PolyPipe®

Product Catalogue for
Oilfield & Gas Gathering, Municipal & Industrial, Mining Applications

Always better,
Always faster,
Always smarter.

Why Use PolyPipe®?

PolyPipe® offers a complete range of extra high molecular weight (EHMW), high-density polyethylene (HDPE) pipe. We are known for state-of-the-art facilities, and a team of people dedicated to the industry and to the customers we serve.

PolyPipe® is one of the largest manufacturers of pressure-rated polyethylene pipe. PolyPipe® uses only select resins that meet our demanding standard of excellence and quality. As a result, you can count on the performance of any PolyPipe® system as specified.

PolyPipe® is strategically positioned to be your single source provider of polyethylene pipeline assistance. With extrusion facilities and a national network of key distributors covering all regions of the United States, Mexico and Canada, PolyPipe® can be your pipeline to the world. Our products are in service all over North and South America, as well as Europe, the Middle East and Southeast Asia.

Understanding your objective is our first priority.
Our ability to match specific products and systems to a wide range of client needs has been recognized as outstanding in the industry.

We produce millions of feet of polyethylene pipe, year in... year out, for a variety of customers all over the globe.

- PolyPipe® has six plant locations throughout North America for the best possible geographic location to meet your needs.
- PolyPipe® is nimble enough to satisfy your most demanding requirements. Our customer service attitude is recognized as “best in class”.
- PolyPipe® is an active member of the Plastics Pipe Institute (PPI). We also sit or chair many associations and standard committee groups.
- Feel free to contact our Technical Services Department, staffed by licensed Professional Engineers who are always ready to address your questions. (940) 668-4419

Major Industries Served

- Natural Gas Distribution
- Pipeline Rehabilitation
- Gas Gathering
- Water & Sewer
- Oilfield Applications
- Nuclear
- Landfill
- Power Plants
- Industrial & Mining
- Chemical
- Hazardous & Solid Waste
- Underground Fire Protection (FM)

Quality Assurance in Product Design and Materials

We define quality as an inherent value that results in superior performance. PolyPipe® is the engineering leader in the field, offering knowledgeable, enthusiastic technical support, exacting laboratory procedures and testing methods, and a constant quest for manufacturing excellence. Quality leadership also demands innovation and improving services that are always customer-based.

PolyPipe® is continually striving to meet the demands of the market today. Our qualification as an ISO 9001 company has given us great confidence in our quality system to ensure quality products are manufactured on a consistent basis. It is the policy of PolyPipe® to achieve total quality system performance by understanding and meeting its customer requirements without error, on time, every time.

At PolyPipe®, quality throughout the manufacturing process is an inherent value that assures the highest performance. Our manufacturing facilities start with only superior grade, polyethylene resins that have been specifically formulated for long-term integrity and performance. Computer controlled extrusion techniques are utilized in the manufacture of our pipe to ensure quality.

Contact PolyPipe® and ask us about the specific advantages we may offer to your unique requirements in your particular industry. We can assure you PolyPipe® offers the best in pipe and services.

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Typical Physical Property Sheets:

PolyPipe® Corporate Headquarters
Gainesville, TX 800-433-5632

Lee Mizell, Executive VP Sales & Marketing 940-668-4482
Mark Tufts, Director of Sales 940-668-4423
Dan Gaines, Director of Pricing & Customer Service 940-668-4427
Allison Crabtree, Senior Technical Engineer 940-668-4419

PolyPipe® GB30 PE3408/PE3608 Pipe

Extra High Molecular Weight (EHMW) High Density Polyethylene for use in oilfield and gas gathering applications.

Typical Printline: **4" IPS SDR 7 – POLYPIPE® GB30 GAS – PE3408/PE3608 – CDE – ASTM D2513 – API 15LE(1) – MANUFACTURING CODE**

(1) API 15LE is available upon request.

TYPICAL PHYSICAL PROPERTIES

PROPERTY	ASTM TEST METHOD	*NOMINAL VALUES SI UNITS	*NOMINAL VALUES 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 @ Yield	D638	22.1 MPa	3,200 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	Class C
		Category 5	
PPI HYDROSTATIC DESIGN BASIS (HDB)	D2837	11.0 MPa @ 23°C	1,600 psi @ 73.4°F
(As listed in PPI TR-4)		5.5 MPa @ 60°C	800 psi @ 140°F
PPI HYDROSTATIC DESIGN STRESS (HDS)		5.5 MPa @ 23°C	800 psi @ 73.4°F
(As established by the Hydrostatic Stress Board (HSB) of the Plastics Pipe Institute (PPI))			

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

*Some of the data listed above was determined from compression molded test specimens; therefore, may deviate from pipe specimens.

PolyPipe® GB30 PE3408/PE3608 Pipe

Pipe Data and Pressure Ratings – IPS

Pressure Rating		Class 265 DR7		Class 200 DR9		Class 160 DR11		Class 130 DR13.5		Class 100 DR17		Class 80 DR21		Class 65 DR26		Class 50 DR32.5	
Nominal Pipe Size	OD Size, inches	Min. Wall, inches	Weight, lbs/ft	Min. Wall, inches	Weight, lbs/ft	Min. Wall, inches	Weight, lbs/ft	Min. Wall, inches	Weight, lbs/ft	Min. Wall, inches	Weight, lbs/ft	Min. Wall, inches	Weight, lbs/ft	Min. Wall, inches	Weight, lbs/ft	Min. Wall, inches	Weight, lbs/ft
½”	0.840	0.120	0.12	0.093	0.10	0.076	0.08	---	---	---	---	---	---	---	---	---	---
¾”	1.050	0.150	0.18	0.117	0.15	0.095	0.13	---	---	---	---	---	---	---	---	---	---
1”	1.315	0.188	0.29	0.146	0.23	0.120	0.20	---	---	---	---	---	---	---	---	---	---
1 ¼”	1.660	0.237	0.46	0.184	0.37	0.151	0.31	0.123	0.26	---	---	---	---	---	---	---	---
1 ½”	1.900	0.271	0.60	0.211	0.49	0.173	0.41	0.141	0.34	---	---	---	---	---	---	---	---
2”	2.375	0.339	0.94	0.264	0.76	0.216	0.64	0.176	0.53	0.140	0.43	---	---	---	---	---	---
3”	3.500	0.500	2.05	0.389	1.66	0.318	1.39	0.259	1.15	0.206	0.93	0.167	0.76	0.135	0.62	---	---
4”	4.500	0.643	3.38	0.500	2.74	0.409	2.29	0.333	1.91	0.265	1.54	0.214	1.26	0.173	1.03	0.138	0.83
5”	5.375	0.768	4.83	0.597	3.91	0.489	3.27	0.398	2.72	0.316	2.20	0.256	1.80	0.207	1.47	0.165	1.19
5”	5.563	0.795	5.17	0.618	4.18	0.506	3.51	0.412	2.91	0.327	2.35	0.265	1.93	0.214	1.57	0.171	1.27
6”	6.625	0.946	7.34	0.736	5.93	0.602	4.97	0.491	4.13	0.390	3.34	0.315	2.74	0.255	2.23	0.204	1.80
7”	7.125	1.018	8.49	0.792	6.86	0.648	5.75	0.528	4.78	0.419	3.86	0.339	3.17	0.274	2.58	0.219	2.08
8”	8.625	1.232	12.43	0.958	10.05	0.784	8.43	0.639	7.00	0.507	5.66	0.411	4.64	0.332	3.78	0.265	3.05
10”	10.750	1.536	19.31	1.194	15.62	0.977	13.09	0.796	10.88	0.632	8.79	0.512	7.20	0.413	5.88	0.331	4.74
12”	12.750	1.821	27.17	1.417	21.97	1.159	18.41	0.944	15.30	0.750	12.36	0.607	10.13	0.490	8.27	0.392	6.67
14”	14.00	2.000	32.76	1.556	26.49	1.273	22.20	1.037	18.45	0.824	14.91	0.667	12.22	0.538	9.97	0.431	8.04
16”	16.00	2.286	42.79	1.778	34.60	1.455	28.99	1.185	24.09	0.941	19.47	0.762	15.96	0.615	13.02	0.492	10.51
18”	18.00	2.571	54.15	2.000	43.79	1.636	36.70	1.333	30.49	1.059	24.64	0.857	20.20	0.692	16.48	0.554	13.30
20”	20.00	2.857	66.85	2.222	54.06	1.818	45.30	1.481	37.64	1.176	30.42	0.952	24.94	0.769	20.35	0.615	16.42
22”	22.00	---	---	2.444	65.41	2.000	54.82	1.630	45.55	1.294	36.81	1.048	30.17	0.846	24.62	0.677	19.86
24”	24.00	---	---	2.667	77.85	2.182	65.24	1.778	54.21	1.412	43.80	1.143	35.99	0.923	29.30	0.738	23.64

