

High Density Extruded Polyethylene Sheet

GEM Ice™ HDPE is created with an extrusion process using heat and pressure which transforms co-polymer high density polyethylene pellets into sheets of various thicknesses.

Current thickness production capability: .200” to 1.5”

Current sheet size production capability: max. 75” wide x 240” long - min. 24” x 24”
(max./min. varies with thickness)

Tolerance Information:

Gauges: +/- 5%

Length: +.25”/-0” (at room temperature)

Width: +.25”/-0” (at room temperature)

Layflat: 0 - 1/8” (at room temperature) in any four foot direction

| Typical Properties | Units | Nominal Values | ASTM |
|---|------------------------------|----------------|-------|
| Density | g/cc | 0.962 | D1505 |
| Tensile Strength @ Yield | psi | 3,600 | D638 |
| Elongation @ Break | % | 650 | D638 |
| Flexural Modulus | psi | 165,000 | D790 |
| Flexural Stress @ 5% Strain | psi | 3,810 | D790 |
| Water Absorption | max 0.01% | <0.01 | D5700 |
| Durometer | Shore D | 64.7 | D2240 |
| Tensile Impact | ft.lbs/in ² | 100 | D1822 |
| Brittleness Temp. | °C/°F | <-90°C/<-130°F | D746 |
| Vicat Softening | °C/°F | 130°C/266°F | D1525 |
| Izod Impact Resistance | ft/lb/in ² | 1.4 | D256 |
| Heat Deflection Temp. @ 66 psi | °C/°F | 87°C/188°F | D648 |
| Coefficient of Linear Thermal Expansion | 10 ⁻⁶ in/in C deg | 155 | D696 |

All values are determined on sheet prepared according to ASTM standards.

| Glide Properties | Coefficient of Friction per ASTM 1894 Test | |
|------------------|--|---------|
| | Static | Kinetic |
| Ice White | .146 | .129 |
| Ice Blue | .120 | .120 |

Test conditions: 23°C (+/- 2°C) / 50% (+/- 10%) RH

Plane: Stainless Steel #8 Finish

Apparatus Used: Instron Series 5565