High Density Polyethylene Pipe

Fabco Plastics is the leading Canadian supplier of industrial plastic pipe including HDPE. Our dedicated and knowledgeable sales staff can provide high quality technical information and accurate project quotations on a timely basis. Fabco provides HDPE pipe to 63", custom fabricated butt fusion fittings, butt fusion equipment and easy to use electrofusion fittings to 12".

The standard length of HDPE pipe is 50 feet, in sizes above 2" in diameter with longer lengths available on request. Coiled pipe is available in diameters up to 3" and is available in 250 and 500 foot lengths. Larger pipe sizes and coil lengths are available on special request.

Features:

HDPE Pipe is Leak Proof: HDPE pipe can be joined by thermal fusion to form a joint that is as strong as the pipe itself and is leak free. Thermal fusion eliminates potential leak points every 8-20 feet commonly found with Concrete, PVC and Ductile Iron pipe. Leak proof joints also eliminate infiltration and exfiltration problems experienced with other pipe joining methods. Since fused joints are self-restraining, costly thrust restraints or thrust blocks are not required.

HDPE Pipe is Corrosion and Chemical Resistant: HDPE pipe will not corrode, tuberculate or support biological growth. It is the material of choice in harsh chemical environments. HDPE pipe has a smooth ID and maintains its flow capability over time - Hazen Williams C Factor remains 150, even after years of use.

HDPE Pipe is Flexible and Fatigue Resistant: HDPE pipe can be bent to a radius 25 times the nominal pipe diameter. This can eliminate many fittings required for directional changes compared to piping systems made from other materials. In addition, the flexibility of HDPE pipe makes it well suited for dynamic soils and areas prone to earthquake. HDPE pipe for pressure applications can accept repetitive pressure surges that exceed the static pressure rating of the pipe.

HDPE Pipe is Lightweight and Impact Resistant: HDPE pipe is much easier to handle and install than heavier, rigid metallic or concrete pipe, allowing for cost advantages in the construction process. It is structurally better able to withstand an impact than other pipe materials, especially in cold weather installations when other pipes like PVC are prone to cracks and breaks.

HDPE Pipe is Easy to Install: Flexibility and leak free joints allow for unique and cost effective methods of installation of HDPE pipe that the rigid Concrete, PVC and Ductile Iron pipes can't use. These alternate installation methods (Horizontal Directional Drilling, Pipe Bursting, Sliplining, Plow and Plant, Submerged or Floating Pipe) can save considerable time and money in most applications.

HDPE Pipe is Cost Effective and Permanent: HDPE pipe is cost effective and has long term cost advantages due to its physical properties, leak free joints and reduced maintenance costs. The Plastics Pipe Institute estimates the service life for HDPE pipe to conservatively be 50-100 years.

Applications:

Water pressure pipes for municipal and industrial transmission systems such as:

- potable water
- sewer
- drain
- mining
- irrigation
- slip lining
- reclaimed water

HDPE Pipe

PE 4710 Resin Specifications

Materials:
HDPE pressure pipe is manufactured with premium, highly engineered PE4710 resin that provides maximum performance benefits to service today's municipal and industrial water needs. The PE4710 material conforms to ASTM D3350 with the cell classification of 445574C/E and is listed with the Plastic Pipe Institute's (PPI) TR4. It is formulated with carbon black and/or ultraviolet stabilizer for maximum protection against UV rays for added assurance.

