INDEPENDENT PIPE PRODUCTS, INC.

Issued June 2010

"BETTER BY DESIGN"®

IPS HDPE PIPE

Iron Pipe Size PE4710
High Density Polyethylene Pipe

DESIGN-FLOW®

www.independentpipeproducts.com

AVAILABLE STANDARDS:
Design-Flow M & I PE4710 HDPE ASTM F714 / D3035 AWWAC901/C906 NSF-61
Design-Flow FM Approved PE4710 HDPE FM 1631
Design-Flow Oil & Gas PE4710 / PE3408 HDPE ASTM D2513 CFR-192
Design-Flow Gray SL PE4710 HDPE ASTM F714 / D3035

Size		DR 32.5 CLASS 65 WPR @ 65 psi			DR 26 CLASS 80 WPR @ 80 psi			DR 21 CLASS 100 WPR @ 100 psi			DR 19 CLASS 110 WPR @ 110 psi			DR 17 CLASS 130 WPR @ 130 psi			DR 13.5 CLASS 160 WPR @ 160 psi			DR 11 CLASS 200 WPR @ 200 psi			DR 9 CLASS 250 WPR @ 250 psi			DR 7 CLASS 335 WPR @ 335 psi		
IPS Pipe Size	Pipe OD (in)	Avg ID (in)	Min Wall (in)	Weight (lbs/ft)	Avg ID (in)	Min Wall (in)	Weight (lbs/ft)	Avg ID (in)	Min Wall (in)	Weight (lbs/ft)	Avg ID (in)	Min Wall (in)	Weight (lbs/ft)	Avg ID (in)	Min Wall (in)	Weight (lbs/ft)	Avg ID (in)	Min Wall (in)	Weight (lbs/ft)	Avg ID (in)	Min Wall (in)	Weight (lbs/ft)	Avg ID (in)	Min Wall (in)	Weight (lbs/ft)	Avg ID (in)	Min Wall (in)	Weight (lbs/ft)
2"	**2.375**	-	-	-	-	-	-	-	-	-	-	-	-	2.078	0.140	0.43	2.002	0.176	0.53	**1.917**	**0.216**	**0.64**	**1.815**	**0.264**	**0.77**	1.656	0.339	0.95
3"	**3.500**	-	-	-	-	-	-	-	-	-	-	-	-	3.063	0.206	0.94	2.951	0.259	1.16	**2.826**	**0.318**	**1.39**	**2.675**	**0.389**	**1.66**	2.440	0.500	2.06
4"	**4.500**	-	-	-	-	-	-	4.046	0.214	1.27	-	-	-	3.938	0.265	1.55	3.794	0.333	1.92	**3.633**	**0.409**	**2.31**	**3.440**	**0.500**	**2.75**	3.137	0.643	3.40
5"	**5.563**	-	-	-	5.109	0.214	1.58	5.001	0.265	1.94	4.942	0.293	2.13	4.870	0.327	2.37	4.690	0.412	2.93	**4.490**	**0.506**	**3.52**	4.253	0.618	4.20	3.877	0.795	5.20
6"	**6.625**	-	-	-	6.084	0.255	2.24	5.957	0.315	2.75	5.886	0.349	3.02	**5.798**	**0.390**	**3.36**	5.584	0.491	4.15	**5.349**	**0.602**	**5.00**	**5.065**	**0.736**	**5.96**	4.619	0.946	7.37
8"	**8.625**	-	-	-	7.921	0.332	3.80	7.754	0.411	4.66	7.663	0.454	5.12	**7.550**	**0.507**	**5.69**	7.270	0.639	7.04	**6.963**	**0.784**	**8.47**	**6.594**	**0.958**	**10.11**	6.013	1.232	12.50
10"	**10.750**	-	-	-	9.874	0.413	5.91	9.665	0.512	7.24	9.551	0.566	7.96	**9.410**	**0.632**	**8.83**	9.062	0.796	10.93	**8.679**	**0.977**	**13.16**	**8.219**	**1.194**	**15.70**	7.494	1.536	19.42
12"	**12.750**	-	-	-	11.711	0.490	8.31	11.463	0.607	10.19	11.327	0.671	11.20	**11.160**	**0.750**	**12.43**	10.749	0.944	15.38	**10.293**	**1.159**	**18.51**	**9.746**	**1.417**	**22.08**	8.889	1.821	27.31
14"	**14.000**	-	-	-	12.859	0.538	10.02	12.586	0.667	12.28	12.438	0.737	13.50	**12.253**	**0.824**	**14.98**	11.802	1.037	18.54	**11.301**	**1.273**	**22.32**	**10.701**	**1.556**	**26.63**	9.760	2.000	32.93
16"	**16.000**	-	-	-	14.696	0.615	13.09	14.385	0.762	16.04	14.215	0.842	17.63	**14.005**	**0.941**	**19.57**	13.488	1.185	24.22	**12.915**	**1.455**	**29.15**	**12.231**	**1.778**	**34.78**	11.154	2.286	43.01
