

# PE 4710 IPS – MUNICIPAL & INDUSTRIAL PIPE

## Designed for: Municipal Water and Industrial Applications

- Iron Pipe Size - HDPE
- Black Pipe with three evenly spaced Blue stripes



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### Specifications:

- PE 4710 Resin formulation listed in PPI TR4
- Hydrostatic Design Basis: 1600 psi @ 73° F, 1000 psi @ 140° F
- Cell Classification per ASTM D3350 = 445574C and 445576C CC3
- ¾" – 3" pipe: ASTM D3035 – SDR 7, 9, 11, 13.5, 15.5, 17, 21
- ANSI/AWWA C901-17: (C901-17 only SDR 9)
- 4" – 24" pipe: ASTM F714 – SDR 7, 9, 11, 13.5, 15.5, 17, 21, 26, 32.5
- ANSI/AWWA C906-15: AWWA/ANSI allows all DR's listed
- NSF/ANSI Standards: 14 and 61.

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### Pressure Ratings:

If temperatures exceed 80°F, contact Charter Plastics for a working pressure de-rating.

### Joining:

Charter Plastics Blue Stripe IPS pipe is based on outside diameter. Heat fusion is the preferred method for joining this pipe. All personnel conducting heat fusions should be experienced and follow guidelines published by the pipe manufacturer or by PPI in TR 33.

IPS may also be joined with OD Mechanical fittings designed for pipe made to ASTM F714 or ASTM D3035 Standards. A stiffener should be inserted when using OD Compression type fittings on pipe < 2"

Never use any lubricant on the pipe. Do not expose the pipe to direct flame.

### Installing:

All Charter Plastics IPS pipe can be direct buried and can be installed with a vibrating plow, pulled or horizontally directionally drilled. Buried pipe must be supported by proper embedment material like sand or gravel. Refer to PPI's "Handbook of Polyethylene Pipe" and follow as local, state or federal guidelines.

To safely handle and store polyethylene, refer to PPI's Material Handling Guide.

**\*This pipe is not designed for use inside the building or for hot water applications.**

### Disinfection:

New water mains and service lines should be disinfected according to AWWA C651. The disinfection should take place after the initial flushing and pressure testing. Prolonged exposure or concentrated levels of disinfection chemicals may cause damage to the inside diameter of the pipe. The disinfection chemicals should never contain more than 12% active chlorine. Charter Plastics recommends the test duration not exceed 24 hours and that upon completion, the system be thoroughly flushed with fresh water.

### Testing:

All pipe should be hydrostatically tested after installation.

**Pneumatic testing is not recommended.**

Refer to PPI's Handbook of Polyethylene Pipe for Guidelines.



Pipe for a New World.

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PIPE SIZE	O.D. ACTUAL		DR 7.0 333 PSI	DR 9 PC 250	DR 11 200 PSI	DR 13.5 160 PSI	DR 15.5 138 PSI	DR 17 125 PSI	DR 21 100 PSI
.75"	1.050	MIN WALL	.150	.117	.095				
		NOM. ID.	.732	.796	.840	N/A	N/A	N/A	N/A
		WEIGHT PER FT	.185	.153	.130				
1"	1.315	MIN WALL	.188	.146	.120				
		NOM. ID.	.917	1.003	1.055	N/A	N/A	N/A	N/A
		WEIGHT PER FT	.291	.236	.201				
1.25"	1.660	MIN WALL	.271	.184	.151	.123	.107	.098	
		NOM. ID.	1.157	1.270	1.338	1.394	1.426	1.444	N/A
		WEIGHT PER FT	.463	.374	.316	.266	.236	.219	
1.5"	1.900	MIN WALL	.271	.211	.173	.141	.123	.112	
		NOM. ID.	1.324	1.453	1.533	1.598	1.634	1.656	N/A
		WEIGHT PER FT	.607	.490	.412	.345	.307	.284	
2"	2.375	MIN WALL	.339	.264	.216	.176	.153	.140	
		NOM. ID.	1.656	1.815	1.917	2.002	2.049	2.075	N/A
		WEIGHT PER FT	.948	.767	.643	.534	.471	.436	
2.5" Straight	2.875	MIN WALL			.261			.169	
		NOM. ID.	N/A	N/A	2.322	N/A	N/A	2.517	N/A
		WEIGHT PER FT			.935			.632	
3"	3.500	MIN WALL	.500	.389	.318	.259	.226	.206	.167
		NOM. ID.	2.440	2.675	2.826	2.951	3.021	3.063	3.146
		WEIGHT PER FT	2.058	1.665	1.394	1.158	1.021	.937	.769

