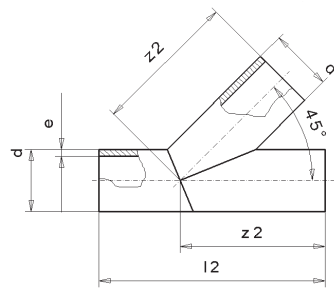
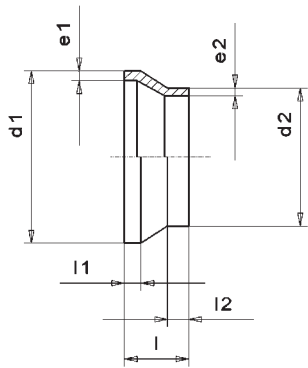
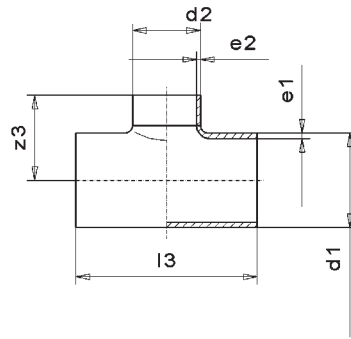
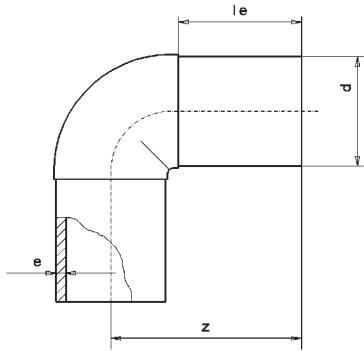


AlphaPlus - Polypropylene Single Wall Dimension Guide



PP Pressure pipes



(Pressure Class 90 psi / SDR 17.6 - Pressure Class 150 psi / SDR 11)

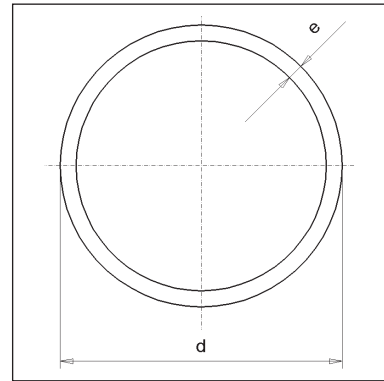
(Pressure Class 45 psi / SDR 33)

Material
ASTM D 4101, Type 1
standard length 16.4 ft.
(5m)

Color
European Grey

Material
PP-H 100
standard length 16.4 ft.
(5m)

Color
European Grey



D	d	Pressure Class 150 psi / SDR 11			Pressure Class 90 psi / SDR 17.6		
		e	Part #	lbs/ft	e	Part #	lbs/ft
1/2	0.79	0.07	3310000720	0.071			
3/4	0.98	0.09	3310000722	0.109	0.07	3310000721	0.088
1	1.26	0.11	3310000724	0.174	0.08	3310000723	0.115
1-1/4	1.57	0.14	3310000726	0.276	0.09	3310000725	0.182
1-1/2	1.97	0.18	3310000730	0.427	0.11	3310000728	0.282
2	2.48	0.22	3310000733	0.676	0.14	3310000732	0.441
2-1/2	2.96	0.26	3310000736	0.944	0.16	3310000735	0.626
3	3.54	0.32	3310000740	1.360	0.20	3310000739	0.891
4	4.33	0.39	3310000745	2.016	0.25	3310000744	1.333
6	6.30	0.57	3310000757	4.281	0.35	3310000756	2.793
8	7.87	0.71	3310000765	6.666	0.44	3310000764	4.355
10	9.84	0.89	3310000772	10.385	0.55	3310000771	6.767
12	12.40	1.12	3310000780	16.482	0.70	3310000779	10.720
14	13.98	1.26	3310000784	20.904	0.79	3310000783	13.601
16	15.75	1.42	3310000789	26.532	0.89	3310000788	17.219
18	17.87	1.61	3310000791	33.567	1.00	3310000790	21.775
20	19.69	1.78	3310000796	41.540	1.11	3310000795	26.934
22	22.05				1.24	3310000798	33.701
24	24.80				1.40	3310000799	42.679

