM D2240	Shore D	65
Tensile Strength at yield 73°F	ASTM D638	psi	3,625
Tensile Modulus	ASTM D638	psi	150,000
Elongation at Break	ASTM D638	%	>600
Flexural Strength	ASTM D790	psi	120,000
Flexural Modulus	ASTM D790	psi	150,000
Izod Impact, Notched	ASTM D256	ft-lb/in	9.0

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