- PolyPipe® GB30 PE3608 Pipe is manufactured in accordance with ASTM D2513.
- Coiled pipe is available through 6” OD and straight lengths available in 40’ and 50’ lengths. For custom lengths, contact a Customer Service Representative.
- Pressures are based on water at 23°C (73.4°F) and are determined by use of the Hydrostatic Design Stress (HDS) as established by the Hydrostatic Stress Board (HSB) of the Plastics Pipe Institute (PPI). Service pressures for crude oil service shall be calculated in accordance with API 15LE.
- The above weights are calculated in accordance with Plastics Pipe Institute (PPI) TR-7, using a value of 0.955 for density.
- Available with color-coded striping.
- Some sizes listed are special order. Call for availability on sizes.

PolyPipe® GB50 PE3408/PE4710/PE100 Pipe

Extra High Molecular Weight (EHMW) High Density Polyethylene for use in oilfield and gas gathering applications.

Typical Printline: **4" IPS SDR 7 – POLYPIPE® GB50 GAS – PE3408/PE4710 – CDE – ASTM D2513 – API 15LE(1) – MANUFACTURING CODE**

(1) API 15LE is available upon request.

TYPICAL PHYSICAL PROPERTIES

PROPERTY	ASTM TEST METHOD	*NOMINAL VALUES SI UNITS	ENGLISH UNITS
Density, Natural	D1505	0.949 gm/cc	--
Density, Black	D1505	0.960 gm/cc	--
Melt Index (190°C/2.16 kg)	D1238	0.08 gm/10 min.	--
Flow Rate (190°C/21.6 kg)	D1238	7.5 gm/10 min.	--
Tensile Strength @ Yield	D638	24.8 MPa	3,600 psi
Ultimate Elongation	D638	>800%	>800%
Flexural Modulus	D790	1,034 MPa	150,000 psi
2% Secant			
Environmental Stress Crack Resistance (ESCR)			
F_0, Condition C	D1693	--	--
PENT	F1473	>500 hrs.	>500 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	0.42 KJ/m	8 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	445474C 445574C 445576C	PE47 PE47 PE100
PPI HYDROSTATIC DESIGN BASIS (HDB)	D2837	11.0 MPa @ 23°C	1,600 psi @ 73.4°F
(As listed in PPI TR-4)		6.9 MPa @ 140°C	1,000 psi @ 140°F
PPI HYDROSTATIC DESIGN STRESS (HDS)		6.9 MPa @ 23°C	1,000 psi @ 73.4°F

(As established by the Hydrostatic Stress Board (HSB) of the Plastics Pipe Institute (PPI))

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

*Some of the data listed above was determined from compression molded test specimens; therefore, may deviate from pipe specimens.

PolyPipe® GB50 PE3408/PE4710/PE100 Pipe

Pipe Data and Pressure Ratings – IPS

Pressure Rating		DR7 335 psi		DR9 255 psi		DR11 200 psi		DR13.5 160 psi		DR17 120 psi		DR21 100 psi		DR26 80 psi		DR32.5 65 psi	
Nominal Pipe Size	OD Size, inches	Min. Wall, inches	Weight, lbs/ft	Min. Wall, inches	Weight, lbs/ft	Min. Wall, inches	Weight, lbs/ft	Min. Wall, inches	Weight, lbs/ft	Min. Wall, inches	Weight, lbs/ft	Min. Wall, inches	Weight, lbs/ft	Min. Wall, inches	Weight, lbs/ft	Min. Wall, inches	Weight, lbs/ft
½”	0.840	0.120	0.119	0.093	0.096	0.076	0.080	---	---	---	---	---	---	---	---	---	---
¾”	1.050	0.150	0.185	0.117	0.150	0.095	0.126	---	---	---	---	---	---	---	---	---	---
1”	1.315	0.188	0.291	0.146	0.235	0.120	0.197	---	---	---	---	---	---	---	---	---	---
1 ¼”	1.660	0.237	0.463	0.184	0.374	0.151	0.314	0.123	0.261	---	---	---	---	---	---	---	---
1 ½”	1.900	0.271	0.607	0.211	0.490	0.173	0.411	0.141	0.342	---	---	---	---	---	---	---	---
2”	2.375	0.339	0.948	0.264	0.766	0.216	0.642	0.176	0.534	0.140	0.430	---	---	---	---	---	---
3”	3.500	0.500	2.058	0.389	1.664	0.318	1.395	0.259	1.159	0.206	0.936	0.167	0.768	0.135	0.626	---	---
4”	4.500	0.643	3.402	0.500	2.751	0.409	2.306	0.333	1.916	0.265	1.548	0.214	1.269	0.173	1.035	0.138	0.835
5”	5.375	0.768	4.854	0.597	3.925	0.489	3.289	0.398	2.733	0.316	2.208	0.256	1.810	0.207	1.477	0.165	1.192
5”	5.563	0.795	5.199	0.618	4.204	0.506	3.523	0.412	2.928	0.327	2.366	0.265	1.939	0.214	1.582	0.171	1.277
6”	6.625	0.946	7.374	0.736	5.963	0.602	4.997	0.491	4.152	0.390	3.355	0.315	2.750	0.255	2.244	0.204	1.811
7”	7.125	1.018	8.529	0.792	6.897	0.648	5.780	0.528	4.802	0.419	3.881	0.339	3.181	0.274	2.596	0.219	2.094
8”	8.625	1.232	12.498	0.958	10.106	0.784	8.470	0.639	7.037	0.507	5.687	0.411	4.662	0.332	3.804	0.265	3.069
10”	10.750	1.536	19.416	1.194	15.700	0.977	13.157	0.796	10.932	0.632	8.834	0.512	7.242	0.413	5.909	0.331	4.767
12”	12.750	1.821	27.312	1.417	22.085	1.159	18.508	0.944	15.379	0.750	12.427	0.607	10.187	0.490	8.312	0.392	6.706
14”	14.00	2.000	32.930	1.556	26.628	1.273	22.315	1.037	18.542	0.824	14.983	0.667	12.282	0.538	10.022	0.431	8.086
16”	16.00	2.286	43.010	1.778	34.779	1.455	29.146	1.185	24.218	0.941	19.569	0.762	16.042	0.615	13.090	0.492	10.561
18”	18.00	2.571	54.435	2.000	44.017	1.636	36.888	1.333	30.651	1.059	24.767	0.857	20.304	0.692	16.567	0.554	13.366
20”	20.00	2.857	67.203	2.222	54.342	1.818	45.541	1.481	37.840	1.176	30.577	0.952	25.066	0.769	20.453	0.615	16.501
22”	22.00	---	---	2.444	65.754	2.000	55.105	1.630	45.787	1.294	36.998	1.048	30.330	0.846	24.748	0.677	19.967
24”	24.00	---	---	2.667	78.253	2.182	65.579	1.778	54.21	1.412	43.80	1.143	35.99	0.923	29.452	0.738	23.64