D	d	SDR 33		
		e	Part #	lbs/ft
1-1/2	1.97	0.07	3310000727	0.184
2	2.48	0.07	3310001199	0.255
2-1/2	2.96	0.09	3310001201	0.353
3	3.54	0.11	3310001203	0.507
4	4.33	0.13	3310000742	0.750
6	6.30	0.19	3310000754	1.554
8	7.87	0.24	3310000762	2.465
10	9.84	0.30	3310000770	3.798
12	12.40	0.38	3310000777	6.009
14	13.98	0.42	3310000782	7.571
16	15.75	0.48	3310000787	9.648
18	17.87	0.54	3310001217	12.194
20	19.69	0.60	3310000794	15.008
22	22.05	0.67	3310001220	18.894
24	24.80	0.76	3310001223	23.852

Dimensions are in inches unless otherwise noted.

PP Stub Flanges for loose backing rings



(Pressure Class 45 psi / SDR 33) - Pressure Class 90 psi / SDR 17.6)

Material

ASTM D 4101, Type 1
ASTM D4101, Type 2

Style

injected, for butt welding

Color

European Grey

Remark

Welding collars for application with ANSI loose flanges are available in dimensions 20 - 90 mm Pressure Class 150 psi / SDR 11. For bigger diameters welding collars according to DIN can be used. Further dimensions see page C 228.

Material

ASTM D 4101, Type 1
ASTM D4101, Type 2

Style

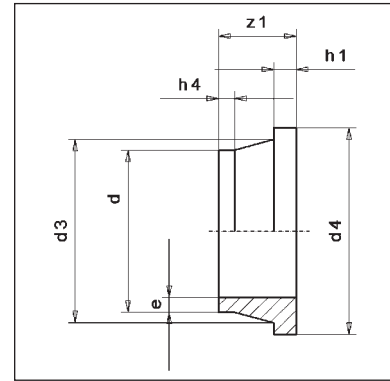
injected, for butt welding

Color

European Grey

Remark

Welding collars for application with ANSI loose flanges are available in dimensions 20 - 90 mm Pressure Class 150 psi / SDR 11. For bigger diameters welding collars according to DIN can be used. Further dimensions see page C 229.



Pressure Class 45 psi / SDR 33								
D	e	d3	d4	h1	h4 min	z1	Part #	lbs
4	0.13	4.92	6.18	0.71	1.26	3.15	3310600175 ¹	0.667
6	0.19	6.89	8.31	0.71	1.34	3.15	3310600183 ¹	1.122
8	0.24	9.13	10.51	0.71	1.42	4.72	3310600188 ¹	2.585
10	0.30	11.22	12.56	0.79	1.38	4.72	3310600194 ¹	3.685
12	0.38	13.19	14.53	0.79	1.38	4.72	3310600200 ¹	4.488
14	0.43	14.69	16.93	0.91	1.97	4.72	3310600203 ¹	5.654
16	0.48	16.81	18.98	1.02	2.05	5.51	3310600206 ¹	8.118
18	0.54	20.24	22.99	1.30	1.97	5.51	3310600364 ¹	16.060
20	0.60	20.87	22.99	1.30	1.77	5.51	3310600365 ¹	13.640
22	0.68	24.21	26.93	1.38	1.77	5.51	3310600366 ¹	20.020
24	0.76	25.28	26.93	1.38	2.36	5.51	3310600367 ¹	15.906

Pressure Class 90 psi / SDR 17.6								
D	e	d3	d4	h1	h4 min	z1	Part #	lbs
1 1/2	0.11	2.40	3.43	0.47	0.91	1.97	3310600413	0.154
2	0.14	2.95	3.98	0.55	0.79	1.97	3310600414	0.220
2 1/2	0.17	3.50	4.80	0.63	0.79	1.97	3310600171 ¹	0.407
3	0.20	4.13	5.39	0.67	1.69	3.15	3310600173 ¹	0.579
4	0.25	4.92	6.18	0.71	1.46	3.15	3310600176 ¹	0.814
6	0.36	6.89	8.31	0.71	1.34	3.15	3310600184 ¹	1.496
8	0.45	9.13	10.55	0.94	1.42	4.72	3310600189 ¹	3.366
10	0.56	11.22	12.60	0.98	1.38	4.72	3310600195 ¹	4.884
12	0.70	13.19	14.57	0.98	1.38	4.72	3310600201 ¹	6.512
14	0.79	14.69	16.93	1.18	1.97	4.72	3310600204 ¹	8.580
16	0.89	16.81	18.98	1.30	1.65	5.51	3310600207 ¹	12.518
18	1.00	20.24	23.03	1.81	1.97	5.51	3310600209 ¹	22.396
20	1.12	20.87	23.03	1.81	1.57	5.51	3310600211 ¹	20.460
22	1.25	24.21	26.97	1.97	1.18	5.51	3310600213 ¹	26.400
24	1.41	25.28	26.97	1.97	1.97	5.51	3310600214 ¹	25.553