18"	**18.000**	-	-	-	16.533	0.692	16.57	16.183	0.857	20.30	15.992	0.947	22.32	**15.755**	**1.059**	**24.77**	15.174	1.333	30.65	**14.532**	**1.636**	**36.89**	**13.760**	**2.000**	**44.02**	12.549	2.571	54.43
20"	**20.000**	18.695	0.615	16.50	18.370	0.769	20.45	17.982	0.952	25.07	17.768	1.053	27.55	**17.507**	**1.176**	**30.58**	16.860	1.481	37.84	**16.146**	**1.818**	**45.54**	**15.289**	**2.222**	**54.34**	13.943	2.857	67.20
22"	**22.000**	20.565	0.677	19.97	20.206	0.846	24.75	19.778	1.048	30.33	19.545	1.158	33.34	19.257	1.294	37.00	18.544	1.630	45.79	**17.760**	**2.000**	**55.10**	**16.819**	**2.444**	**65.75**	15.337	3.143	81.32
24"	**24.000**	22.434	0.738	23.76	22.043	0.923	29.45	21.577	1.143	36.10	21.322	1.263	39.67	**21.007**	**1.412**	**44.03**	20.231	1.778	54.49	**19.374**	**2.182**	**65.58**	**18.346**	**2.667**	**78.25**	16.731	3.429	96.77
26"	**26.000**	24.304	0.800	27.89	23.880	1.000	34.57	23.375	1.238	42.36	23.099	1.368	46.56	22.758	1.529	51.67	21.917	1.926	63.95	20.989	2.364	76.96	19.876	2.889	91.84	-	-	-
28"	**28.000**	26.174	0.862	32.34	25.717	1.077	40.09	25.173	1.333	49.13	24.876	1.474	54.00	24.508	1.647	59.93	23.603	2.074	74.17	22.604	2.545	89.26	21.404	3.111	106.51	-	-	-
30"	**30.000**	28.043	0.923	37.13	27.554	1.154	46.02	26.971	1.429	56.40	26.653	1.579	61.99	26.259	1.765	68.80	25.289	2.222	85.14	24.218	2.727	102.47	22.933	3.333	122.27	-	-	-
32"	**32.000**	29.913	0.985	42.24	29.391	1.231	52.36	28.770	1.524	64.17	28.429	1.684	70.53	28.009	1.882	78.28	26.975	2.370	96.87	25.833	2.909	116.58	24.462	3.556	139.12	-	-	-
36"	**36.000**	33.652	1.108	53.46	33.065	1.385	66.27	32.366	1.714	81.21	31.983	1.895	89.26	31.511	2.118	99.07	30.347	2.667	122.60	29.062	3.273	147.55	-	-	-	-	-	-
42"	**42.000**	39.260	1.292	72.77	38.575	1.615	90.20	37.760	2.000	110.54	-	-	-	36.762	2.471	134.84	35.404	3.111	166.88	-	-	-	-	-	-	-	-	-
48"	**48.000**	44.869	1.477	95.05	44.086	1.846	117.81	43.154	2.286	144.38	-	-	-	42.014	2.824	176.12	-	-	-	-	-	-	-	-	-	-	-	-
54"	**54.000**	50.478	1.662	120.29	49.597	2.077	149.10	48.549	2.571	182.73	-	-	-	47.266	3.176	222.90	-	-	-	-	-	-	-			-	-	-
63"	**63.000**	58.890	1.938	163.73	57.863	2.423	202.94	56.640	3.000	248.72	-	-	-	-	-	-	-	-	-	-	-	-				-	-	-
65"	**65.000**	60.760	2.000	174.29	59.700	2.500	216.03	58.438	3.095	264.76	-	-	-	-	-	-	-	-	-	-	-	-				-	-	-

Pressure Ratings are calculated using 0.63 design factor for HDS at 73°F as listed in PPI TR-4 for PE 4710 materials. Temperature, chemical, and environmental use considerations may require use of additional design factors. Pipe weights are calculated in accordance with PPI TR-7. Average inside diameter is calculated with nominal OD and minimum wall thickness plus 6%. Actual ID's will vary and are controlled by the dimensions and tolerances listed in the applicable pipe specifications. Per AWWA C906, the working pressure rating equals the pressure class, with an allowance included in the WPR for pressure surge. The pressure and surge design basis for polyethylene pipe is different from the PVC and DI pipe design basis.