- PolyPipe® GB50 PE4710 Pipe is manufactured in accordance with ASTM D2513.
- Coiled pipe is available through 6” OD and straight lengths available in 40’ and 50’ lengths. For custom lengths, contact a Customer Service Representative.
- Pressures are based on water at 23°C (73.4°F) and are determined by use of the Hydrostatic Design Stress (HDS) as established by the Hydrostatic Stress Board (HSB) of the Plastics Pipe Institute (PPI). Service pressures for crude oil service shall be calculated in accordance with API 15LE.
- The above weights are calculated in accordance with Plastics Pipe Institute (PPI) TR-7, using a value of 0.960 for density.
- Available with color-coded striping.
- Some sizes listed are special order. Call for availability on sizes.

PolyPipe® EHMW PE3408/PE3608 Pipe

Extra High Molecular Weight (EHMW) High Density Polyethylene for use in industrial applications such as underground fire mains, mining, landfill, water reclamation or sewer.

Typical Printline: **12" IPS SDR 9 – POLYPIPE® EHMW – PE3408/PE3608 –ASTM F714 C3 -- MANUFACTURING CODE**

TYPICAL PHYSICAL PROPERTIES

PROPERTY	ASTM TEST METHOD	*NOMINAL VALUES SI UNITS	*NOMINAL VALUES 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 @ Yield	D638	22.1 MPa	3,200 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	Class C
		Category 5	
PPI HYDROSTATIC DESIGN BASIS (HDB)	D2837	11.0 MPa @ 23°C	1,600 psi @ 73.4°F
(As listed in PPI TR-4)		5.5 MPa @ 60°C	800 psi @ 140°F
PPI HYDROSTATIC DESIGN STRESS (HDS)		5.5 MPa @ 23°C	800 psi @ 73.4°F
(As established by the Hydrostatic Stress Board (HSB) of the Plastics Pipe Institute (PPI))			

*Nominal values are intended to be guides only, and not as specification limit.
*Some of the data listed above was determined from compression molded test specimens; therefore, may deviate from pipe specimens.

PolyPipe® Potable Water (PW) PE3408/PE3608 Pipe

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.

Typical Printline: **12" IPS SDR 9 – POLYPIPE® PW – PE3408/PE3608 – AWWA C906-07 – PC200 – ASTM F714 C3 -- MANUFACTURING CODE – NSF-61**

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 @ Yield	D638	22.1 MPa	3,200 psi
Ultimate Elongation	D638	>800%	>800%
Flexural Modulus 2% Secant	D790	938 MPa	136,000 psi
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) *(As listed in PPI TR-4)*	D2837	11.0 MPa @ 23°C 5.5 MPa @ 60°C	1,600 psi @ 73.4°F 800 psi @ 140°F
PPI HYDROSTATIC DESIGN STRESS (HDS)		5.5 MPa @ 23°C	800 psi @ 73.4°F

(As established by the Hydrostatic Stress Board (HSB) of the Plastics Pipe Institute (PPI))

*Nominal values are intended to be guides only, and not as specification limit.
*Some of the data listed above was determined from compression molded test specimens; therefore, may deviate from pipe specimens.

PolyPipe® LightView™ PE3408/PE3608 HDPE Pipe

Extra High Molecular Weight High Density Polyethylene manufactured in natural or gray. Formulated to allow inspection of the pipe interior via conventional video monitoring techniques.

- *Provides optimal background color for TV inspection.*
- *Provides alternate color choice to HDPE black pipe.*
- *Suitable for pressure applications.*
- *Flexibility of HDPE is perfectly suited for slipline applications.*
- *Used for 25+ years for direct burial applications.*
- *Heat fusion joining provides leakproof, water-tight non-wedging joints.*
- *Translucent feature allows TV location of lateral taps.*
- *Corrosion resistance provides long-term, trouble-free service.*
- *40' - 50' joints available to reduce installation cost.*
- *UV stabilized for outdoor storage for a period of two (2) years from the date of manufacture.*
- *Contact a Customer Service Representative for available sizes and Dimension Ratios (DR).*
- *Manufactured in accordance with ASTM D3035 or F714.*

TYPICAL PHYSICAL PROPERTIES

PROPERTY	ASTM TEST METHOD	*NOMINAL VALUES SI UNITS	ENGLISH UNITS
Density, Natural	D1505	0.947 gm/cc	--
Density, Gray	D1505	0.949 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 @ Yield	D638	22.1 MPa	3,200 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
Modulus of Elasticity (long term)		--	30,000 psi
Modulus of Elasticity (short term)		--	125,000 psi
CELL CLASSIFICATION:	D3350	345464D (Natural) 345464E (Gray)	Grade PE36
MATERIAL CLASSIFICATION:	ASTM	PE3608	
HYDROSTATIC DESIGN BASIS (HDB)	D2837	11.0 MPa @ 23°C	1,600 psi @ 73.4°F

*Nominal values are intended to be guides only, and not as specification limit.
*Some of the data listed above was determined from compression molded test specimens; therefore, may deviate from pipe specimens.