		DR 7 (333 PSI)			DR 7.3 (318 PSI)			DR9 (250 PSI)			DR11 (200 PSI)		
NOMINAL PIPE SIZE	AVERAGE OUTSIDE DIAMETER	MIN WALL THICKNESS	AVERAGE INSIDE DIAMETER	AVERAGE WEIGHT (LBS/FT)	MIN WALL THICKNESS	AVERAGE INSIDE DIAMETER	AVERAGE WEIGHT (LBS/FT)	MIN WALL THICKNESS	AVERAGE INSIDE DIAMETER	AVERAGE WEIGHT (LBS/FT)	MIN WALL THICKNESS	AVERAGE INSIDE DIAMETER	AVERAGE WEIGHT (LBS/FT)
1/2	0.84	0.12	0.59	0.12	0.115	0.6	0.11	0.093	0.64	0.1	0.076	0.68	0.08
3/4	1.05	0.15	0.73	0.19	0.144	0.75	0.18	0.117	0.8	0.15	0.095	0.85	0.12
1	1.315	0.188	0.92	0.29	0.18	0.93	0.28	0.146	1.01	0.23	0.12	1.06	0.2
2	2.375	0.339	1.66	0.95	0.325	1.69	0.91	0.264	1.82	0.77	0.216	1.92	0.64
3	3.5	0.5	2.44	2.06	0.479	2.48	1.98	0.389	2.68	1.66	0.318	2.83	1.39
4	4.5	0.643	3.14	3.4	0.616	3.19	3.28	0.5	3.44	2.75	0.409	3.63	2.3
5 3/8	5.375	0.768	3.75	4.85	0.736	3.81	4.68	0.597	4.11	3.92	0.489	4.34	3.29
5	5.563	0.795	3.88	5.2	0.762	3.95	5.02	0.618	4.25	4.2	0.506	4.49	3.52
6	6.625	0.946	4.62	7.36	0.908	4.7	7.12	0.736	5.06	5.96	0.602	5.35	4.99
7	7.125	0.976	5.06	8.23	0.976	5.06	8.23	0.792	5.45	6.89	0.648	5.75	5.78
8	8.625	1.232	6.01	12.48	1.182	6.12	12.06	0.958	6.59	10.09	0.784	6.96	8.46
10	10.75	1.536	7.49	19.4	1.473	7.63	18.74	1.194	8.22	15.68	0.977	8.68	13.14
12	12.75	1.821	8.89	27.28	1.747	9.05	26.36	1.417	9.75	22.07	1.159	10.29	18.49
14	14	2	9.76	32.9	1.918	9.93	31.78	1.556	10.7	26.61	1.273	11.3	22.3
16	16	2.286	11.15	42.97	2.192	11.35	41.51	1.778	12.23	34.75	1.455	12.92	29.12
18	18	2.571	12.55	54.37	2.466	12.77	52.53	2	13.76	43.97	1.636	14.53	36.84
20	20	2.857	13.94	67.13	2.74	14.19	64.85	2.222	15.29	54.28	1.818	16.15	45.49
24	24	3.429	16.73	96.68	3.288	17.03	93.39	2.667	18.35	78.18	2.182	19.37	65.52
26	26							2.889	19.88	91.75	2.364	20.99	76.89
28	28							3.111	21.4	106.4	2.545	22.6	89.15
30	30							3.333	22.93	122.13	2.727	24.22	102.35
32	32										2.909	25.83	116.46
34	34										3.091	27.45	131.48
36	36										3.273	29.06	147.41

Please refer to the Plastic Pipe Institute at www.plasticpipe.org

Notes
- Pipe dimensions are in accordance with ASTM F714 and AWWA C906.
- Pressure ratings are for water at 73.4 deg F.
- Some of the pipe sizes and/or DRs above are only available upon request.
- Other diameters and DRs not listed may be available upon special request.
- All dimensions are in inches unless otherwise specified.
- Weights are calculated by the methodology established in PPI's TR7.

