

# HDPE PipeGrade



## PE100 Special Black Polyethylene Sheet

PipeGrade is a PE100 special black polyethylene sheet. It is the product of a proprietary process called K-Stran, the most advanced manufacturing process for superior flatness and consistency up to 1 1/2" thick. PipeGrade has a smooth black finish on both sides of sheet. It displays improved performance characteristics in a variety of industrial applications. PipeGrade is chemical resistant, UV stabilized, and ideal for use in demanding outdoor applications from flanges and gussets to end caps. The polymer sheet will not rust, corrode or rot like traditional pipe materials and is easy to fabricate and weld using thermoplastic welding equipment.

## Applications

End caps, flanges, guides and wear plates, gussets, machine parts, manhole lids, tanks and containers

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

Nominal values should not be interpreted as specifications.

Listed by the Plastic Pipe Institute as a PE4710 material with Hydrostatic Design Basis of 1600 psi @ 73°F and 1000 psi @ 140°F.

PipeGrade meets ASTM D 3350 cell class 445574C.

PipeGrade is NSF approved for standard 14 and complies with ANSI/NSF standard 61.

These suggestions and data are based on information we believe to be reliable. They are offered in good faith, but without guarantee, as conditions and methods of use are beyond our control. We recommend that the prospective user determines the suitability of our materials and suggestions before adopting them on a commercial scale.

## Typical Properties

Property	Test Method	Units	Values
<b>PHYSICAL</b>			
Density	ASTM D 792	g/cc	0.961
<b>MECHANICAL</b>			
Tensile strength @ break	ASTM D 638	psi	5,510
Tensile strength @ yield	ASTM D 638	psi	3,630
Elongation @ break	ASTM D 638	%	600
Flexural modulus 2% secant	ASTM D 790	psi	150,000
Environmental stress crack resistance	ASTM D 1693C	hrs	>5,000
Notched Izod impact	ASTM D 256	ft·lbs/in <sup>2</sup>	9.2
Notch tensile (PENT)	ASTM F 1473	hrs	>10,000
<b>THERMAL</b>			
Vicat softening temperature	ASTM D 1525	°C (°F)	126°C (259°F)
Brittleness temperature	ASTM D 746	°C (°F)	-118° (-180°F)