Weight calculations per PPI TR7

ANSI/AWWA  
C901-17  
SDR 9 Only

Charter Plastics

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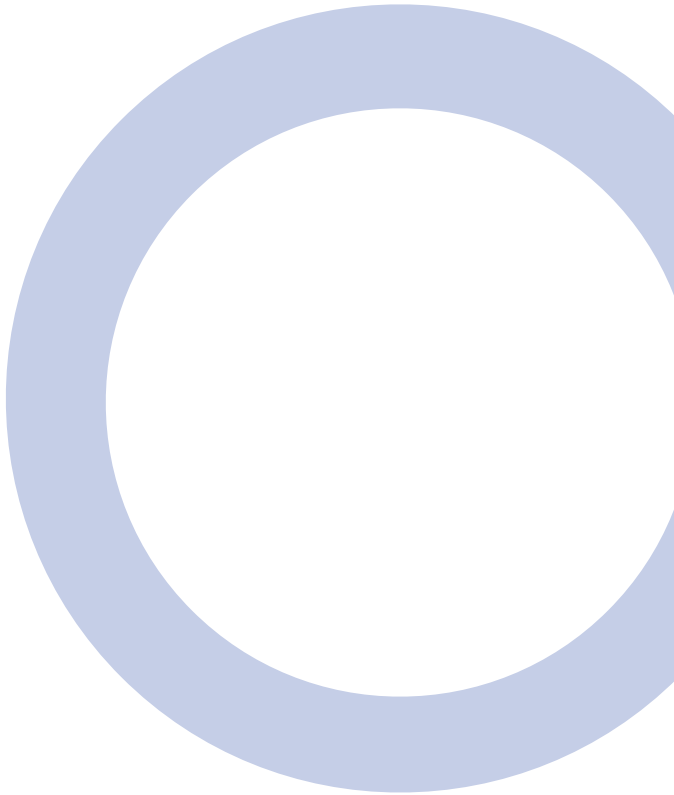


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4"	4.500	MIN WALL	.643	.500	.409	.333	.290	.265	.214		
		NOM. ID.	3.137	3.440	3.633	3.794	3.885	3.938	4.046	N/A	N/A
		WEIGHT PER FT	3.402	2.751	2.305	1.914	1.685	1.550	1.267		
5"	5.563	MIN WALL		.618	.506	.412		.327	.265		
		NOM. ID.	N/A	4.259	4.490	4.690	N/A	4.870	5.001	N/A	N/A
		WEIGHT PER FT		4.118	3.270	2.928		2.366	1.941		
6"	6.625	MIN WALL	.946	.736	.602	.491	.427	.390	.315	.255	
		NOM. ID.	4.619	5.065	5.349	5.584	5.720	5.798	5.957	6.085	N/A
		WEIGHT PER FT	7.374	5.962	4.995	4.154	3.653	3.357	2.746	2.244	
7"	7.125	MIN WALL						.420	.340	.274	
		NOM. ID.	N/A	N/A	N/A	N/A	N/A	6.236	6.404	6.545	N/A
		WEIGHT PER FT						3.881	3.188	2.578	
8"	8.625	MIN WALL	1.232	.958	.784	.639	.556	.507	.411	.332	.265
		NOM. ID.	6.013	6.594	6.963	7.270	7.446	7.550	7.754	7.922	8.063
		WEIGHT PER FT	12.498	10.103	8.469	7.039	6.192	5.683	4.665	3.804	3.065
10"	10.750	MIN WALL	1.536	1.194	.977	.796	.694	.632	.512	.413	.331
		NOM. ID.	7.494	8.219	8.679	9.062	9.279	9.410	9.665	9.873	10.048
		WEIGHT PER FT	19.415	15.695	13.154	10.929	9.632	8.829	7.243	5.909	4.771
12"	12.750	MIN WALL	1.821	1.417	1.159	.944	.823	.750	.607	.490	.416
		NOM. ID.	8.889	9.746	10.293	10.749	11.005	11.160	11.463	11.710	11.919
		WEIGHT PER FT	27.312	22.089	18.507	15.372	13.548	12.427	10.185	8.312	6.701
14"	14	MIN WALL		1.556	1.273	1.037	.903	.824	.667	.538	.457
		NOM. ID.	N/A	10.701	11.301	11.802	12.806	12.253	12.586	12.858	13.086
		WEIGHT PER FT		26.634	22.319	18.541	16.323	14.991	12.288	10.022	8.090
16"	16	MIN WALL		1.778	1.455	1.185	1.032	.941	.762	.615	.492
		NOM. ID.	N/A	12.231	12.915	13.488	13.812	14.005	14.385	14.695	14.957
		WEIGHT PER FT		34.783	29.154	24.214	21.320	19.566	16.044	13.090	10.554
18"	18	MIN WALL		2.000	1.636	1.333	1.161	1.059	.857	.692	.554
		NOM. ID.	N/A	13.760	14.532	15.174	15.539	15.755	16.183	16.532	16.826
		WEIGHT PER FT		44.017	36.881	30.644	26.983	24.771	20.300	16.567	13.370
20"	20	MIN WALL		2.222	1.818	1.481	1.290	1.176	.952	.769	.615
		NOM. ID.	N/A	15.289	16.146	16.860	17.265	17.507	17.982	18.369	18.696
		WEIGHT PER FT		54.337	45.537	37.829	33.312	30.565	25.057	20.453	16.491
22"	22	MIN WALL			2.00	1.630	1.419	1.294	1.048	.846	.677
		NOM. ID.	N/A	N/A	17.760	18.544	18.992	19.257	19.778	20.206	20.565
		WEIGHT PER FT			55.105	45.796	40.308	36.995	30.340	24.748	19.969
24"	24	MIN WALL		2.667	2.182	1.778	1.548	1.412	1.143	.923	.738
		NOM. ID.	N/A	18.346	19.374	20.231	20.718	21.007	21.577	22.043	22.435
		WEIGHT PER FT		78.261	65.584	54.496	47.970	44.037	36.100	29.452	23.747



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