		DR13.5			DR17 (125 PSI)			DR32.5 (64 PSI)		
NOMINAL PIPE SIZE	AVERAGE OUTSIDE DIAMETER	MIN WALL THICKNESS	AVERAGE INSIDE DIAMETER	AVERAGE WEIGHT (LBS/FT)	MIN WALL THICKNESS	AVERAGE INSIDE DIAMETER	AVERAGE WEIGHT (LBS/FT)	MIN WALL THICKNESS	AVERAGE INSIDE DIAMETER	AVERAGE WEIGHT (LBS/FT)
1/2	0.84	0.062	0.71	0.07	0.062	0.71	0.07	0.062	0.71	0.07
3/4	1.05	0.078	0.88	0.1	0.062	0.92	0.08	0.062	0.92	0.08
1	1.315	0.097	1.11	0.16	0.077	1.15	0.13	0.062	1.18	0.11
2	2.375	0.176	2	0.53	0.14	2.08	0.43	0.073	2.22	0.23
3	3.50	0.259	2.95	1.16	0.206	3.06	0.94	0.108	3.27	0.51
4	4.50	0.333	3.79	1.91	0.265	3.94	1.55	0.138	4.21	0.83
5 3/8	5.375	0.398	4.53	2.73	0.316	4.71	2.21	0.165	5.03	1.19
5	5.563	0.412	4.69	2.92	0.327	4.87	2.36	0.171	5.2	1.27
6	6.625	0.491	5.58	4.15	0.39	5.8	3.35	0.204	6.19	1.81
7	7.125	0.528	6.01	4.8	0.419	6.24	3.88	0.219	6.66	2.09
8	8.625	0.639	7.27	7.03	0.507	7.55	5.68	0.265	8.06	3.06
10	10.75	0.796	9.06	10.92	0.632	9.41	8.82	0.331	10.05	4.77
12	12.75	0.944	10.75	15.36	0.75	11.16	12.41	0.392	11.92	6.69
14	14.00	1.037	11.8	18.52	0.824	12.25	14.97	0.431	13.09	8.08
16	16.00	1.185	13.49	24.19	0.941	14.01	19.55	0.492	14.96	10.54
18	18.00	1.333	15.17	30.61	1.059	15.75	24.75	0.554	16.83	13.36
20	20.00	1.481	16.86	37.79	1.176	17.51	30.53	0.615	18.7	16.47
24	24.00	1.778	20.23	54.44	1.412	21.01	43.99	0.738	22.44	23.72
26	26.00	1.926	21.92	63.89	1.529	22.76	51.61	0.8	24.3	27.86
28	28.00	2.074	23.6	74.09	1.647	24.51	59.87	0.862	26.17	32.33
30	30.00	2.222	25.29	85.04	1.765	26.26	68.74	0.923	28.04	37.09
32	32.00	2.37	26.98	96.76	1.882	28.01	78.18	0.985	29.91	42.22
34	34.00	2.519	28.66	109.26	2	29.76	88.27	1.046	31.78	47.63
36	36.00	2.667	30.35	122.49	2.118	31.51	98.98	1.108	33.65	53.42

Please refer to the Plastic Pipe Institute at www.plasticpipe.org

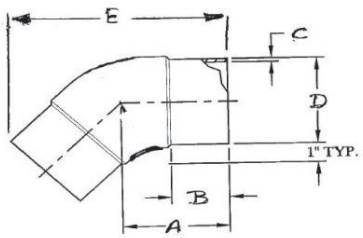
Notes

- Pipe dimensions are in accordance with ASTM F714 and AWWA C906.
- Pressure ratings are for water at 73.4 deg F.
- Some of the pipe sizes and/or DRs above are only available upon request.
- Other diameters and DRs not listed may be available upon special request.
- All dimensions are in inches unless otherwise specified.
- Weights are calculated by the methodology established in PPI's TR7.

HDPE Fittings

HDPE Fittings

Butt 45° Elbows (Elongated)



Molded of PE 100/4710/3408 Black

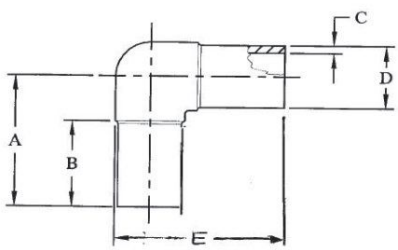
SDR 11 (STANDARD DIMENSION RATIO) 160 PSI (WORKING PRESSURE AT 73.4°F)

NOMINAL DIAMETER	A (IN)	B (IN)	C (IN) WALL	D (IN) OD	E (IN)	WEIGHT (LBS)
3/4" IPS	2.28	2.05	0.095	1.05	4.29	0.05
1" IPS	2.48	2.17	0.119	1.315	4.69	0.08
1 1/4" IPS	2.83	2.44	0.151	1.66	5.31	0.14
1 1/2" IPS	3.07	2.64	0.173	1.9	5.91	0.21
2" IPS	3.23	2.64	0.216	2.375	6.38	0.35
3" IPS	4.72	3.86	0.318	3.5	9.33	1.07
4" IPS	5.31	4.21	0.409	4.5	10.63	2
6" IPS	6.89	5.35	0.603	6.625	14.09	5.55
8" IPS	8.46	6.54	0.785	8.625	17.48	11.64
10" IPS	10.04	7.64	0.978	10.75	20.94	21.3
12" IPS	10.63	7.8	1.16	12.75	22.64	31.84