PolyPipe® EHMW Plus™ PE3408/PE4710/PE100 Pipe

Extra High Molecular Weight Plus™ (EHMW Plus) High Density Polyethylene is designed for use in applications such as mining, landfill, dredge, gas gathering, water reclamation or sewer. EHMW Plus™ is an ideal alternative to EHMW PE3608 applications requiring additional performance from abrasion resistance, higher-pressure requirements or elevated temperatures as the single design need or in combination of design concerns. PolyPipe EHMW Plus is manufactured in accordance with ASTM F714 using NSF approved materials which are suitable for potable water applications.

Typical Printline: **12" IPS SDR 9 – POLYPIPE® EHMW PLUS – PE3408/PE4710 –ASTM F714 C3 -- MANUFACTURING CODE**

TYPICAL PHYSICAL PROPERTIES

PROPERTY	ASTM TEST METHOD	*NOMINAL VALUES SI UNITS	ENGLISH UNITS
Density, Natural	D1505	0.949 gm/cc	--
Density, Black	D1505	0.960 gm/cc	--
Melt Index (190°C/2.16 kg)	D1238	0.08 gm/10 min.	--
Flow Rate (190°C/21.6 kg)	D1238	7.5 gm/10 min.	--
Tensile Strength @ Yield	D638	24.8 MPa	3,600 psi
Ultimate Elongation	D638	>800%	>800%
Flexural Modulus	D790	1,034 MPa	150,000 psi
2% Secant			
Environmental Stress Crack Resistance (ESCR)			
F_0, Condition C	D1693	--	--
PENT	F1473	>500 hrs.	>500 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	0.42 KJ/m	8 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	445474C 445574C 445576C	PE47 PE47 PE100
PPI HYDROSTATIC DESIGN BASIS (HDB)	D2837	11.0 MPa @ 23°C	1,600 psi @ 73.4°F
(As listed in PPI TR-4)		6.9 MPa @ 140°C	1,000 psi @ 140°F
PPI HYDROSTATIC DESIGN STRESS (HDS)		6.9 MPa @ 23°C	1,000 psi @ 73.4°F
(As established by the Hydrostatic Stress Board (HSB) of the Plastics Pipe Institute (PPI))			

*Nominal values are intended to be guides only, and not as specification limit.
*Some of the data listed above was determined from compression molded test specimens; therefore, may deviate from pipe specimens.

PolyPipe® PE3408/PE3608 Pipe

Pipe Data and Pressure Ratings – IPS

Pressure Rating		Class 265 DR7		Class 200 DR9		Class 160 DR11		Class 130 DR13.5		Class 100 DR17		Class 80 DR21		Class 65 DR26		Class 50 DR32.5	
Nominal Pipe Size	OD Size, inches	Min. Wall, inches	Weight, lbs/ft	Min. Wall, inches	Weight, lbs/ft	Min. Wall, inches	Weight, lbs/ft	Min. Wall, inches	Weight, lbs/ft	Min. Wall, inches	Weight, lbs/ft	Min. Wall, inches	Weight, lbs/ft	Min. Wall, inches	Weight, lbs/ft	Min. Wall, inches	Weight, lbs/ft
½”	0.840	0.120	0.12	0.093	0.10	0.076	0.08	---	---	---	---	---	---	---	---	---	---
¾”	1.050	0.150	0.18	0.117	0.15	0.095	0.13	---	---	---	---	---	---	---	---	---	---
1”	1.315	0.188	0.29	0.146	0.23	0.120	0.20	---	---	---	---	---	---	---	---	---	---
1 ¼”	1.660	0.237	0.46	0.184	0.37	0.151	0.31	0.123	0.26	---	---	---	---	---	---	---	---
1 ½”	1.900	0.271	0.60	0.211	0.49	0.173	0.41	0.141	0.34	---	---	---	---	---	---	---	---
2”	2.375	0.339	0.94	0.264	0.76	0.216	0.64	0.176	0.53	0.140	0.43	---	---	---	---	---	---
3”	3.500	0.500	2.05	0.389	1.66	0.318	1.39	0.259	1.15	0.206	0.93	0.167	0.76	0.135	0.62	---	---
4”	4.500	0.643	3.38	0.500	2.74	0.409	2.29	0.333	1.91	0.265	1.54	0.214	1.26	0.173	1.03	0.138	0.83
5”	5.375	0.768	4.83	0.597	3.91	0.489	3.27	0.398	2.72	0.316	2.20	0.256	1.80	0.207	1.47	0.165	1.19
5”	5.563	0.795	5.17	0.618	4.18	0.506	3.51	0.412	2.91	0.327	2.35	0.265	1.93	0.214	1.57	0.171	1.27
6”	6.625	0.946	7.34	0.736	5.93	0.602	4.97	0.491	4.13	0.390	3.34	0.315	2.74	0.255	2.23	0.204	1.80
7”	7.125	1.018	8.49	0.792	6.86	0.648	5.75	0.528	4.78	0.419	3.86	0.339	3.17	0.274	2.58	0.219	2.08
8”	8.625	1.232	12.43	0.958	10.05	0.784	8.43	0.639	7.00	0.507	5.66	0.411	4.64	0.332	3.78	0.265	3.05
10”	10.750	1.536	19.31	1.194	15.62	0.977	13.09	0.796	10.88	0.632	8.79	0.512	7.20	0.413	5.88	0.331	4.74
12”	12.750	1.821	27.17	1.417	21.97	1.159	18.41	0.944	15.30	0.750	12.36	0.607	10.13	0.490	8.27	0.392	6.67
14”	14.00	2.000	32.76	1.556	26.49	1.273	22.20	1.037	18.45	0.824	14.91	0.667	12.22	0.538	9.97	0.431	8.04
16”	16.00	2.286	42.79	1.778	34.60	1.455	28.99	1.185	24.09	0.941	19.47	0.762	15.96	0.615	13.02	0.492	10.51
18”	18.00	2.571	54.15	2.000	43.79	1.636	36.70	1.333	30.49	1.059	24.64	0.857	20.20	0.692	16.48	0.554	13.30
20”	20.00	2.857	66.85	2.222	54.06	1.818	45.30	1.481	37.64	1.176	30.42	0.952	24.94	0.769	20.35	0.615	16.42
22”	22.00	---	---	2.444	65.41	2.000	54.82	1.630	45.55	1.294	36.81	1.048	30.17	0.846	24.62	0.677	19.86
24”	24.00	---	---	2.667	77.85	2.182	65.24	1.778	54.21	1.412	43.80	1.143	35.99	0.923	29.30	0.738	23.64
28”	28.00	---	---	3.111	105.96	2.545	88.80	2.074	73.78	0.647	59.62	1.333	48.87	1.077	39.88	0.862	32.17
30”	30.00	---	---	3.333	121.63	2.727	101.93	2.222	84.70	1.765	68.44	1.429	56.11	1.154	45.78	0.923	36.93
32”	32.00	---	---	3.556	138.39	2.909	115.98	2.370	96.37	1.882	77.87	1.524	63.84	1.231	52.09	0.985	42.02
36”	36.00	---	---	4.000	175.152	3.273	146.78	2.667	121.96	2.118	98.55	1.714	80.79	1.385	65.92	1.108	53.19
42”	42.00	---	---	---	---	---	---	3.111	166.01	2.471	134.14	2.000	109.97	1.615	89.73	1.292	72.39
48”	48.00	---	---	---	---	---	---	---	---	2.824	175.21	2.286	143.63	1.846	117.19	1.477	94.55
54”	54.00	---	---	---	---	---	---	---	---	3.176	221.74	2.571	181.78	2.077	148.32	1.662	119.67
63”	63.00	---	---	---	---	---	---	---	---	3.706	301.818	3.000	247.42	2.423	201.89	1.938	162.88
65”	65.00	---	---	---	---	---	---	---	---	3.824	321.285	3.095	263.38	2.500	214.91	2.000	173.39