Dimensions are in inches unless otherwise noted.

PP Stub Flanges for loose backing rings



(Pressure Class 45 psi / SDR 33) - Pressure Class 90 psi / SDR 17.6)

Material
ASTM D 4101, Type 1
ASTM D4101, Type 2

Style
injected, for butt welding

Color
European Grey

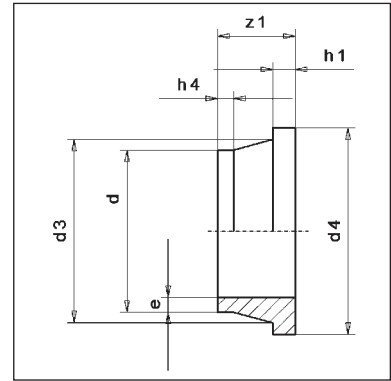
Remark
Welding collars for application with ANSI loose flanges are available in dimensions 20 – 90 mm Pressure Class 150 psi / SDR 11. For bigger diameters welding collars according to DIN can be used. Further dimensions see page C 228.

Material
ASTM D 4101, Type 1
ASTM D4101, Type 2

Style
injected, for butt welding

Color
European Grey

Remark
Welding collars for application with ANSI loose flanges are available in dimensions 20 – 90 mm Pressure Class 150 psi / SDR 11. For bigger diameters welding collars according to DIN can be used. Further dimensions see page C 229.



Pressure Class 45 psi / SDR 33									
D	e	d3	d4	h1	h4 min	z1	Part #	lbs	
4	0.13	4.92	6.18	0.71	1.26	3.15	3310600175 ¹	0.667	
6	0.19	6.89	8.31	0.71	1.34	3.15	3310600183 ¹	1.122	
8	0.24	9.13	10.51	0.71	1.42	4.72	3310600188 ¹	2.585	
10	0.30	11.22	12.56	0.79	1.38	4.72	3310600194 ¹	3.685	
12	0.38	13.19	14.53	0.79	1.38	4.72	3310600200 ¹	4.488	
14	0.43	14.69	16.93	0.91	1.97	4.72	3310600203 ¹	5.654	
16	0.48	16.81	18.98	1.02	2.05	5.51	3310600206 ¹	8.118	
18	0.54	20.24	22.99	1.30	1.97	5.51	3310600364 ¹	16.060	
20	0.60	20.87	22.99	1.30	1.77	5.51	3310600365 ¹	13.640	
22	0.68	24.21	26.93	1.38	1.77	5.51	3310600366 ¹	20.020	
24	0.76	25.28	26.93	1.38	2.36	5.51	3310600367 ¹	15.906	

Pressure Class 90 psi / SDR 17.6									
D	e	d3	d4	h1	h4 min	z1	Part #	lbs	
1 1/2	0.11	2.40	3.43	0.47	0.91	1.97	3310600413	0.154	
2	0.14	2.95	3.98	0.55	0.79	1.97	3310600414	0.220	
2 1/2	0.17	3.50	4.80	0.63	0.79	1.97	3310600171 ¹	0.407	
3	0.20	4.13	5.39	0.67	1.69	3.15	3310600173 ¹	0.579	
4	0.25	4.92	6.18	0.71	1.46	3.15	3310600176 ¹	0.814	
6	0.36	6.89	8.31	0.71	1.34	3.15	3310600184 ¹	1.496	
8	0.45	9.13	10.55	0.94	1.42	4.72	3310600189 ¹	3.366	
10	0.56	11.22	12.60	0.98	1.38	4.72	3310600195 ¹	4.884	
12	0.70	13.19	14.57	0.98	1.38	4.72	3310600201 ¹	6.512	
14	0.79	14.69	16.93	1.18	1.97	4.72	3310600204 ¹	8.580	
16	0.89	16.81	18.98	1.30	1.65	5.51	3310600207 ¹	12.518	
18	1.00	20.24	23.03	1.81	1.97	5.51	3310600209 ¹	22.396	
20	1.12	20.87	23.03	1.81	1.57	5.51	3310600211 ¹	20.460	
22	1.25	24.21	26.97	1.97	1.18	5.51	3310600213 ¹	26.400	
24	1.41	25.28	26.97	1.97	1.97	5.51	3310600214 ¹	25.553	

