

DESIGN-FLOW® | DIPS HDPE PIPE DUCTILE IRON PIPE SIZE PE4710 | HIGH DENSITY POLYETHYLENE PIPE

GEORG FISCHER CENTRAL PLASTICS AVAILABLE STANDARDS:

DESIGN-FLOW® M & I PE4710 HDPE ASTM F714/D3035 AWWAC901/C906 NSF-61

DESIGN-FLOW® FM Approved PE4710 HDPE FM1631

Part # 10014098 | September 2014

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 @ 65psi			DR 26 CLASS 80 WPR @ 80psi			DR 21 CLASS 100 WPR @ 100psi			DR 17 CLASS 130 WPR @ 130psi			DR 13.5 CLASS 160 WPR @ 160psi			DR 11 CLASS 200 WPR @ 200psi			DR 9 CLASS 250 WPR @ 250psi			DR 7 CLASS 335 WPR @ 335psi			
DIPS 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)	
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	101.25	40.008	2.119	124.09	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
48"	50.800	47.486	1.563	106.46	46.658	1.954	146.892	131.95	2.419	161.72	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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-7 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. Please contact your customer service representative at **1.800.499.6927** or **www.gfcp.com**

STANDARD SIZES AND DR'S SHOWN IN BOLD PRINT.

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

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.

DESIGN-FLOW® | IPS HDPE PIPE

IRON PIPE SIZE PE4710 | HIGH DENSITY POLYETHYLENE PIPE

GEORG FISCHER CENTRAL PLASTICS AVAILABLE STANDARDS:

DESIGN-FLOW® M & I PE4710 HDPE ASTM F714/D3035 AWWAC901/C906 NSF-61

DESIGN-FLOW® FM Approved PE4710 HDPE FM1631

Part # 10014098 | September 2014

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 @ 65psi			DR 26 CLASS 80 WPR @ 80psi			DR 21 CLASS 100 WPR @ 100psi			DR 19 CLASS 110 WPR @ 110psi			DR 17 CLASS 130 WPR @ 130psi			DR 13.5 CLASS 160 WPR @ 160psi			DR 11 CLASS 200 WPR @ 200psi			DR 9 CLASS 250 WPR @ 250psi			DR 7 CLASS 335 WPR @ 335psi		
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	0.556	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 PP1TR-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-7 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. Please contact your customer service representative at **1.800.499.6927** or **www.gfcp.com**

STANDARD SIZES AND DR'S SHOWN IN BOLD PRINT.

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

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.