PolyPipe® PE3408/PE3608 Pipe

Pipe Data and Pressure Ratings – DIPS

Pressure Rating		Class 265 DR7		Class 200 DR9		Class 160 DR11		Class 130 DR13.5		Class 100 DR17		Class 80 DR21		Class 65 DR26		Class 50 DR32.5	
Nominal Pipe Size	OD Size, inches	Min. Wall, inches	Weight, lbs/ft	Min. Wall, inches	Weight, lbs/ft	Min. Wall, inches	Weight, lbs/ft	Min. Wall, inches	Weight, lbs/ft	Min. Wall, inches	Weight, lbs/ft	Min. Wall, inches	Weight, lbs/ft	Min. Wall, inches	Weight, lbs/ft	Min. Wall, inches	Weight, lbs/ft
3”	3.96	0.566	2.62	0.440	2.12	0.360	1.78	0.293	1.48	0.233	1.19	0.189	0.98	0.152	0.80	0.122	0.64
4”	4.80	0.686	3.85	0.533	3.11	0.436	2.61	0.356	2.17	0.282	1.75	0.229	1.44	0.185	1.17	0.148	0.95
6”	6.90	0.986	7.96	0.767	6.43	0.627	5.39	0.511	4.48	0.406	3.62	0.329	2.97	0.265	2.42	0.212	1.95
8”	9.05	1.293	13.69	1.006	11.07	0.823	9.28	0.670	7.71	0.532	6.23	0.431	5.11	0.348	4.17	0.278	3.36
10”	11.10	1.586	20.59	1.233	16.65	1.009	13.95	0.822	11.60	0.653	9.37	0.529	7.81	0.427	6.27	0.342	5.06
12”	3.20	1.886	29.12	1.467	23.55	1.200	19.73	0.978	16.40	0.776	13.25	0.629	10.86	0.508	8.86	0.406	7.15
14”	15.30	2.186	39.12	1.700	31.64	1.391	26.51	1.133	22.03	0.900	17.80	0.729	14.59	0.588	11.91	0.471	9.61
16”	17.40	2.486	50.60	1.933	40.92	1.582	34.29	1.289	28.49	1.024	23.02	0.829	18.87	0.669	15.40	0.535	12.43
18”	19.50	2.786	63.55	2.167	51.39	1.773	43.07	1.444	35.79	1.147	28.92	0.929	23.70	0.750	19.34	0.600	15.61
20”	21.60	3.086	77.98	2.400	63.06	1.964	52.84	1.600	43.91	1.271	35.48	1.029	29.09	0.831	23.73	0.665	19.15
24”	25.80	---	---	2.867	89.96	2.345	75.39	1.911	62.64	1.518	50.62	1.229	41.50	0.992	33.86	0.794	27.32
30”	32.00	---	---	---	---	---	---	2.370	96.37	1.882	77.87	1.524	63.84	1.231	52.09	0.985	42.02
36”*	38.30	---	---	---	---	---	---	---	---	2.253	111.55	1.824	91.45	1.473	74.61	1.178	60.20
42”*	44.50	---	---	---	---	---	---	---	---	2.618	150.59	2.119	123.45	1.712	100.73	1.369	81.27
48”*	50.80	---	---	---	---	---	---	---	---	---	---	2.419	160.88	1.954	131.27	1.563	105.91
54”*	57.56	---	---	---	---	---	---	---	---	---	---	2.741	206.54	2.214	168.53	1.771	135.97
60”*	61.61	---	---	---	---	---	---	---	---	---	---	---	---	2.370	193.07	1.896	155.77

NOTES:

- PolyPipe® PE3608 Pipe is manufactured in accordance with the following standards:
  - For sizes ½” IPS through 3” IPS products are manufactured in accordance with AWWA C-901 and/or ASTM D3035.
  - For sizes 4” IPS through 60” DIPS products are manufactured in accordance with AWWA C-906 and/or ASTM F714.
  - Metric sizes also available.
  - Coiled pipe available through 6” OD and straight lengths available in 40’ and 50’ lengths. For custom lengths, contact a Customer Service Representative.
  - Tested and certified to NSF Standard 61. ***Note: Products tested and certified to NSF Standard 14 are also available upon request.***
  - Factory Mutual (FM) pipe available upon request
- Pressures are based on using water at 23°C (73.4°F) and are determined by use of the Hydrostatic Design Stress (HDS) as established by the Hydrostatic Stress Board (HSB) of the Plastics Pipe Institute (PPI).
- Service factors should be utilized to compensate for the effect of substances other than water and for higher temperatures.
- The above weights for IPS and DIPS sizes are calculated in accordance with Plastics Pipe Institute (PPI) TR-7, using a value of 0.955 for density.
- Available with color-coded striping.
- Some sizes listed are special order. Call for availability on sizes.
- *Require Additional Lead-Time.