SDR 17 (STANDARD DIMENSION RATIO) 100 PSI (WORKING PRESSURE AT 73.4°F)

2" IPS	3.23	2.64	0.14	2.375	6.38	0.23
3" IPS	4.72	3.86	0.206	3.5	9.33	0.72
4" IPS	5.31	4.21	0.264	4.5	10.63	1.32
6" IPS	6.89	5.35	0.39	6.625	14.09	3.77
8" IPS	8.46	6.54	0.508	8.625	17.48	8.03
10" IPS	10.04	7.64	0.633	10.75	20.94	14.44
12" IPS	10.63	7.8	0.75	12.75	22.64	21.3

Butt 90° Elbows (Elongated)



Molded of PE 100/4710/3408 Black

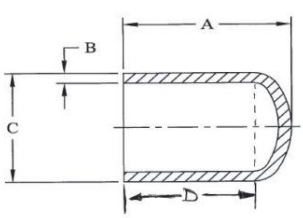
SDR 11 (STANDARD DIMENSION RATIO) 160 PSI (WORKING PRESSURE AT 73.4°F)

NOMINAL DIAMETER	A (IN)	B (IN)	C (IN) WALL	D (IN) OD	E (IN)	WEIGHT (LBS)
3/4" IPS	2.68	2.05	0.095	1.05	3.2	0.05
1" IPS	2.91	2.17	0.119	1.315	3.57	0.09
1 1/4" IPS	3.35	2.44	0.151	1.66	4.18	0.16
1 1/2" IPS	3.7	2.64	0.173	1.9	4.65	0.22
2" IPS	4.25	2.95	0.216	2.375	5.44	0.43
3" IPS	5.91	4.06	0.318	3.5	7.66	1.25
4" IPS	6.89	4.53	0.409	4.5	9.14	2.42
6" IPS	9.06	5.63	0.603	6.625	12.37	6.76
8" IPS	11.81	7.2	0.785	8.625	16.13	15.08
10" IPS	13.78	8.27	0.978	10.75	19.15	27.06
12" IPS	14.96	8.46	1.16	12.75	21.33	41.05

SDR 17 (STANDARD DIMENSION RATIO) 100 PSI (WORKING PRESSURE AT 73.4°F)

2" IPS	4.25	2.95	0.14	2.375	5.44	0.28
3" IPS	5.91	4.06	0.206	3.5	7.66	0.8
4" IPS	6.89	4.53	0.264	4.5	9.14	1.64
6" IPS	9.06	5.63	0.39	6.625	12.37	4.8
8" IPS	11.81	7.2	0.508	8.625	16.13	10.05
10" IPS	13.78	8.27	0.633	10.75	19.15	18.33
12" IPS	14.96	8.46	0.75	12.75	21.33	27.47

Butt End Caps (Elongated)



SDR 11 (STANDARD DIMENSION RATIO) 160 PSI (WORKING PRESSURE AT 73.4°F)

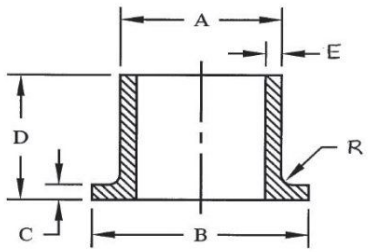
NOMINAL DIAMETER	A (IN)	B (IN)	C (IN) WALL	D (IN) OD	WEIGHT (LBS)
3/4" IPS	2.05	0.095	1.05	1.77	0.02
1" IPS	2.2	0.119	1.315	1.77	0.04
1 1/4" IPS	2.52	0.151	1.66	1.99	0.07
1 1/2" IPS	2.83	0.173	1.9	2.2	0.1
2" IPS	3.23	0.216	2.375	2.52	0.19
3" IPS	4.72	0.318	3.5	3.7	0.59
4" IPS	5.31	0.409	4.5	3.98	1.07
6" IPS	6.89	0.603	6.625	4.84	2.88
8" IPS	8.66	0.785	8.625	5.83	6.32
10" IPS	9.84	0.978	10.75	6.3	10.9
12" IPS	11.77	1.16	12.75	7.52	18.39

