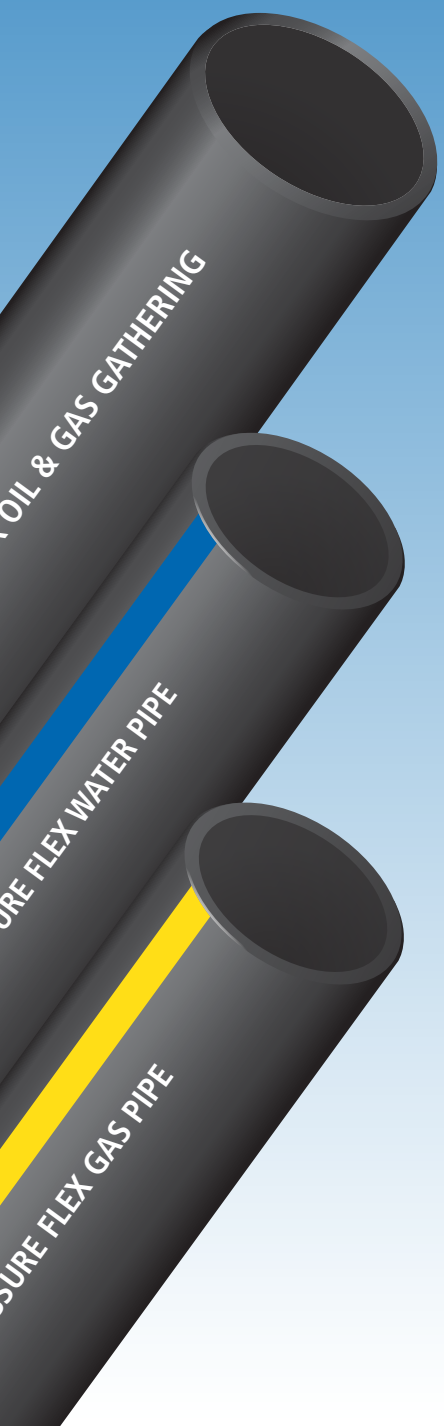
SPECIFICATIONS



Material Designation

PE 3408/3608 Cell Classification
345464 C or E per ASTM D 3350

Physical Properties	Test Method	Units	Standard	Typical(2)
Density	ASTM D 1505	g/cm³	>0.940-0.947	0.945
Melt Index Flow Rate(1)	ASTM D 1238	g/10min	<0.15	0.08
Flexural Modulus @ 2% Strain	ASTM D 790	PSI	110,000 to 160,000	125,000
Tensile Strength @ yield(3)	ASTM D 638	PSI	3,000-<3,500	3,250
Ultimate Elongation,(3)	ASTM D 638	%	>500	>500
SCG Resistance PENT (hours)	ASTM D 1473	HR	>100	>100
Carbon Black (UV Protection)	ASTM D 1603	%	2-% minimum	2.25%
Brittleness Temperature	ASTM D 746	°F	<-76	<-76
Pipe Properties				
Long-Term	ASTM D 2837			
Hydrostatic Strength	or PPI TR-3			
Nominal @ 73.4 °F	PSI	1600	1600	
Nominal @ 140 °F	PSI	800	800	

PE 4710 Cell Classification
445576 C or E per ASTM D 3350

Physical Properties	Test Method	Units	Standard	Typical (2)
Density	ASTM D 1505	g/cm³	>0.947-0.955	0.954
Melt Index Flow Rate (1)	ASTM D 1238	g/10min	<0.15	0.08
Flexural Modulus @ 2% Strain	ASTM D 790	PSI	110,000 to 160,000	150,000
Tensile Strength @ yield (3)	ASTM D 638	PSI	3,500-<4,000	3,600
Ultimate Elongation (3)	ASTM D 638	%	>500	>740
SCG Resistance PENT	ASTM D 1473	HR	>500	>10,000
Carbon Black (UV Protection)	ASTM D 1603	%	2-% minimum	2.25%
Brittleness Temperature	ASTM D 746	°F	<-76	<-76
Pipe Properties				
Long-Term	ASTM D 2837			
Hydrostatic Strength	or PPI TR-3			
Nominal @ 73.4 °F		PSI	1600	1600
Nominal @ 140 °F		PSI	1000	1000

Notes:
1. Test condition HLMI using 190° C/2.16 kg.
2. Typical listed values represent average laboratory test results. They are provided as guides only. They are not intended as specifications.
3. Test rate is 2 inches per minute.

