



MODERN

POLYMER PIPE & EXTRUSIONS



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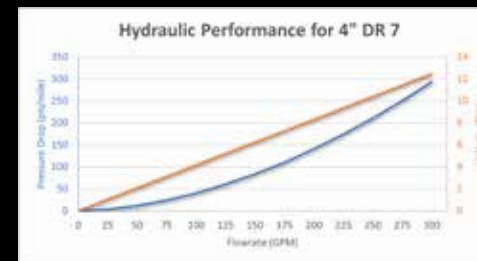
ABOUT MODERN POLYMER PIPE AND EXTRUSIONS

Modern Polymer Pipe and Extrusions was founded in 2014, initially only capable of producing 2" – 6" diameter HDPE pipe. After almost a decade of experience, we have expanded our catalog to produce up to 24" diameter HDPE pipe. Along with developing a larger catalog, we have also been able to focus on improving the quality of our pipe. We are certified by the NSF that our pipe meets AWWA C901 and AWWA C906 requirements to transport potable water safely.

Modern Polymer Pipe and Extrusions is part of The Modern Group, a strong family of industrial equipment companies serving a broad range of industries including oil and gas, agriculture, power generation, storage, and transportation.

HDPE (HIGH DENSITY POLYETHYLENE)

HDPE is a strong, light-weight thermoplastic used to manufacture pipe for liquid and gas transfer. We use PE4710, an improved, high-performance resin that offers stronger physical properties allowing the pipe to handle high internal pressures. Due to its unique performance properties, HDPE has a broad range of applications and a 100-year service life. At Modern Polymer Pipe and Extrusions, we can help your company meet your HDPE needs.



HYDRAULIC PERFORMANCE 4" IPS PIPE

VISIT OUR WEBSITE TO VIEW AND DOWNLOAD PERFORMANCE DATA ON ALL PIPE OFFERINGS.

Avg OD, in	DR	7	9	11	13.5	17	21
4.5	Pressure Rating	335 psi	250 psi	200 psi	160 psi	125 psi	100 psi
	Min wall, in	0.643	0.500	0.409	0.333	0.265	0.214
	Avg ID, in	3.137	3.440	3.633	3.793	3.939	4.046
	Weight, lb/ft	3.401	2.750	2.304	1.915	1.547	1.268

STANDARDS FEATURES

Pipe Manufacturing Standards

- ASTM D3035
- ASTM F714
- ASTM F2619
- NSF/ ANSI 14
- FM 1613

Pipe Resin Standards

- ASTM D3350

Water Works Standards

- AWWA C901
- AWWA C906
- NSF/ ANSI 61
- CC3 Oxidative Resistance Classification

Available in sizes from 2" – 24" IPS with DR 7 – 21

- 2" – 6", 500/1000/2000 ft coils
- 2" – 24", 20/40/50 ft sticks



Temperature Deratings	
Temperature	Multiplier, F _T
40	1.22
50	1.15
60	1.08
70	1.02
73	1.00
80	0.96
90	0.90
100	0.84
110	0.78
120	0.73
130	0.68

APPLICATIONS



WE'VE GOT DECADES OF EXPERIENCE

- Energy
- EPC
- Municipal
- Water/ Sewer
- Waterworks
- Mining
- Landfill
- Farm and Agriculture
- Golf and Irrigation

THE TOTAL PIPING SOLUTION.



Polyethylene pipe is connected through heat fusion, a technique that partially melts the pipe to then be joined to another section or fitting. The ends of the pipes to be joined are trimmed flush then placed against a heater plate. Once the ends begin to melt, the heater plate is removed, and the ends are brought together. Once cooled, the new formed joint is stronger than the pipe itself and creates a leak-free connection that is self-restrained. HDPE can be installed in several ways including above ground, direct burial, slip lining, pipe-bursting, and directional-drilling as well as be used in open-cut trenchless applications.



WHY CHOOSE HDPE?

