



PolyPipe[®] POTABLE WATER (PW) PIPE

les plastiques
desmarais

Extra High Molecular Weight High Density Polyethylene for potable water service, which is tested and certified by the National Sanitation Foundation (NSF), and manufactured in accordance with AWWA.

➤ *Other dimensional standards or custom requirements available.*

TYPICAL PHYSICAL PROPERTIES			
PROPERTY	ASTM TEST METHOD	*NOMINAL VALUES	
		SI UNITS	ENGLISH UNITS
Density, Natural	D1505	0.946 gm/cc	--
Density, Black	D1505	0.955 gm/cc	--
Melt Index (190°C/2.16 kg)	D1238	0.07 gm/10 min.	--
Flow Rate (190°C/21.6 kg)	D1238	8.5 gm/10 min.	--
Tensile Strength @Ultimate	D638	34.5 MPa	5,000 psi
Tensile Strength @ Yield	D638	24.1 MPa	3,500 psi
Ultimate Elongation	D638	>800%	>800%
Flexural Modulus	D790	938 MPa	136,000 psi
2% Secant			
Environmental Stress Crack Resistance (ESCR)			
F ₀ , Condition C	D1693	>10,000 hrs.	>10,000 hrs.
PENT	F1473	>100 hrs.	>100 hrs.
Brittleness Temperature	D746	<-117°C	<-180°F
Hardness, Shore D	D2240	64	64
Vicat Softening Temperature	D1525	124°C	255°F
Izod Impact Strength (Notched)	D256	0.37 KJ/m	7 ft – lb _f /in
Volume Resistivity	D991	>10 ¹⁵ ohm-cm	--
Thermal Expansion Coefficient		2x10 ⁻⁴ cm/cm/°C	1.0x10 ⁻⁴ in/in/°F
CELL CLASSIFICATION:	D3350	345464C	Grade PE36
MATERIAL CLASSIFICATION:	D1248	Type III Category 5	Class C
PPI HYDROSTATIC DESIGN BASIS (HDB)	D2837	11.0 MPa @ 23°C	1,600 psi @ 73.4°F
<i>(As listed in PPI TR-4)</i>		5.5 MPa @ 60°C	800 psi @ 140°F
PPI HYDROSTATIC DESIGN STRESS (HDS)		5.5 MPa @ 23°C	800 psi @ 73.4°F
<i>(As established by the Hydrostatic Stress Board (HSB) of the Plastics Pipe Institute (PPI))</i>			

*Nominal values are intended to be guides only, and not as specification limit.