

# High Density Polyethylene 4710 Black Pipe

**PE 4710**  
ASTM F2619

**PE 4710**  
API 15LE

Physical Properties	Nominal Value	Test Method
Density	0.960 g/cm <sup>3</sup>	ASTM D1505
Melt Index(MI)190° C/21.6 Kg	0.07 g/10min	ASTM D1238
High Load Melt Index (190° C/21.6 Kg)	7-16 g/10min	ASTM D1238
SCG Resistance (PENT)	500 Hours	ASTM F1473
Tensile Stress @ Yield	3,500 Psi	ASTM D638
Tensile Stress @ Break	5,000 Psi	ASTM D638
Elongation @ Break	>500%	ASTM D638
Flexural Modulus (2% secant)	150,000 Psi	ASTM D790
Brittleness Temperature	< -103 °F	ASTM D746
Hardness	62 Shore D	ASTM D2240
Vicat Softening Temperature	256 °F	ASTM D1525
Thermal Expansion Coefficient	1.0x 10 <sup>-4</sup> in/in/°F	ASTM D696

  

Applications	DR	Operating Temperature			
		73°F	100°F	120°F	140°F
Pressure rating for water and dry natural gas gathering service	7 9 11	335 250 200	260 195 155	210 158 126	167 125 100
Pressure rating for crude oil, produced water, and wet gas	7 9 11	165 125 100	130 98 78	105 79 63	83 53 50

Nominal Pipe Sizes		DR 7			DR 9			DR 11			DR 17		
IPS Size	Nominal OD (in)	Min Wall	ID.	Wt/Ft									
2	2.375	0.339	1.656	0.948	0.264	1.816	0.767	0.216	1.917	0.643	0.140	2.079	0.431
3	3.500	0.500	2.440	2.058	0.389	2.676	1.663	0.318	2.825	1.394	0.206	3.064	0.935
4	4.500	0.643	3.137	3.400	0.500	3.440	2.751	0.409	3.633	2.307	0.265	3.939	1.550
6	6.625	0.946	4.619	7.373	0.736	5.064	5.961	0.602	5.348	4.994	0.390	5.799	3.354
8	8.625	1.232	6.013	12.50	0.958	6.593	10.11	0.784	6.983	8.468	0.507	7.549	5.689
10	10.75	1.536	7.494	19.42	1.194	8.218	15.70	0.977	8.678	13.16	0.632	9.409	8.830
12	12.75	1.821	8.889	27.32	1.417	9.747	22.09	1.159	10.29	18.51	0.750	11.16	12.43
14	14.00	2.000	9.760	32.93	1.556	10.70	26.63	1.273	11.30	22.31	0.824	12.25	14.98

The listed pressure ratings are based on PE4710 materials with 1,000 psi HDS in water environment at 73 F. Maximum design temperature is 140 F. Wt/Ft is based on the maximum dimension tolerances of the pipe.

We are currently offering **DR7, DR9, and DR11** in IPS diameters of **2,3, and 4** inches in **500 ft. rolls** and **2 to 14** inches in **40 or 50 ft. joints**. We can use client owned pipe reels as well.