- Economical
- Zero Leak Rate
- Hydraulically Smooth
- Long Design Life
- Easy to Install
- Corrosion Resistant
- Abrasion Resistant
- Freeze Resistant
- Impact Resistant
- Surge Resistant
- Inert
- Lightweight
- Flexible/ Coil-able
- 100-year service life
- Listed and Approved
- CC3 Oxidative Resistance Classification



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HDPE PIPE CHART



PE4710 Pressure Class*			400 psi	335 psi	250 psi	200 psi	160 psi	125 psi	100 psi
Pipe Size	Avg OD	DR	6	7	9	11	13.5	17	21
2" IPS	2.375	Min Wall, in	0.396	0.339	0.264	0.216	0.176	0.140	0.113
		Avg ID, in	1.536	1.656	1.816	1.917	2.002	2.079	2.135
		Weight, lb/ft	1.072	0.947	0.766	0.642	0.533	0.431	0.353
3" IPS	3.5	Min Wall, in	0.583	0.500	0.389	0.318	0.259	0.206	0.167
		Avg ID, in	2.263	2.440	2.676	2.825	2.950	3.064	3.147
		Weight, lb/ft	2.329	2.057	1.663	1.394	1.158	0.936	0.767
4" IPS	4.5	Min Wall, in	0.750	0.643	0.500	0.409	0.333	0.265	0.214
		Avg ID, in	2.910	3.137	3.440	3.633	3.793	3.939	4.046
		Weight, lb/ft	3.849	3.401	2.750	2.304	1.915	1.547	1.268
6" IPS	6.625	Min Wall, in	1.104	0.946	0.736	0.602	0.491	0.390	0.315
		Avg ID, in	4.284	4.619	5.064	5.348	5.585	5.799	5.956
		Weight, lb/ft	8.343	7.371	5.960	4.995	4.150	3.354	2.749
8" IPS	8.625	Min Wall, in	1.438	1.232	0.958	0.784	0.639	0.507	0.411
		Avg ID, in	5.578	6.013	6.593	6.963	7.271	7.549	7.754
		Weight, lb/ft	14.141	12.493	10.102	8.466	7.034	5.684	4.660
10" IPS	10.75	Min Wall, in	1.792	1.536	1.194	0.977	0.796	0.632	0.512
		Avg ID, in	6.952	7.494	8.218	8.678	9.062	9.409	9.665
		Weight, lb/ft	21.968	19.407	15.693	13.151	10.927	8.830	7.239
12" IPS	12.75	Min Wall, in	2.125	1.821	1.417	1.159	0.944	0.750	0.607
		Avg ID, in	8.245	8.889	9.747	10.293	10.748	11.160	11.463
		Weight, lb/ft	30.903	27.300	22.075	18.500	15.372	12.421	10.183
14" IPS	14	Min Wall, in	2.333	2.000	1.556	1.273	1.037	0.824	0.667
		Avg ID, in	9.053	9.760	10.702	11.302	11.801	12.254	12.587
		Weight, lb/ft	37.259	32.915	26.616	22.305	18.534	14.976	12.277
16" IPS	16	Min Wall, in	2.667	2.286	1.778	1.455	1.185	0.941	0.762
		Avg ID, in	10.347	11.154	12.231	12.916	13.487	14.005	14.385
		Weight, lb/ft	48.665	42.991	34.764	29.133	24.207	19.560	16.035
18" IPS	18	Min Wall, in	3.000	2.571	2.000	1.636	1.333	1.059	0.857
		Avg ID, in	11.640	12.549	13.760	14.531	15.173	15.755	16.183
		Weight, lb/ft	61.591	54.411	43.998	36.872	30.637	24.756	20.295
20" IPS	20	Min Wall, in	3.333	2.857	2.222	1.818	1.481	1.176	0.952
		Avg ID, in	12.933	13.943	15.289	16.145	16.859	17.506	17.981
		Weight, lb/ft	76.038	67.174	54.318	45.521	37.824	30.563	25.055
24" IPS	24	Min Wall, in		3.429	2.667	2.182	1.778	1.412	1.143
		Avg ID, in		16.731	18.347	19.375	20.231	21.007	21.577
		Weight, lb/ft		96.730	78.218	65.550	54.466	44.011	36.079
Legend			Potable Water Use	Sewage Water Use	Reclaimed Water Use				
*Pressure Ratings based on water at 73°F.									