PRESSURE FLEX OIL & GAS GATH

PRESSURE FLEX WATER

PRESSURE FLE

Water Gas Geothermal Irrigation

PE 3408/3608

	Pipe Size	IPS 3/4"	1"	1 1/4"	1 1/2"	2"	3"	4"	6"	8"	10"	12"	14"	16"	DIPS 4"	6"	8"	10"	12"	14"
	Nom. OD (in)	1.050	1.315	1.660	1.900	2.375	3.500	4.500	6.625	8.625	10.750	12.750	14.00	16.00	4.800	6.900	9.050	11.100	13.200	15.30
DR 7.0 (267 psi)	Min Wall (in)	0.150	0.188	0.237	0.271	0.339	0.500	0.643	0.946	1.232	1.536	1.821	2.000	2.286	0.686	0.986	1.293	1.586	1.886	2.186
	Avg ID (in)	0.732	0.917	1.158	1.325	1.656	2.440	3.138	4.619	6.013	7.495	8.889	9.760	11.155	3.347	4.811	6.310	7.739	9.203	10.667
	Weight (lbs/ft)	0.184	0.289	0.461	0.603	0.943	2.047	3.384	7.336	12.433	19.314	27.170	32.758	42.786	3.851	7.957	13.689	20.593	29.121	39.124
DR 7.3 (255 psi)	Min Wall (in)	0.144	0.180	0.227	0.260	0.325	0.479	0.616	0.908	1.182	1.473	1.747	1.918	2.192	0.658	0.945	1.240	1.521	1.808	2.096
	Avg ID (in)	0.723	0.934	1.178	1.349	1.686	2.484	3.194	4.702	6.121	7.629	9.048	9.935	11.354	3.407	4.897	6.422	7.877	9.367	10.857
	Weight (lbs/ft)	0.178	0.279	0.445	0.583	0.911	1.978	3.269	7.086	12.010	18.656	26.244	31.642	41.329	3.720	7.686	13.222	19.891	28.129	37.792
DR 9.0 (200 psi)	Min Wall (in)	0.117	0.146	0.184	0.211	0.264	0.389	0.500	0.736	0.958	1.194	1.417	1.556	1.778	0.533	0.767	1.006	1.233	1.467	1.700
	Avg ID (in)	0.803	1.006	1.269	1.453	1.816	2.676	3.440	5.065	6.594	8.218	9.747	10.703	12.232	3.670	5.275	6.919	8.486	10.091	11.696
	Weight (lbs/ft)	0.149	0.234	0.372	0.488	0.762	1.656	2.737	5.932	10.054	15.618	21.970	26.489	34.598	3.114	6.434	11.069	16.652	23.548	31.637
DR 11.0 (160 psi)	Min Wall (in)	0.095	0.120	0.151	0.173	0.216	0.318	0.409	0.602	0.784	0.977	1.159	1.273	1.455	0.436	0.627	0.823	1.009	1.200	1.391
	Avg ID (in)	0.848	1.062	1.341	1.534	1.918	2.826	3.633	5.349	6.963	8.679	10.293	11.302	12.917	3.875	5.571	7.306	8.961	10.656	12.352
	Weight (lbs/ft)	0.125	0.196	0.312	0.409	0.639	1.387	2.294	4.971	8.425	13.089	18.412	22.199	28.994	2.609	5.392	9.276	13.955	19.734	26.513
DR 13.5 (130 psi)	Min Wall (in)	0.078	0.097	0.123	0.141	0.176	0.259	0.333	0.491	0.639	0.796	0.944	1.037	1.185	0.356	0.511	0.670	0.822	0.978	1.133
	Avg ID (in)	0.886	1.109	1.400	1.602	2.003	2.951	3.794	5.585	7.271	9.062	10.748	11.802	13.488	4.047	5.817	7.629	9.357	11.128	12.898