Dimensions are in inches unless otherwise noted.

PP Stub Flanges for loose backing rings



(Pressure Class 150 psi / SDR 11)

Material

ASTM D 4101, Type 1
ASTM D4101, Type 2

Style

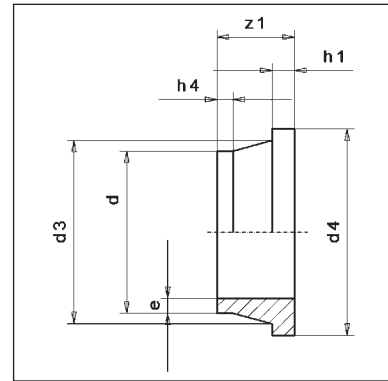
injected, for butt welding

Color

European Grey

Remark

Welding collars for application with ANSI loose flanges are available in dimensions 20 – 90 mm Pressure Class 150 psi / SDR 11. For bigger diameters welding collars according to DIN can be used.



Pressure Class 150 psi / SDR 11								
D	e	d3	d4	h1	h4 min	z1	Part #	lbs
1/2	0.07	1.06	1.77	0.28	1.18	1.97	3310600222	0.040
3/4	0.09	1.30	2.28	0.35	1.10	1.97	3310600223	0.068
1	0.11	1.57	2.68	0.39	1.06	1.97	3310600224	0.099
1 1/4	0.15	1.97	3.07	0.43	0.94	1.97	3310600225	0.156
1 1/2	0.18	2.40	3.46	0.47	0.91	1.97	3310600226	0.198
2	0.23	2.95	4.02	0.55	0.79	1.97	3310600227	0.297
2 1/2	0.27	3.50	4.80	0.63	0.79	1.97	3310600172 ¹	0.466
3	0.32	4.13	5.43	0.67	1.69	3.15	3310600174 ¹	0.700
4	0.39	4.92	6.22	0.71	1.46	3.15	3310600177 ¹	1.012
6	0.45	5.20	6.22	0.98	1.38	3.15	3310600179 ¹	1.107
8	0.50	6.10	7.40	0.98	1.06	3.15	3310600182 ¹	1.595
10	0.57	6.89	8.35	0.98	1.06	3.15	3310600185 ¹	2.024
12	0.65	7.09	8.31	1.18	0.79	3.15	3310600187 ¹	2.057
14	0.72	9.13	10.51	1.26	1.10	4.72	3310600190 ¹	4.675
16	0.81	9.25	10.51	1.26	1.50	4.72	3310600193 ¹	4.653
18	0.89	11.22	12.56	1.38	0.98	4.72	3310600196 ¹	6.710
20	1.00	11.46	12.56	1.38	1.38	4.72	3310600199 ¹	6.534
22	1.13	13.19	14.53	1.38	0.98	4.72	3310600202 ¹	9.394
24	1.27	14.69	16.93	1.57	1.57	4.72	3310600205 ¹	12.408

Dimensions are in inches unless otherwise noted.