SDR 17 (STANDARD DIMENSION RATIO) 100 PSI (WORKING PRESSURE AT 73.4°F)

NOMINAL DIAMETER	A (IN)	B (IN)	C (IN) WALL	D (IN) OD	WEIGHT (LBS)
2" IPS	3.23	0.14	2.375	2.52	0.12
3" IPS	4.72	0.206	3.5	3.7	0.39
4" IPS	5.31	0.264	4.5	3.98	0.71
6" IPS	6.89	0.39	6.625	4.84	1.98
8" IPS	8.66	0.508	8.625	5.83	4.23
10" IPS	9.84	0.633	10.75	6.3	7.53
12" IPS	11.77	0.75	12.75	7.52	12.4

Molded of PE 100/4710/3408 Black

Butt Flange Adapters (Elongated)



Molded of PE 100/4710/3408 Black

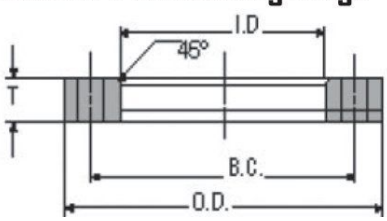
SDR 11 (STANDARD DIMENSION RATIO) 160 PSI (WORKING PRESSURE AT 73.4°F)

NOMINAL DIAMETER	A (IN) OD	B (IN)	C (IN)	D (IN)	E (IN) WALL	WEIGHT (LBS)
3/4" IPS	1.05	1.85	0.39	4.02	0.095	0.07
1" IPS	1.315	2.36	0.39	4.02	0.119	0.11
1 1/4" IPS	1.66	2.8	0.39	4.02	0.151	0.16
1 1/2" IPS	1.9	3.15	0.39	4.02	0.173	0.12
2" IPS	2.375	3.94	0.55	6.1	0.216	0.48
3" IPS	3.5	5	0.67	6.1	0.318	0.93
4" IPS	4.5	6.61	0.79	6.1	0.409	1.66
6" IPS	6.625	8.5	1.02	8.07	0.603	4.07
8" IPS	8.625	10.63	1.26	10.67	0.785	8.73
10" IPS	10.75	12.99	1.38	11.5	0.978	14.11
12" IPS	12.75	15.75	1.5	10.83	1.16	19.88

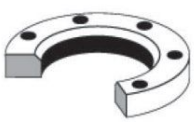
SDR 17 (STANDARD DIMENSION RATIO) 100 PSI (WORKING PRESSURE AT 73.4°F)

2" IPS	2.375	3.94	0.55	6.1	0.14	0.37
3" IPS	3.5	5	0.67	6.1	0.206	0.71
4" IPS	4.5	6.61	0.79	6.1	0.264	1.27
6" IPS	6.625	8.5	1.02	8.07	0.39	3.02
8" IPS	8.625	10.63	1.02	10.67	0.508	6.02
10" IPS	10.75	12.99	1.18	11.5	0.633	10.06
12" IPS	12.75	15.75	1.38	10.83	0.75	14.17

Ductile Iron Backing Rings



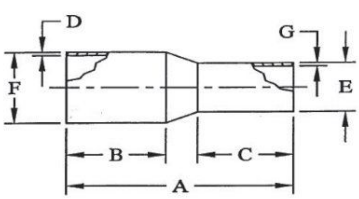
Conventional Cross Section in Ductile Iron



PIPE DIAMETER	OD	FLANGE THICKNESS	ID	BOLT NUMBER	BOLT HOLE DIAMETER	BOLT CIRCLE
1"	3.5	0.44	0.91	4	0.63	2.38
1 1/4"	4.63	0.5	1.72	4	0.63	3.5
1 1/2"	5.0	0.5	1.97	4	0.63	3.88
2"	6.0	0.5	2.75	4	0.75	4.75
3"	7.5	0.5	3.56	4	0.75	6.0
4"	9.0	0.56	4.56	8	0.75	7.50
6"	11.0	0.63	6.75	8	0.88	9.5
8"	13.5	0.63	8.75	8	0.88	11.75
10"	16.0	0.63	10.88	12	1.0	14.25
12"	19.0	0.75	12.88	12	1.0	17.0

