



QUADRANT

HDPE

Cost Effective Materials For General Purpose Applications in Wet and Dry Environments

Product Profile:

- Meets FDA/USDA food handling guidelines (natural color)
- Chemical- and corrosion- resistant
- Light-weight
- No moisture absorption
- High tensile strength
- Non-toxic
- Non-staining
- Thermoforming performance



Quadrant's high density polyethylene (HDPE) is used in a variety of applications and industries where excellent impact resistance, high tensile strength, low moisture absorption and chemical- and corrosion-resistance properties are required. It is available in both extruded (up to 1" thick) and pressed sheet (from 1 " through 4" thick).

Quadrant's HDPE is stress relieved and available in:

- black, 48" x 96" sheets with gauge sizes ranging from 1/8" to 1"
- natural: 48" x 96" sheets with gauge sizes ranging from 1/16" to 4"
- natural: 48" x 120" sheets with gauge sizes ranging from 1/8" to 2"
- natural: 60" x 120" sheets with gauge sizes ranging from 1/8" to 1"

Industries	Applications
Chemical storage Liquids storage Medical Recreational vehicles Thermoforming	Light duty chain guides Orthotic and prosthetic devices Secondary containment Tanks Thermoformed material handling devices Water storage

Dallas, Texas (Corporate Offices)
Houston, Texas
Brandon, Mississippi

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DATA SHEET			
HDPE – Natural High Density Polyethylene			
Property	Units	Test Method	Typical Average Values
Mechanical			
Specific Gravity, 73° F	-	ASTM D792	.96
Yield Point, 73° F	psi	ASTM D638	4600
Tensile Elongation (at yield), 73° F	%	ASTM D638	12
Tensile Break, 73° F	psi	ASTM D638	4600
Tensile Elongation (at break), 73° F	%	ASTM D638	400
Tensile Modulus of Elasticity, 73° F	psi	ASTM D638	200000
Flexural Modulus of Elasticity, 73° F	psi	ASTM D790	174000
Izod Impact (notched), 73° F	ft.lb./in.	ASTM D256 Type "A"	1.3
Hardness, Durometer, Shore "D" Scale, 73° F	-	ASTM D2240	70
Thermal			
Heat Deflection Temperature 264 psi	°F	ASTM D648	
Melting Point (crystalline) peak	°F	ASTM D3418	260
Continuous Service Temperature in Air (Max.)(1)	°F	-	180
Electrical			
Volume Resistivity	Ohm-cm	ASTM D257	>10 ¹⁵
Surface Resistivity	Ohm	ASTM D257	>10 ¹⁵
Flammability @ 3.1 mm (1/8 in.) (3)	-	UL94	HB
Miscellaneous			
Water Absorption	% by wt.	ASTM D570(2)	< .01

- (1) Data represent Quadrant's estimated maximum long-term service temperature based on practical field experience.
- (2) Specimens: 1/8" thick x 2" diameter or square.
- (3) **Estimated rating based on available data.** The UL 94 Test is a laboratory test and does not relate to actual fire hazard. Contact Quadrant for specific UL "Yellow Card" recognition number.

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