

## DATA SHEET

### HDPE

High Density (250,000-500,000) Polyethylene

PROPERTY	UNITS	VALUE
<b>MECHANICAL</b>		
Specific Gravity	-	0.955
Tensile Strength	psi	4,600
Tensile Modulus	psi	120,000
Elongation (at break)	%	900
Flexural Strength	psi	2,100
Flexural Modulus	psi	150,000
Compressive Strength	psi	--
Hardness, Shore D	-	65
Coefficient of Friction (Dry vs. Steel)	-	.18
Limiting PV (with 4:1 safety factor)	psi x fpm	1,000
<b>THERMAL</b>		
Coefficient of Linear Thermal Expansion	in/in/F	$7.10 \times 10^{-5}$
Heat Deflection Temperature (264 psi)	F	110
Glass Transition Temperature	F	115
Continuous Service Temperature	F	180
Thermal Conductivity	BTU/in/hr.ft.F	--
<b>ELECTRICAL</b>		
Dielectric Strength	volts/mil	475
Volume Resistivity	ohm-cm	$10^{15}$
<b>OTHER</b>		
Water Absorption, Immersion, 24 hrs.	% by wt.	<.01
Water Absorption, Immersion, Saturation	% by wt.	<.01

#### **ENGINEERING NOTES:**

- \* FDA, USDA compliant
- \* Chemically inert
- \* Formable