PolyPipe® PE3408/PE4710/PE100 Pipe

Pipe Data and Pressure Ratings – IPS

Pressure Rating		DR7 335 psi		DR9 255 psi		DR11 200 psi		DR13.5 160 psi		DR17 125 psi		DR21 100 psi		DR26 80 psi		DR32.5 65 psi	
Nominal Pipe Size	OD Size, inches	Min. Wall, inches	Weight, lbs/ft	Min. Wall, inches	Weight, lbs/ft	Min. Wall, inches	Weight, lbs/ft	Min. Wall, inches	Weight, lbs/ft	Min. Wall, inches	Weight, lbs/ft	Min. Wall, inches	Weight, lbs/ft	Min. Wall, inches	Weight, lbs/ft	Min. Wall, inches	Weight, lbs/ft
½”	0.840	0.120	0.119	0.093	0.096	0.076	0.080	---	---	---	---	---	---	---	---	---	---
¾”	1.050	0.150	0.185	0.117	0.150	0.095	0.126	---	---	---	---	---	---	---	---	---	---
1”	1.315	0.188	0.291	0.146	0.235	0.120	0.197	---	---	---	---	---	---	---	---	---	---
1 ¼”	1.660	0.237	0.463	0.184	0.374	0.151	0.314	0.123	0.261	---	---	---	---	---	---	---	---
1 ½”	1.900	0.271	0.607	0.211	0.490	0.173	0.411	0.141	0.342	---	---	---	---	---	---	---	---
2”	2.375	0.339	0.948	0.264	0.766	0.216	0.642	0.176	0.534	0.140	0.431	---	---	---	---	---	---
3”	3.500	0.500	2.058	0.389	1.664	0.318	1.395	0.259	1.159	0.206	0.936	0.167	0.768	0.135	0.626	---	---
4”	4.500	0.643	3.402	0.500	2.751	0.409	2.306	0.333	1.916	0.265	1.548	0.214	1.269	0.173	1.035	0.138	0.835
5”	5.375	0.768	4.854	0.597	3.925	0.489	3.289	0.398	2.733	0.316	2.208	0.256	1.810	0.207	1.477	0.165	1.192
5”	5.563	0.795	5.199	0.618	4.204	0.506	3.523	0.412	2.928	0.327	2.366	0.265	1.939	0.214	1.582	0.171	1.277
6”	6.625	0.946	7.374	0.736	5.963	0.602	4.997	0.491	4.152	0.390	3.355	0.315	2.750	0.255	2.244	0.204	1.811
7”	7.125	1.018	8.529	0.792	6.897	0.648	5.780	0.528	4.802	0.419	3.881	0.339	3.181	0.274	2.596	0.219	2.094
8”	8.625	1.232	12.498	0.958	10.106	0.784	8.470	0.639	7.037	0.507	5.687	0.411	4.662	0.332	3.804	0.265	3.069
10”	10.75	1.536	19.416	1.194	15.700	0.977	13.157	0.796	10.932	0.632	8.834	0.512	7.242	0.413	5.909	0.331	4.767
12”	12.75	1.821	27.312	1.417	22.085	1.159	18.508	0.944	15.379	0.750	12.427	0.607	10.187	0.490	8.312	0.392	6.703
14”	14.00	2.000	32.930	1.556	26.628	1.273	22.315	1.037	18.542	0.824	14.983	0.667	12.282	0.538	10.022	0.431	8.086
16”	16.00	2.286	43.010	1.778	34.779	1.455	29.146	1.185	24.218	0.941	19.569	0.762	16.042	0.615	13.090	0.492	10.561
18”	18.00	2.571	54.435	2.000	44.017	1.636	36.888	1.333	30.651	1.059	24.767	0.857	20.304	0.692	16.567	0.554	13.366
20”	20.00	2.857	67.203	2.222	54.342	1.818	45.541	1.481	37.840	1.176	30.577	0.952	25.066	0.769	20.453	0.615	16.501
22”	22.00	---	---	2.444	65.754	2.000	55.105	1.630	45.787	1.294	36.998	1.048	30.330	0.846	24.748	0.677	19.967
24”	24.00	---	---	2.667	78.253	2.182	65.579	1.778	54.490	1.412	44.031	1.143	36.095	0.923	29.452	0.738	23.762
28”	28.00	---	---	3.111	106.51	2.545	89.260	2.074	74.167	0.647	59.931	1.333	49.130	1.077	40.087	0.862	32.342
30”	30.00	---	---	3.333	121.63	2.727	102.467	2.222	85.141	1.765	68.798	1.429	56.399	1.154	46.019	0.923	37.128
32”	32.00	---	---	3.556	139.12	2.909	116.59	2.370	96.871	1.882	78.277	1.524	64.169	1.231	52.359	0.985	42.243
36”	36.00	---	---	4.000	176.069	3.273	146.78	2.667	121.96	2.118	99.069	1.714	81.214	1.385	66.267	1.108	53.464
42”	42.00	---	---	---	---	---	---	3.111	166.88	2.471	134.844	2.000	110.542	1.615	89.73	1.292	72.771
48”	48.00	---	---	---	---	---	---	---	---	2.824	176.122	2.286	144.381	1.846	117.808	1.477	95.047
54”	54.00	---	---	---	---	---	---	---	---	3.176	222.91	2.571	182.732	2.077	149.100	1.662	120.294
63”	63.00	---	---	---	---	---	---	---	---	3.706	303.398	3.000	248.72	2.423	202.94	1.938	163.73
65”	65.00	---	---	---	---	---	---	---	---	3.824	322.967	3.095	264.76	2.500	216.03	2.000	174.29

PolyPipe® PE3408/PE4710/PE100 Pipe

Pipe Data and Pressure Ratings – DIPS

Pressure Rating		DR7 335 psi		DR9 255 psi		DR11 200 psi		DR13.5 160 psi		DR17 125 psi		DR21 100 psi		DR26 80 psi		DR32.5 65 psi	
Nominal Pipe Size	OD Size, inches	Min. Wall, inches	Weight, lbs/ft	Min. Wall, inches	Weight, lbs/ft	Min. Wall, inches	Weight, lbs/ft	Min. Wall, inches	Weight, lbs/ft	Min. Wall, inches	Weight, lbs/ft	Min. Wall, inches	Weight, lbs/ft	Min. Wall, inches	Weight, lbs/ft	Min. Wall, inches	Weight, lbs/ft
3”	3.96	0.566	2.635	0.440	2.130	0.360	1.785	0.293	1.483	0.233	1.199	0.189	0.983	0.152	0.802	0.122	0.647
4”	4.80	0.686	3.871	0.533	3.130	0.436	2.623	0.356	2.180	0.282	1.761	0.229	1.444	0.185	1.178	0.148	0.950
6”	6.90	0.986	7.999	0.767	6.468	0.627	5.421	0.511	4.504	0.406	3.639	0.329	2.984	0.265	2.434	0.212	1.964
8”	9.05	1.293	13.760	1.006	11.127	0.823	9.325	0.670	7.748	0.532	6.261	0.431	5.132	0.348	4.188	0.278	3.379
10”	11.10	1.586	20.700	1.233	16.739	1.009	14.028	0.822	11.656	0.653	9.418	0.529	7.721	0.427	6.300	0.342	5.083
12”	13.20	1.886	29.274	1.467	23.671	1.200	19.838	0.978	16.483	0.776	13.319	0.629	10.919	0.508	8.909	0.406	7.188
14”	15.30	2.186	39.329	1.700	31.802	1.391	26.652	1.133	22.145	0.900	17.894	0.729	14.669	0.588	11.969	0.471	9.657
16”	17.40	2.486	50.866	1.933	41.132	1.582	34.470	1.289	28.641	1.024	23.144	0.829	18.973	0.669	15.481	0.535	12.490
18”	19.50	2.786	63.885	2.167	51.659	1.773	43.292	1.444	35.972	1.147	29.067	0.929	23.829	0.750	19.443	0.600	15.687
20”	21.60	3.086	78.386	2.400	63.385	1.964	53.119	1.600	44.137	1.271	35.665	1.029	29.237	0.831	23.856	0.665	19.247
24”	25.80	---	---	2.867	90.431	2.345	75.785	1.911	62.970	1.518	50.883	1.229	41.713	0.992	34.035	0.794	27.460
30”	32.00	---	---	---	---	---	---	2.370	96.871	1.882	78.277	1.524	64.169	1.231	52.359	0.985	42.243
36”*	38.30	---	---	---	---	---	---	---	---	2.253	112.132	1.824	91.923	1.473	75.005	1.178	60.514
42”*	44.50	---	---	---	---	---	---	---	---	2.618	151.374	2.119	124.093	1.712	101.254	1.369	81.692
48”*	50.80	---	---	---	---	---	---	---	---	---	---	2.419	161.717	1.954	131.953	1.563	106.460
54”*	57.56	---	---	---	---	---	---	---	---	---	---	2.741	207.620	2.214	169.408	1.771	136.678
60”*	61.61	---	---	---	---	---	---	---	---	---	---	---	---	2.370	194.086	1.896	156.588