Other sizes and DR's are available, contact your customer service representative @ 1-800-499-6927. Also see www.indpipe.net.

• STANDARD SIZES AND DR'S SHOWN IN BOLD PRINT•

The Long-Term Hydrostatic Strength of PE4710 Polyethylene Pipe is 1600 psi at 73.4 F. All pipe sizes with the same DR and Long-Term Hydrostatic Strength will have equal operating pressure capability.

$$DR = \frac{\text{Pipe OD (in)}}{\text{Min Wall Thickness (in)}}$$

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4"	**4.800**	4.487	0.148	0.95	4.408	0.185	1.18	4.315	0.229	1.44	4.202	0.282	1.76	4.045	0.356	2.18	**3.876**	**0.436**	**2.62**	3.670	0.533	3.13	3.346	0.686	3.87
6"	**6.900**	6.450	0.212	1.96	6.338	0.265	2.43	6.203	0.329	2.98	**6.039**	**0.406**	**3.64**	5.817	0.511	4.50	**5.571**	**0.627**	**5.42**	5.274	0.767	6.47	4.810	0.986	8.00
8"	**9.050**	8.460	0.278	3.38	8.312	0.348	4.19	8.136	0.431	5.13	**7.922**	**0.532**	**6.26**	7.630	0.670	7.75	**7.305**	**0.823**	**9.32**	6.917	1.006	11.13	6.309	1.293	13.76
10"	**11.100**	10.376	0.342	5.08	10.195	0.427	6.30	9.979	0.529	7.72	**9.716**	**0.653**	**9.42**	9.357	0.822	11.66	**8.961**	**1.009**	**14.03**	8.486	1.233	16.74	7.738	1.586	20.70
12"	**13.200**	12.339	0.406	7.19	12.123	0.508	8.91	11.867	0.629	10.92	**11.555**	**0.776**	**13.32**	11.127	0.978	16.48	**10.656**	**1.200**	**19.84**	10.090	1.467	23.67	9.202	1.886	29.27
14"	**15.300**	14.302	0.471	9.66	14.053	0.588	11.97	13.755	0.729	14.67	**13.392**	**0.900**	**17.89**	12.898	1.133	22.15	**12.351**	**1.391**	**26.65**	11.696	1.700	31.80	10.666	2.186	39.33
16"	**17.400**	16.265	0.535	12.49	15.982	0.669	15.48	15.643	0.829	18.97	**15.229**	**1.024**	**23.14**	14.667	1.289	28.64	**14.046**	**1.582**	**34.47**	13.302	1.933	41.13	12.130	2.486	50.87
18"	**19.500**	18.228	0.600	15.69	17.910	0.750	19.44	17.531	0.929	23.83	**17.068**	**1.147**	**29.07**	16.439	1.444	35.97	**15.741**	**1.773**	**43.29**	14.906	2.167	51.66	13.594	2.786	63.89
20"	**21.600**	20.191	0.665	19.25	19.838	0.831	23.86	19.419	1.029	29.24	**18.905**	**1.271**	**35.66**	18.208	1.600	44.14	**17.436**	**1.964**	**53.12**	16.512	2.400	63.38	15.058	3.086	78.39
24"	**25.800**	24.117	0.794	27.46	23.697	0.992	34.04	23.195	1.229	41.71	**22.582**	**1.518**	**50.88**	21.749	1.911	62.97	**20.829**	**2.345**	**75.78**	19.722	2.867	90.43	17.986	3.686	111.83
30"	32.000	29.913	0.985	42.24	29.391	1.231	52.36	28.770	1.524	64.17	28.009	1.882	78.28	26.975	2.370	96.87	25.833	2.909	116.58	24.462	3.556	139.12	-	-	-
36"	38.300	35.802	1.178	60.51	35.177	1.473	75.00	34.434	1.824	91.92	33.524	2.253	112.13	32.285	2.837	138.77	-	-	-	-	-	-			
42"	44.500	41.597	1.369	81.69	40.872	1.712	41.077	40.008	2.119	40.262	-	-	-	-	-	-	-	-	-	-	-	-			
48"	50.800	47.486	1.563	106.46	46.658	1.954	46.892	45.672	2.419	45.962	-	-	-	-	-	-	-	-	-	-	-	-			

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