	Weight (lbs/ft)	0.104	0.163	0.259	0.340	0.531	1.153	1.906	4.130	7.001	10.875	15.298	18.445	24.092	2.168	4.480	7.708	11.595	16.397	22.030
DR 15.5 (110 psi)	Min Wall (in)	0.068	0.085	0.107	0.123	0.153	0.226	0.290	0.427	0.556	0.694	0.823	0.903	1.302	0.310	0.445	0.584	0.716	0.852	0.987
	Avg ID (in)	0.907	1.136	1.433	1.641	2.051	3.022	3.885	5.719	7.446	9.280	11.007	12.086	13.812	4.144	5.957	7.813	9.582	11.395	13.208
	Weight (lbs/ft)	0.091	0.143	0.228	0.299	0.467	1.015	1.678	3.637	6.164	9.576	13.471	16.242	21.214	1.909	3.945	6.787	10.210	14.439	19.398
DR 17.0 (100 psi)	Min Wall (in)	0.062	0.077	0.098	0.112	0.140	0.206	0.265	0.390	0.507	0.632	0.750	0.824	0.941	0.282	0.406	0.532	0.653	0.776	0.900
	Avg ID (in)	0.920	1.152	1.453	1.664	2.079	3.064	3.939	5.799	7.550	9.410	11.160	12.255	14.005	4.202	6.040	7.922	9.716	11.554	13.392
	Weight (lbs/ft)	0.084	0.131	0.210	0.275	0.429	0.932	1.540	3.338	5.657	8.788	12.362	14.905	19.467	1.752	3.620	6.228	9.369	13.250	17.801
DR 21.0 (80 psi)	Min Wall (in)		0.063	0.079	0.090	0.113	0.167	0.214	0.315	0.411	0.512	0.607	0.667	0.762	0.229	0.329	0.431	0.529	0.629	0.729
	Avg ID (in)		1.183	1.493	1.709	2.136	3.147	4.046	5.957	7.755	9.665	11.463	12.587	14.385	4.316	6.204	8.137	9.980	11.868	13.756
	Weight (lbs/ft)		0.108	0.172	0.225	0.352	0.764	1.262	2.736	4.637	7.204	10.134	12.218	15.959	1.436	2.968	5.106	7.681	10.862	14.593
DR 26.0 (65 psi)	Min Wall (in)			0.064	0.073	0.091	0.135	0.173	0.255	0.332	0.413	0.490	0.538	0.615	0.185	0.265	0.348	0.427	0.508	0.588
	Avg ID (in)			1.525	1.746	2.182	3.215	4.134	6.085	7.922	9.874	11.711	12.859	14.696	4.409	6.338	8.313	10.195	12.124	14.053
	Weight (lbs/ft)			0.140	0.184	0.287	0.623	1.030	2.233	3.784	5.878	8.269	9.970	13.022	1.172	2.422	4.166	6.267	8.863	11.907
DR 32.5 (50 psi)	Min Wall (in)					0.073	0.108	0.138	0.204	0.265	0.331	0.392	0.431	0.492	0.148	0.212	0.278	0.342	0.406	0.471
	Avg ID (in)					2.221	3.272	4.207	6.193	8.063	10.049	11.919	13.087	14.957	4.487	6.450	8.460	10.376	12.339	14.302
	Weight (lbs/ft)					0.231	0.503	0.831	1.801	3.053	4.742	6.671	8.044	10.506	0.946	1.954	3.361	5.056	7.151	9.607

Pressure Ratings are calculated based on the HDS for PE 3608 resin at 73° F as listed in TR-4 using a design factor of 0.50 for water.
Changes to temperature, chemical and envoronmental conditions may require adiditional design factor adjustments to be made.