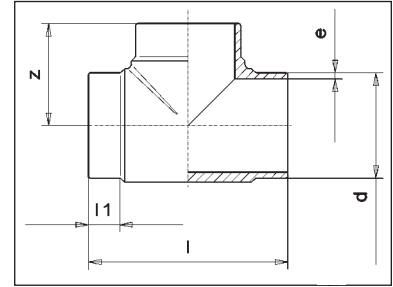
PP Tees



Material
ASTM D 4101, Type 1
ASTM D4101, Type 2

Style
injected, for
butt welding

Color
European Grey



D	Pressure Class 45 psi / SDR 33						Pressure Class 90 psi / SDR 17.6					
	e	l	l1	z	Part #	lbs	e	l	l1	z	Part #	lbs
1 1/2							0.11	3.94	0.47	1.97	3310300197	0.198
2							0.14	5.04	0.63	2.48	3310300199	0.387
2 1/2							0.17	5.91	0.75	2.95	3310300201	0.662
3							0.20	7.20	1.54	3.62	3310300203	0.968
4	0.13	8.46	1.18	4.13	33103001531	0.880	0.25	10.04	2.17	5.04	3310300205	2.156
6	0.19	10.63	1.57	5.51	33103001621	2.189	0.36	12.44	2.17	6.22	3310300211	5.258
8	0.24	13.39	1.77	6.69	33103001671	4.136	0.45	17.05	3.46	8.46	3310300215	11.176
10	0.30	17.24	2.05	8.46	33103001731	10.120	0.56	17.56	2.52	8.74	3310300174 ¹	16.500
12	0.38	21.06	3.03	10.63	33103001791	18.810	0.70	22.28	3.23	10.91	3310300180 ¹	30.800
14	0.43	26.54	3.78	13.66	33103002821	29.612	0.79	27.17	3.94	13.58	3310300182 ¹	46.200
16	0.48	26.77	3.54	13.39	33103002831	45.320	0.89	28.43	4.02	14.17	3310300184 ¹	57.200

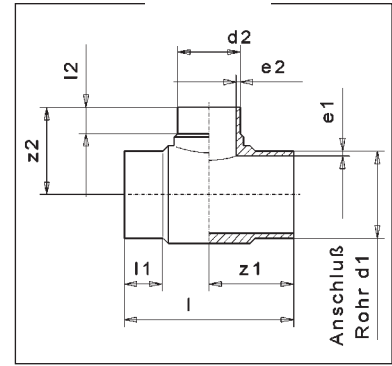
D	Pressure Class 150 psi / SDR 11					Part #	lbs
	e	l	l1	z			
1/2	0.07	3.07	0.39	1.54	3310300193	0.055	
3/4	0.09	3.27	0.39	1.57	3310300194	0.073	
1	0.11	3.43	0.39	1.65	3310300195	0.106	
1 1/4	0.15	3.62	0.39	1.77	3310300196	0.156	
1 1/2	0.18	3.94	0.47	1.97	3310300198	0.257	
2	0.23	5.04	0.63	2.48	3310300200	0.524	
2 1/2	0.27	5.91	0.75	2.95	3310300202	0.827	
3	0.32	7.20	1.54	3.62	3310300204	1.309	
4	0.39	10.04	2.17	5.04	3310300206	2.871	
6	0.57	12.44	2.17	6.22	3310300212	7.249	
8	0.72	17.05	3.46	8.46	3310300216	14.916	
10	0.89	17.56	2.52	8.74	3310300175 ¹	23.100	
12	1.13	22.28	3.23	10.94	3310300181 ¹	45.320	
14	1.27	27.17	3.94	13.58	3310300183 ¹	68.420	
16	1.43	28.43	4.02	14.17	3310300185 ¹	83.600	

Dimensions are in inches unless otherwise noted.

PP Tees with reduced branch



Material PP-R 80	Material PP-R 80
Style injected, for butt welding	Style injected, for butt welding
Color European Grey	Color European Grey
Remark Further dimensions see page C 272.	Remark Further dimensions see page C 273.



Pressure Class 90 psi / SDR 17.6										
D1	D2	e1	e2	l	l1	l2	z1	z2	Part #	lbs
3	1	0.20	0.12	7.99	2.09	0.91	4.02	3.35	3313500114	0.682
4	1	0.25	0.12	7.48	2.60	0.87	4.61	3.58	3313500425	1.232
4	1 1/2	0.25	0.11	9.21	2.60	1.06	4.61	3.98	3313500426	1.474
4	2	0.25	0.14	9.45	2.76	1.30	4.61	4.17	3313500247	1.496
8	2	0.45	0.14	15.04	5.63	1.22	7.52	5.71	3313500441	6.820
8	3	0.45	0.20	15.35	4.96	1.57	7.52	6.38	3313500442	6.996
8	4	0.45	0.25	15.35	4.80	1.57	7.52	6.30	3313500443	7.128
8	6	0.45	0.36	15.35	3.86	2.36	7.87	7.09	3313500123	7.788
10	4	0.56	0.25	17.44	5.31	1.30	8.86	7.68	3313500450	11.000
10	6	0.56	0.36	17.32	4.33	2.28	8.86	8.39	3313500451	11.000

