

## PolyPipe® EHMW Plus™ PE4710 (ISO PE100) Pipe

Extra High Molecular Weight Plus™ (EHMWP) High Density Polyethylene is designed for use in applications such as mining, landfill, dredge, gas gathering, water reclamation or sewer. EHMW Plus™ (ISO PE100) is an ideal alternative to EHMW PE3608 (formerly PE3408) applications requiring additional performance from abrasion resistance, higher-pressure requirements or elevated temperatures as the single design need or in combination of design concerns.

➤ Other dimensional standards or custom requirements available.

<b>TYPICAL PHYSICAL PROPERTIES</b>			
<b>PROPERTY</b>	<b>ASTM TEST METHOD</b>	<b>*NOMINAL VALUES</b>	
		<b>SI UNITS</b>	<b>ENGLISH UNITS</b>
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 @Ultimate	D638	35.1 MPa	5,100 psi
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 <sub>0</sub> , Condition C	D1693	--	--
PENT	F1473	>3,000 hrs.	>3,000 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 <sub>f</sub> /in
Volume Resistivity	D991	>10 <sup>15</sup> ohm-cm	--
Thermal Expansion Coefficient		2x10 <sup>-4</sup> cm/cm/°C	1.0x10 <sup>-4</sup> in/in/°F
CELL CLASSIFICATION:	D3350	445574C	PE47
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.

### PolyPipe, Inc.

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**POLYPIPE<sup>®</sup> EHMW Plus<sup>™</sup> PE4710 (ISO PE100) Pipe**  
**Pipe Data and Pressure Ratings – IPS**

Pressure Rating		DR7.3 315 psi		DR9 250 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	0.12	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	0.325	0.92	0.264	0.76	0.216	0.64	0.176	0.53	0.140	0.43	---	---	---	---	---	---
3"	3.500	0.479	1.99	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	0.616	3.29	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	0.736	4.69	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	0.762	5.02	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	0.908	7.12	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	0.976	8.24	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	1.182	12.07	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	1.473	18.75	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	1.747	26.38	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	1.918	31.81	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	2.192	41.55	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	2.466	52.58	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	2.740	64.91	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	---	---	---	---	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	---	---	---	---	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	---	---	---	---	---	---	2.370	96.37	1.882	77.87	1.524	63.84	1.231	52.09	0.985	42.02
36"	36.00	---	---	---	---	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	---	---	---	---	---	---	---	---	2.471	134.14	2.000	109.97	1.615	89.73	1.292	72.39
48"	48.00	---	---	---	---	---	---	---	---	---	---	2.286	143.63	1.846	117.19	1.477	94.55
54"	54.00	---	---	---	---	---	---	---	---	---	---	2.571	181.78	2.077	148.32	1.662	119.67
63"	63.00	---	---	---	---	---	---	---	---	---	---	3.000	248.72	2.423	202.94	1.938	163.73
65"	65.00	---	---	---	---	---	---	---	---	---	---	3.095	264.76	2.500	216.03	2.000	174.29

\*See notes on Page 3 for product and pressure rating information.

**POLYPIPE® EHMW Plus™ PE4710 (ISO PE100) Pipe**  
**Pipe Data and Pressure Ratings – DIPS**

Pressure Rating		DR7.3 315 psi		DR9 250 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
3"	3.96	0.542	2.55	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	0.658	3.74	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	0.945	7.73	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	1.240	13.29	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	1.521	20.00	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"	13.20	1.808	28.28	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	2.096	37.99	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	2.384	49.13	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	2.671	61.71	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	2.959	75.72	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	207.62	2.214	169.41	1.771	136.68
60"	61.61	---	---	---	---	---	---	---	---	---	---	---	---	2.370	194.09	1.896	156.59
64"	65.67	---	---	---	---	---	---	---	---	---	---	---	---	2.526	220.51	2.021	177.91

- NOTES :
- PolyPipe® EHMW Plus PE4710 Pipe is manufactured in accordance with the following standards:
    - ◆ For sizes ½" IPS through 3" IPS, products are manufactured in accordance with ASTM D3035.
    - ◆ For sizes 4" IPS through 64" DIPS, products are manufactured in accordance with 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.
  - 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.



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***Fernley Plant***

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***Sandersville Plant***

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PolyPipe® is an active member of the Plastics Pipe Institute, AWWA, AGA and ASTM.

ISO 9001:2000



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