NOTES:

- PolyPipe® PE4710 Pipe is manufactured in accordance with the following standards:
  - For sizes ½” IPS through 3” IPS products are manufactured in accordance with AWWA C-901 and/or ASTM D3035.
  - For sizes 4” IPS through 60” DIPS products are manufactured in accordance with AWWA C-906 and/or ASTM F714.
  - Metric sizes also available.
  - Coiled pipe available through 6” OD and straight lengths available in 40’ and 50’ lengths. For custom lengths, contact a Customer Service Representative.
  - Tested and certified to NSF Standard 61. ***Note: Products tested and certified to NSF Standard 14 are also available upon request.***
  - Factory Mutual (FM) pipe available upon request
- Pressures are based on water at 23°C (73.4°F) and are determined by use of the Hydrostatic Design Stress (HDS) as established by the Hydrostatic Stress Board (HSB) of the Plastics Pipe Institute (PPI).
- The above weights for IPS and DIPS sizes are calculated in accordance with Plastics Pipe Institute (PPI) TR-7, using a value of 0.960 for density.
- Available with color-coded striping.
- Some sizes listed are special order. Call for availability on sizes.
- *Require Additional Lead-Time.

PolyPipe® PW HDPE PE3608
Factory Mutual (FM) Approved Pipe

Extra High Molecular Weight High (EHMW) Density Polyethylene for underground fire mains and loops, produced at a facility inspected and approved by the FM Research Corporation.

PolyPipe® FM Pipe Advantages

FM Approved HDPE piping from PolyPipe® offers advantages that other piping products cannot deliver:

- *Superior design life for many years of trouble-free service.*
- *Higher flow coefficients due to the smooth inner wall surface of the pipe.*
- *Outstanding chemical and abrasion resistance assures long-term performance.*
- *Heat-fused, fully restrained joints eliminate leaks.*
- *Proven in the field, HDPE piping materials will deliver excellent underground fire water service with a surge tolerance not found in other piping materials.*

FM APPROVED

FM Approved Pipe Dimensions

		Class 150			Class 200			Class 267*		
Nominal IPS Size, inches	OD, inches	Min. Wall, inches	Avg. ID, inches	Weight, lb/ft	Min. Wall, inches	Avg. ID, inches	Weight, lb/ft	Min. Wall, inches	Avg. ID, inches	Weight, lb/ft
4	4.500	0.409	3.63	2.29	0.500	3.44	2.737	0.643	3.14	3.384
6	6.625	0.602	5.35	4.971	0.736	5.06	5.932	0.946	4.62	7.336
8	8.625	0.784	6.96	8.425	0.958	6.59	10.054	1.232	6.01	12.433
10	10.750	0.977	8.68	13.089	1.194	8.22	15.618	1.536	7.49	19.314
12	12.750	1.159	10.29	18.412	1.417	9.75	21.970	1.821	8.89	27.170
14	14.000	1.273	11.30	22.199	1.556	10.70	26.489	2.000	9.76	32.758
16	16.000	1.455	12.92	28.994	1.778	12.23	34.598	2.286	11.15	42.786
18	18.000	1.636	14.53	36.696	2.000	13.76	43.788	2.571	12.55	54.151
20	20.000	1.818	16.15	45.304	2.222	15.29	54.059	2.857	13.94	66.853
22	22.000	2.000	17.76	54.818	2.445	16.82	65.412	---	---	---
24	24.000	2.182	19.37	65.237	2.667	18.35	77.845	---	---	---
30*	30.000	2.727	24.22	101.934	3.333	22.93	121.633	---	---	---
32*	32.000	2.909	25.83	115.978	3.556	24.60	138.391	---	---	---
34*	34.000	3.091	27.57	130.928	3.778	26.14	156.231	---	---	---
36*	36.000	3.273	29.06	146.784	4.000	27.52	175.152	---	---	---

NOTES:

- PolyPipe® PW FM Approved Pipe is manufactured in accordance with AWWA C-906 with NSF-61 approved resins and is tested and certified by Factory Mutual for use in underground firewater service.
- Pressures are based on water at 23°C (73.4°F) and are determined per AWWA C-906.
- Stalks lengths available in 40’ or 50’ lengths.
- The above weights are calculated in accordance with the Plastics Pipe Institute (PPI) TR-7, using a value of 0.955 for density.
- Available with permanent red stripe upon request.
- *Available soon.

PolyPipe® PW FM Approved Pipe

Typical Printline: **12" IPS SDR 9 – POLYPIPE® PW – PE3408/PE3608 – AWWA C906-99 – PC200 – ASTM F714 C3 -- MANUFACTURING CODE – NSF-61 -- <FM>**

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 @ Yield	D638	22.1 MPa	3,200 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	Class C
		Category 5	
PPI HYDROSTATIC DESIGN BASIS (HDB)	D2837	11.0 MPa @ 23°C	1,600 psi @ 73.4°F
(As listed in PPI TR-4)		5.5 MPa @ 60°C	800 psi @ 140°F
PPI Hydrostatic Design Stress (HDS)			800 psi @ 73.4°F
(As established by the Hydrostatic Stress Board (HSB) of the Plastics Pipe Institute (PPI))			

*Nominal values are intended to be guides only, and not as specification limit.
*Some of the data listed above was determined from compression molded test specimens; therefore, may deviate from pipe specimens.

PolyStripe™ Color Coded Polyethylene Pipe

PolyStripe™, color coded polyethylene pipe, can be manufactured in accordance with the color striping codes developed by the Utility Location and Coordination Council of the American Public Works Association (APWA). Colored stripes are co-extruded into the pipe outside surface.