Water Gas Geothermal Irrigation

PE 4710

		IPS													DIPS					
	Pipe Size	3/4"	1"	1 1/4"	1 1/2"	2"	3"	4"	6"	8"	10"	12"	14"	16"	4"	6"	8"	10"	12"	14"
	Nom. OD (in)	1.050	1.315	1.660	1.900	2.375	3.500	4.500	6.625	8.625	10.750	12.750	14.00	16.00	4.800	6.900	9.050	11.100	13.200	15.30
DR 7.0 (335 psi)	Min Wall (in)	0.150	0.188	0.237	0.271	0.339	0.500	0.643	0.946	1.232	1.536	1.821	2.000	2.286	0.686	0.986	1.293	1.586	1.886	2.186
	Avg ID (in)	0.732	0.917	1.158	1.325	1.656	2.440	3.138	4.619	6.013	7.495	8.889	9.760	11.155	3.347	4.811	6.310	7.739	9.203	10.667
	Weight (lbs/ft)	0.185	0.291	0.463	0.607	0.948	2.058	3.402	7.374	12.498	19.416	27.312	32.930	43.010	3.871	7.999	13.760	20.700	29.274	39.329
DR 7.3 (320 psi)	Min Wall (in)	0.144	0.180	0.227	0.260	0.325	0.479	0.616	0.908	1.182	1.473	1.747	1.918	2.192	0.658	0.945	1.240	1.521	1.808	2.096
	Avg ID (in)	0.746	0.934	1.178	1.349	1.686	2.484	3.194	4.702	6.121	7.629	9.048	9.935	11.354	3.407	4.897	6.422	7.877	9.367	10.857
	Weight (lbs/ft)	0.179	0.281	0.447	0.586	0.915	1.988	3.286	7.123	12.073	18.754	26.382	31.808	41.545	3.739	7.726	13.292	19.995	28.277	37.989
DR 9.0 (255 psi)	Min Wall (in)	0.117	0.146	0.184	0.211	0.264	0.389	0.500	0.736	0.958	1.194	1.417	1.556	1.778	0.533	0.767	1.006	1.233	1.467	1.700
	Avg ID (in)	0.803	1.006	1.269	1.453	1.816	2.676	3.440	5.065	6.594	8.218	9.747	10.703	12.232	3.670	5.275	6.919	8.486	10.091	11.696
	Weight (lbs/ft)	0.150	0.235	0.374	0.490	0.766	1.664	2.751	5.963	10.106	15.700	22.085	26.628	34.779	3.130	6.468	11.127	16.739	23.671	31.802
DR 11.0 (200 psi)	Min Wall (in)	0.095	0.120	0.151	0.173	0.216	0.318	0.409	0.602	0.784	0.977	1.159	1.273	1.455	0.436	0.627	0.823	1.009	1.200	1.391
	Avg ID (in)	0.848	1.062	1.341	1.534	1.918	2.826	3.633	5.349	6.963	8.679	10.293	11.302	12.917	3.875	5.571	7.306	8.961	10.656	12.352
	Weight (lbs/ft)	0.126	0.197	0.314	0.411	0.642	1.395	2.306	4.997	8.470	13.157	18.508	22.315	29.146	2.623	5.421	9.325	14.028	19.838	26.652
DR 13.5 (160 psi)	Min Wall (in)	0.078	0.097	0.123	0.141	0.176	0.259	0.333	0.491	0.639	0.796	0.944	1.037	1.185	0.356	0.511	0.670	0.822	0.978	1.133
	Avg ID (in)	0.886	1.109	1.400	1.602	2.003	2.951	3.794	5.585	7.271	9.062	10.748	11.802	13.488	4.047	5.817	7.629	9.357	11.128	12.898
	Weight (lbs/ft)	0.104	0.164	0.261	0.342	0.534	1.159	1.916	4.152	7.037	10.932	15.379	18.542	24.218	2.180	4.504	7.748	11.656	16.483	22.145