- Description: A conventional cross section (reduced section modulus) in ductile iron.
- Utilization: A back-up ring for IPS or APR connections. Buttweld or integrally flared stub-ends.
- Materials: Cast in ductile iron A536. Tensile strength 80,000 psi, yield 55,000 psi, elongation 6%.
- Dimensions: Vital dimensions AWWA C207, Mates with ANSI B16.5, B16.47; AWWA C207.
- Finish: Red oxide primer, hot dipped galvanized

Butt Reducers (Concentric Elongated)



Molded of PE 100/4710/3408 Black

SDR 17 (STANDARD DIMENSION RATIO) 100 PSI (WORKING PRESSURE AT 73.4°F)

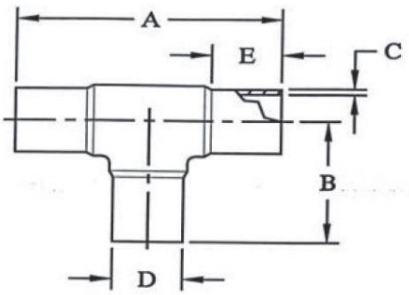
NOMINAL DIAMETER	A (IN)	B (IN)	C (IN)	D (IN) WALL	E (IN) OD	F (IN) OD	G (IN) WALL	WEIGHT (LBS)
3 x 2" IPS	7.87	3.94	2.95	0.206	2.375	3.5	0.14	0.47
4 x 2 " IPS	9.06	4.33	2.95	0.264	2.375	4.5	0.14	0.8
4 x 3" IPS	9.06	4.33	3.94	0.264	3.5	4.5	0.206	0.94
6 x 3" IPS	11.42	5.12	3.94	0.39	3.5	6.625	0.206	2.18
6 x 4" IPS	11.42	5.12	4.33	0.39	4.5	6.625	0.264	2.39
8 x 6" IPS	12.8	6.1	5.12	0.508	6.625	8.625	0.39	4.92
10 x 8" IPS	14.37	6.25	5.813	0.75	8.625	10.75	0.508	10.21
12 x 8" IPS	16.54	7.09	6.1	0.75	8.625	12.75	0.508	12.82
12x10" IPS	16.54	7.09	6.69	0.75	10.75	12.75	0.633	14.43

SDR 11 (STANDARD DIMENSION RATIO) 160 PSI (WORKING PRESSURE AT 73.4°F)

2 x 1 " IPS	6.5	2.95	2.64	0.216	1.9	2.375	0.173	0.29
3 x 2" IPS	7.87	3.94	2.95	0.318	2.375	3.5	0.216	0.7
4 x 2" IPS	9.06	4.33	2.95	0.409	2.375	4.5	0.216	1.21
4 x 3" IPS	9.06	4.33	3.94	0.409	3.5	4.5	0.318	1.41
6 x 3" IPS	11.42	5.12	3.94	0.603	3.5	6.625	0.318	3.21
6 x 4 " IPS	11.42	5.12	4.33	0.603	4.5	6.625	0.409	3.54
8 x 6" IPS	12.8	6.1	5.12	0.785	6.625	8.625	0.603	7.31
10 x 8" IPS	14.37	6.25	5.875	1.16	8.625	10.75	0.785	14.45
12 x 8" IPS	16.54	7.09	6.1	1.16	8.625	12.75	0.785	19.11
12 x 10" IPS	16.54	7.09	6.69	1.16	10.75	12.75	0.978	21.66

HDPE Fittings

Butt Tees (Elongated)



Molded of PE 100/4710/3408 Black

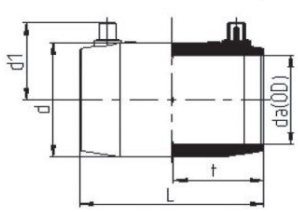
SDR 11 (STANDARD DIMENSION RATIO) 100 PSI (WORKING PRESSURE AT 73.4°F)