Pressure Class 150 psi / SDR 11										
D1	D2	e1	e2	l	l1	l2	z1	z2	Part #	lbs
3	1	0.32	0.11	7.99	2.09	0.91	4.02	3.35	3313500126	1.232
4	1	0.39	0.11	9.21	2.60	0.87	4.61	3.58	3313500128	2.068
4	1.5	0.39	0.18	9.45	2.60	1.06	4.61	3.98	3313500304	2.068
4	2	0.45	0.23	10.39	2.76	1.22	5.20	4.33	3313500129	3.080
8	2	0.72	0.23	15.04	5.63	1.22	7.52	5.71	3313500318	10.340
8	3	0.72	0.32	15.35	4.96	1.57	7.68	6.38	3313500319	9.944
8	4	0.72	0.39	15.35	4.80	1.57	7.68	6.30	3313500320	9.856
8	6	0.72	0.57	15.35	3.86	2.36	6.50	7.09	3313500322	10.736
10	4	0.89	0.39	17.44	5.31	1.30	8.74	7.68	3313500329	17.600
10	6	0.89	0.57	17.32	4.33	2.28	8.66	8.39	3313500135	17.358

Dimensions are in inches unless otherwise noted.

PP Tees with reduced branch



(Pressure Class 90 psi / SDR 17.6 - Pressure Class 150 psi / SDR 11)

Material

ASTM D 4101, Type 1

Style

fabricated from pipe
Pressure Class 90 psi /
SDR 17.6 and Pressure
Class 150 psi / SDR 11,
for butt welding

a: swept

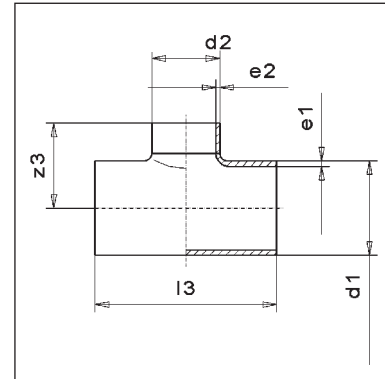
b: saddle-mounted¹

Color

European Grey

Remark

welded tees without
reinforcement: pressure
reduction factor 0,75;
tees with reinforcement
on request



D1	D2	Pressure Class 90 psi / SDR 17.6						Pressure Class 150 psi / SDR 11					
		e1	e2	I3	z3	Part #	lbs	e1	e2	I3	z3	Part #	lbs
3	1 1/2	0.20	0.11	10.43	3.74	3313500340	0.799	0.32	0.18	9.84	3.74	3313500601	1.188
3	2	0.20	0.14	9.84	3.74	3313500583	0.849	0.32	0.23	10.43	3.74	3313500602	1.144
4	1 1/2	0.25	0.11	9.84	4.13	3313500341	1.164	0.39	0.18	9.84	4.13	3313500603	1.782
4	2	0.25	0.14	10.43	4.13	3313500342	1.263	0.39	0.23	10.43	4.13	3313500604	1.958
4	2 1/2	0.25	0.17	10.83	4.13	3313500343	1.346	0.39	0.27	10.83	4.13	3313500605	2.112
6	2	0.36	0.14	10.43	5.12	3313500350	2.530	0.57	0.23	10.43	5.12	3313500614	4.070
6	2 1/2	0.36	0.17	10.83	5.12	3313500351	2.640	0.57	0.27	10.83	5.12	3313500615	4.334
6	3	0.36	0.20	11.42	5.12	3313500586	2.838	0.57	0.32	11.42	5.12	3313500616	4.752
6	4	0.36	0.25	12.20	5.12	3313500587	3.102	0.57	0.39	12.20	5.12	3313500617	5.324
8	2 1/2	0.45	0.17	10.83	5.91	3313500354	4.070	0.72	0.27	10.83	5.91	3313500622	6.666
8	3	0.45	0.20	18.11	7.87	3313500590	4.312	0.72	0.32	11.42	5.91	3313500623	7.238
8	4	0.45	0.25	17.32	7.87	3313500591	4.664	0.72	0.39	12.20	5.91	3313500624	8.008
8	6	0.45	0.36	12.20	5.91	3313500356	7.062	0.72	0.57	18.11	7.87	3313500626	13.332
10	3	0.56	0.20	19.69	8.86	3313500594	6.600	0.89	0.32	11.42	6.89	3313500633	10.978
10	4	0.56	0.25	11.42	6.89	3313500595	7.106	0.89	0.39	12.20	6.89	3313500634	11.220