DR 15.5 (135 psi)	Min Wall (in)	0.068	0.085	0.107	0.123	0.153	0.226	0.290	0.427	0.556	0.694	0.823	0.903	1.032	0.310	0.445	0.584	0.716	0.852	0.987
	Avg ID (in)	0.907	1.136	1.433	1.641	2.051	3.022	3.885	5.719	7.446	9.280	11.007	12.086	13.812	4.144	5.957	7.813	9.582	11.395	13.208
	Weight (lbs/ft)	0.092	0.144	0.230	0.301	0.470	1.020	1.687	3.656	6.197	9.626	13.541	16.327	21.325	1.919	3.966	6.822	10.263	14.514	19.500
DR 17.0 (125 psi)	Min Wall (in)	0.062	0.077	0.098	0.112	0.140	0.206	0.265	0.390	0.507	0.632	0.750	0.824	0.941	0.282	0.406	0.532	0.653	0.776	0.900
	Avg ID (in)	0.920	1.152	1.453	1.664	2.079	3.064	3.939	5.799	7.550	9.410	11.160	12.255	14.005	4.202	6.040	7.922	9.716	11.554	13.392
	Weight (lbs/ft)	0.084	0.132	0.211	0.276	0.431	0.936	1.548	3.355	5.687	8.834	12.427	14.983	19.569	1.761	3.639	6.261	9.418	13.319	17.894
DR 21.0 (100 psi)	Min Wall (in)		0.063	0.079	0.090	0.113	0.167	0.214	0.315	0.411	0.512	0.607	0.667	0.762	0.229	0.329	0.431	0.529	0.629	0.729
	Avg ID (in)		1.183	1.493	1.709	2.136	3.147	4.046	5.957	7.755	9.665	11.463	12.587	14.385	4.316	6.204	8.137	9.980	11.868	13.756
	Weight (lbs/ft)		0.108	0.173	0.226	0.353	0.768	1.269	2.750	4.662	7.242	10.187	12.282	16.042	1.444	2.984	5.132	7.721	10.919	14.669
DR 26.0 (80 psi)	Min Wall (in)			0.064	0.073	0.091	0.135	0.173	0.255	0.332	0.413	0.490	0.538	0.615	0.185	0.265	0.348	0.427	0.508	0.588
	Avg ID (in)			1.525	1.746	2.182	3.215	4.134	6.085	7.922	9.874	11.711	12.859	14.696	4.409	6.338	8.313	10.195	12.124	14.053
	Weight (lbs/ft)			0.141	0.185	0.288	0.626	1.035	2.244	3.804	5.909	8.312	10.022	13.090	1.178	2.434	4.188	6.300	8.909	11.969
DR 32.5 (65 psi)	Min Wall (in)					0.073	0.108	0.138	0.204	0.265	0.331	0.392	0.431	0.492	0.148	0.212	0.278	0.342	0.406	0.471
	Avg ID (in)					2.221	3.272	4.207	6.193	8.063	10.049	11.919	13.087	14.957	4.487	6.450	8.460	10.376	12.339	14.302
	Weight (lbs/ft)					0.233	0.505	0.835	1.811	3.069	4.767	6.706	8.086	10.561	0.950	1.964	3.379	5.083	7.188	9.657

Pressure Ratings are calculated based on the HDS for PE 4710 resin at 73° F as listed in TR-4 using a design factor of 0.63 for water.
Changes to temperature, chemical and envoronmental conditions may require adiditional design factor adjustments to be made.

A-D TECHNOLOGIES ARNCO dura-line

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