HDPE STICK TRUCK LOAD CHART



Pipe Size	DR	Sticks per Bundle	50 ft Sticks			40 ft Sticks			20 ft Sticks		
			Bundles per Truck	Sticks per Truck	Footage per Truck	Bundles per Truck	Sticks per Truck	Footage per Truck	Bundles per Truck	Sticks per Truck	Footage per Truck
2" IPS	7	50	20	1,000	50,000	24	1,200	48,000	48	2,400	48,000
	9 - 21		24	1,200	60,000						
3" IPS	7	50	8	400	20,000	11	550	22,000	22	1,100	22,000
	9		10	500	25,000						
	11		13	650	32,500						
	13.5 - 21		14	700	35,000						
4" IPS	7	19	14	266	13,300	18	342	13,680	36	684	13,680
	9		18	342	17,100						
	11		21	399	19,950						
	13.5 - 21		22	418	20,900						
6" IPS	7	13	10	130	6,500	12	156	6,240	24	312	6,240
	9		12	156	7,800	14	182	7,280	28	364	7,280
	11 - 21		14	182	9,100						
8" IPS	7	9	8	76	3,800	10	90	3,600	20	180	3,600
	9		10	90	4,500	12	108	4,320	24	216	4,320
	11 - 21		12	108	5,400						
10" IPS	7	5/4	5	48	2,400	6	54	2,160	12	108	2,160
	9		6	54	2,700	8	72	2,880	16	144	2,880
	11 - 21		8	72	3,600						
12" IPS	7	4	4	34	1,700	5	40	1,600	10	80	1,600
	9		5	40	2,000	6	52	2,080	13	108	2,160
	11		6	48	2,400	7	56	2,240	14	112	2,240
	13.5 - 21		7	56	2,800						
14" IPS	7	4/3	4	28	1,400	5	35	1,400	10	70	1,400
	9		5	35	1,750	6	42	1,680	12	84	1,680
	11 - 21		6	42	2,100						
16" IPS	7	3	7	21	1,050	8	24	960	16	48	960
	9		8	24	1,200	11	33	1,320	22	66	1,320
	11		10	32	1,600	12	36	1,440	24	72	1,440
	13.5 - 21		12	36	1,800						
18" IPS	7	3/2	4	17	850	4	20	800	8	40	800
	9		4	20	1,000	5	25	1,000	10	50	1,000
	11-21		5	25	1,250						
20" IPS	7	3/2	2	14	700	3	15	600	6	30	600
	9		3	17	850	4	20	800	8	40	800
	11-21		4	20	1,000						
24" IPS	7	2	2	8	400	3	12	480	6	24	480
	9		3	12	600						
	11		3	14	700	4	16	640	8	32	640
	13.5-21		4	16	800						

HDPE COIL TRUCK LOAD CHART



Pipe Size	DR	48 - 50' Truck				53' Truck		
		Coil Size	Dimensions	Coils per Truck	Footage per Truck	Coil Size	Coils per Truck	Footage per Truck
2" IPS	7 - 13.5	2000'	H-80" W-44"	16	32,000	500'	56	28,000
		500'	H-80" W-13.5"	49	24,500			
3" IPS	7 - 13.5	1000'	H-96" W-45"	13	13,000	500'	26	13,000
		500'	H-96" W-23"	24	12,000			
4" IPS	7 - 13.5	800'	H-102" W-45"	12	9,600	500'	18	9,000
		500'	H-102" W-29"	18	9,000			
6" IPS	7 - 13.5	500'	H-120" W-48"	6	3,000	500'	8	4,000





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3005B PASADENA FREEWAY

PASADENA, TEXAS 77503

713-475-6155

MODERNPOLYMERPIPE.COM

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