D1	D2	Pressure Class 90 psi / SDR 17.6						Pressure Class 150 psi / SDR 11					
		e1	e2	I3	z3	Part #	lbs	e1	e2	I3	z3	Part #	lbs
10	6	0.56	0.36	18.11	8.86	3313500362	10.626	0.89	0.57	18.11	8.86	3313500636	19.580
10	8	0.56	0.45	12.20	6.89	3313500112	11.704	0.89	0.72	19.69	8.86	3313500638	22.858
12	4	0.63	0.25	12.20	7.48	3313500597	8.844	1.00	0.39	12.20	7.48	3313500640	15.026
12	6	0.63	0.36	18.11	9.45	3313500365	12.848	1.00	0.57	18.11	9.45	3313500642	23.078
12	8	0.70	0.36	17.32	10.24	3313500113	16.126	1.13	0.57	18.11	10.24	3313500648	27.126
12	10	0.70	0.40	18.11	10.24	3313500370	16.874	1.13	0.65	18.90	10.24	3313500649	31.856
14	2	0.70	0.50	20.67	10.24	3313500372	18.546	1.13	0.81	20.67	10.24	3313500651	37.070
14	4	0.79	0.25	12.20	9.06	3313500600	14.036	1.27	0.39	12.20	9.06	3313500653	23.716
14	6	0.79	0.36	20.67	11.02	3313500375	20.284	1.27	0.57	18.11	11.02	3313500655	37.004
14	8	0.79	0.40	17.32	11.02	3313500376	21.164	1.27	0.65	18.90	11.02	3313500656	39.490
14	10	0.79	0.45	21.65	11.02	3313500377	22.000	1.27	0.72	19.69	11.02	3313500657	42.152
14	12	0.79	0.56	22.83	11.42	3313500379	24.420	1.27	0.89	21.65	11.02	3313500659	49.324
16	4	0.89	0.31	17.32	11.81	3313500381	24.420	1.43	0.50	17.32	11.81	3313500661	43.318
16	6	0.89	0.40	18.90	11.81	3313500383	26.620	1.43	0.65	18.90	11.81	3313500663	49.148
16	8	0.89	0.56	21.65	11.81	3313500386	30.580	1.43	0.89	21.65	11.81	3313500666	60.676
16	10	0.89	0.70	24.21	11.81	3313500388	34.100						

Dimensions are in inches unless otherwise noted.

PP Tees with reduced branch



(Pressure Class 90 psi / SDR 17.6 - Pressure Class 150 psi / SDR 11)

Material

ASTM D 4101, Type 1

Style

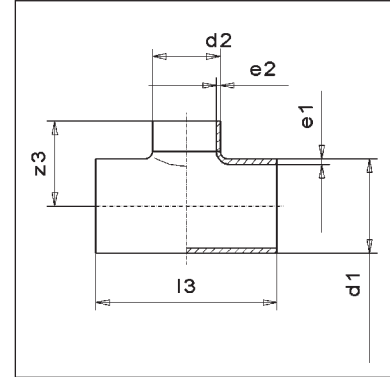
fabricated from pipe
 Pressure Class 90 psi /
 SDR 17.6 and Pressure
 Class 150 psi / SDR 11,
 for butt welding
 a: swept
 b: saddle-mounted¹

Color

European Grey

Remark

welded tees without
 reinforcement: pressure
 reduction factor 0,75;
 tees with reinforcement
 on request