PolyStripe™ Standard Color Designations

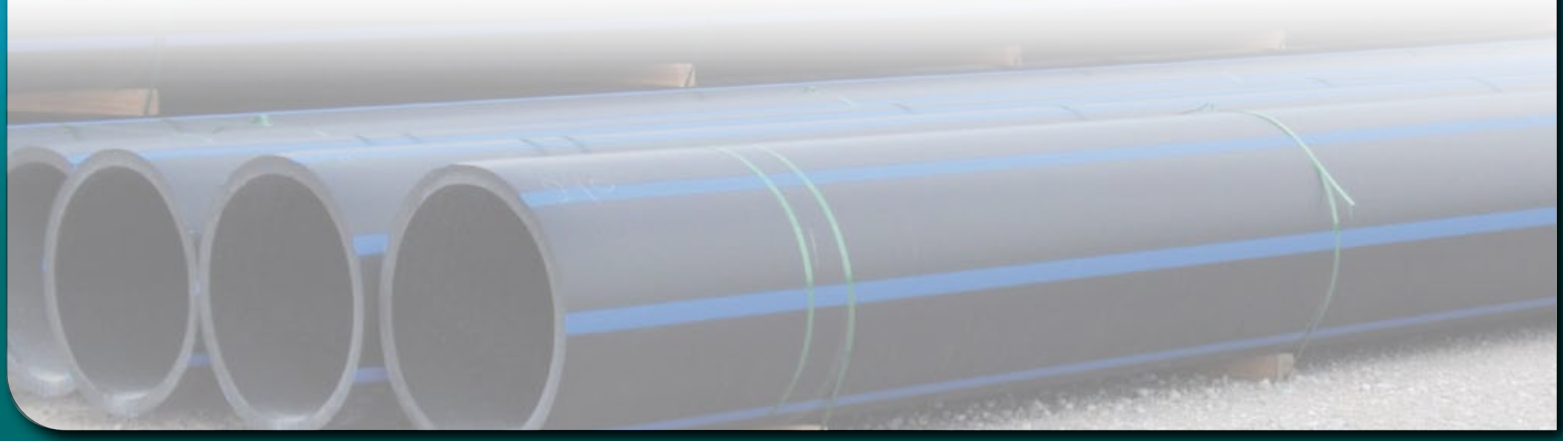
- ***Red*** **-** Electric power lines, conduit lighting cables, and FM approved underground fire mains
- ***Orange*** **-** Communications, alarm or signal lines, cables or conduits
- ***Yellow*** **-** Gas distribution
- ***Blue*** **-** Potable water lines
- ***Green*** **-** Sewer and drain lines
- ***Purple*** **-** Reclaim water lines

In addition, heat indented printlines include the type of polyethylene material, pipe size, applicable manufacturing standards and certifications, material identification codes and the date and location of manufacture.

PolyStripe™ Color Designations for DR

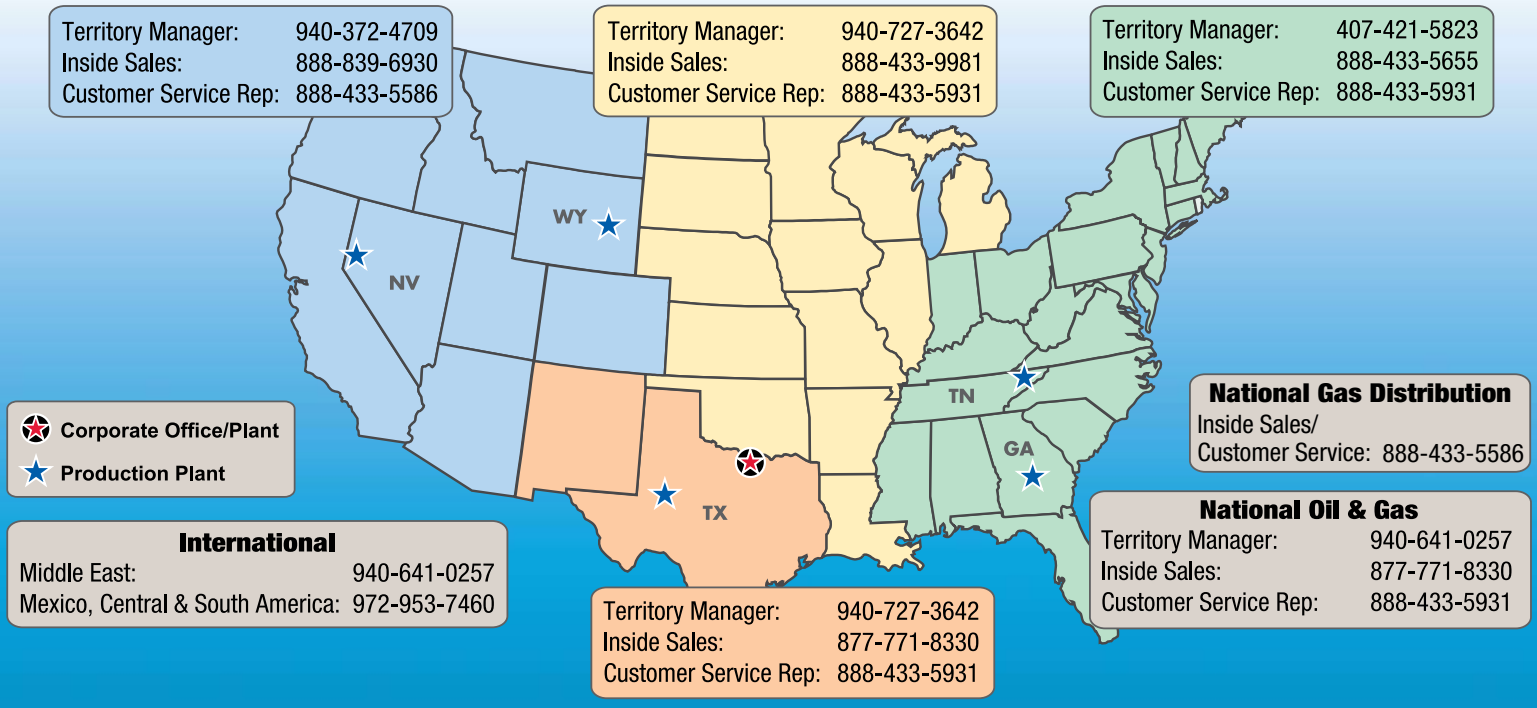
Some industrial and mining applications utilize color striping to provide a quick visual indicator of pipe DR. PolyPipe PolyStripe™ is available with the following color stripes that comply with these industry suggested DR designations. Other color/DR combinations are available upon request.

Color	White	Red	Yellow	Gray	Orange	Blue	Purple	Green	Pink	Brown
DR	7	9	11	13.5	15.5	17	21	26	32.5	41



Notes

PolyPipe®



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