NOMINAL DIAMETER	A (IN)	B (IN)	C (IN)	D (IN)	E (IN)	WEIGHT (LBS)
3/4" IPS	5	2.5	0.095	1.05	1.77	0.09
1" IPS	5.67	2.83	0.119	1.315	1.77	0.17
1 1/4" IPS	6.61	3.31	0.151	1.66	2.01	0.3
1 1/2" IPS	7.99	4	0.173	1.9	2.52	0.47
2" IPS	8.66	4.33	0.216	2.375	2.48	0.82
3" IPS	11.81	5.91	0.318	3.5	3.54	2.18
4" IPS	13.78	6.89	0.409	4.5	3.94	4.02
6" IPS	18.11	9.06	0.603	6.625	4.72	10.91
8" IPS	23.62	11.81	0.785	8.625	5.71	24.61
10" IPS	27.56	13.78	0.978	10.75	6.3	42.6
12" IPS	31.57	15.97	1.16	12.75	7.52	67.85

SDR 17 (STANDARD DIMENSION RATIO) 100 PSI (WORKING PRESSURE AT 73.4°F)

NOMINAL DIAMETER	A (IN)	B (IN)	C (IN)	D (IN)	E (IN)	WEIGHT (LBS)
2" IPS	8.66	4.33	0.14	2.375	2.48	0.53
3" IPS	11.81	5.91	0.206	3.5	3.54	1.45
4" IPS	13.78	6.89	0.264	4.5	3.94	2.58
6" IPS	18.11	9.06	0.39	6.625	4.72	7.24
8" IPS	23.62	11.81	0.508	8.625	5.71	16.6
10" IPS	27.56	13.78	0.633	10.75	6.3	28.9
12" IPS	31.57	15.97	0.75	12.75	7.52	45.32

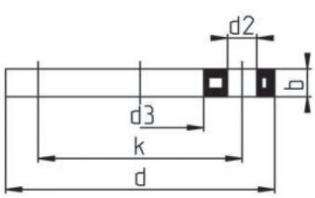
Electro-Fusion Coupler



SDR 17-7.4 PE 100/4710 BLACK. MOP WATER 160PSI / GAS 100PSI INJECTION MOLDED

NOMINAL SIZE DA (OD)	PIPE OD	NOMINAL L	NOMINAL D	NOMINAL DI	NOMINAL T
1/2"	.63"	2.953	1.22	1.398	1.476
3/4"	1.05"	3.189	1.417	1.496	1.594
1"	1.315"	3.504	1.732	1.654	1.752
1 1/4"	1.66"	3.898	2.087	1.811	1.949
1 1/2"	1.9"	4.37	2.638	2.008	2.185
2"	2.375"	5	3.13	2.185	2.5
3"	3.5"	5.551	4.33	2.835	2.736
4"	4.5"	5.98	5.55	3.307	2.95
6"	6.625"	7.126	8.11	4.39	3.52
8"	8.625"	9.094	10.551	5.433	4.469
10"	10.75"				
12"	12.75"				

PP Gray Steel Backing Ring ANSI (Fiber Reinforced)



STEEL INSERT, INJECTION MOLDED, HIGH STIFFNESS, DIMENSIONAL AND HEAT STABILITY

PIPE DIAMETER	OD (MM-IN)	D (IN)	D2 (IN)	D3 (IN)	B (IN)	K (IN)
1/2"	20 - 1/2" - MOP 160 psi	3.74	0.63	1.102	0.472	2.38
3/4"	25 - 3/4" - MOP 160 psi	4.016	0.63	1.339	0.472	2.75
1"	32 - 1" - MOP 160 psi	4.488	0.630	1.654	0.630	3.120
1 1/4"	40 - 1 1/4" - MOP 160 psi	5.118	0.630	2.008	0.630	3.500
1 1/2"	50 - 1 1/2" - MOP 160 psi	5.236	0.630	2.441	0.709	3.880
2"	63 - 2" - MOP 160 psi	6.378	0.787	3.071	0.709	4.750
2 1/2"	75-2 1/2"- MOP 160 psi	7.244	0.787	3.622	0.709	5.500
3"	90 - 3" - MOP 160 psi	7.638	0.787	4.370	0.709	6.000
4"	110/125 - 4" - MOP 160 psi	9.015	0.787	5.236	0.709	7.500
6"	160 - 6" - MOP 160 psi	11.141	0.866	7.008	0.945	9.500
8"	200/225 - 8" - MOP 160 psi	13.582	0.866	9.291	0.945	11.750
10"	250 - 10" - MOP 160 psi	16.22	0.984	11.339	1.063	14.250
12"	315 - 12" - MOP 160 psi	19.17	0.984	13.307	1.260	17.000