D1	D2	e1	Pressure Class 90 psi / SDR 17.6					Pressure Class 150 psi / SDR 11					
			e2	l3	z3	Part #	lbs	e1	e2	l3	z3	Part #	lbs
18	8	1.00	0.45	19.69	12.80	3313500391	34.980	1.61	0.72	19.69	12.80	3313500671	64.966
18	10	1.00	0.56	21.65	12.80	3313500393	38.280	1.61	0.89	21.65	12.80	3313500673	74.866
18	12	1.00	0.70	24.21	12.80	3313500395	42.680	1.61	1.13	24.21	12.80	3313500675	89.144
20	6	1.12	0.36	18.11	13.78	3313500396	39.820	1.79	0.57	18.11	13.78	3313500676	70.378
20	8	1.12	0.45	19.69	13.78	3313500398	43.120	1.79	0.72	19.69	13.78	3313500678	78.958
20	10	1.12	0.56	21.65	13.78	3313500400	47.080	1.79	0.89	21.65	13.78	3313500680	90.728
20	12	1.12	0.70	24.21	13.78	3313500402	52.360	1.79	1.13	24.21	13.78	3313500682	107.052
20	14	1.12	0.79	25.79	13.78	3313500403	55.440	1.79	1.27	25.79	13.78	3313500683	118.074
22	8	1.25	0.45	25.79	14.96	3313500405	53.900						
22	10	1.25	0.56	19.69	14.96	3313500407	58.960						
22	12	1.25	0.70	22.83	14.96	3313500409	65.560						
22	14	1.25	0.79	24.21	14.96	3313500410	69.520						
22	16	1.25	0.89	27.56	14.96	3313500411	73.700						
24	8	1.41	0.45	19.69	16.34	3313500412	68.200						
24	10	1.41	0.56	21.65	16.34	3313500414	74.580						
24	12	1.41	0.70	24.21	16.34	3313500416	82.940						
24	14	1.41	0.79	25.79	16.34	3313500417	87.780						
24	16	1.41	0.89	27.56	16.34	3313500418	93.060						
24	18	1.41	1.00	29.53	16.34	3313500419	99.000						

Dimensions are in inches unless otherwise noted.

PP Wyes 45°



(Pressure Class 90 psi / SDR 17.6 - Pressure Class 150 psi / SDR 11)

Material

ASTM D 4101, Type 1

Style

fabricated from pipe,
for butt welding

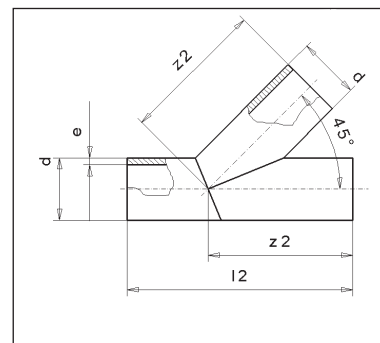
Color

European Grey

Remark

Branches without
reinforcement: pressure
reduction factor: 0,50.

Branches with
reinforcement on
request.



D	e	Pressure Class 90 psi / SDR 17.6				Pressure Class 150 psi / SDR 11				
		l2	z2	Part #	lbs	e	l2	z2	Part #	lbs
4	0.25	20.08	16.93	3313700117	3.498	0.39	20.08	16.93	3313700026	9.504
6	0.36	28.74	19.69	3313700130	10.340	0.57	28.74	19.69	3313700132	14.080
8	0.45	32.68	21.65	3313700138	17.622	0.72	32.68	21.65	3313700140	25.520
10	0.56	37.01	24.02	3313700146	30.800	0.89	37.01	24.02	3313700147	48.532
12	0.70	43.31	27.56	3313700150	57.420	1.13	43.31	27.56	3313700151	88.220
14	0.79	50.39	33.46	3313700152	75.680	1.27	50.39	33.46	3313700153	117.040
16	0.89	53.15	35.43	3313700154	104.280	1.43	53.15	35.43	3313700155	160.820
18	1.00	56.30	37.40	3313700156	139.920	1.61	56.30	37.40	3313700157	213.840
20	1.12	59.06	39.37	3313700158	183.480	1.79	59.06	39.37	3313700159	340.450
22	1.25	62.99	41.34	3313700160	235.400					
24	1.41	64.96	43.31	3313700161	299.200					

Dimensions are in inches unless otherwise noted.

PP Reducers concentric

(Pressure Class 90 psi / SDR 17.6)



Material

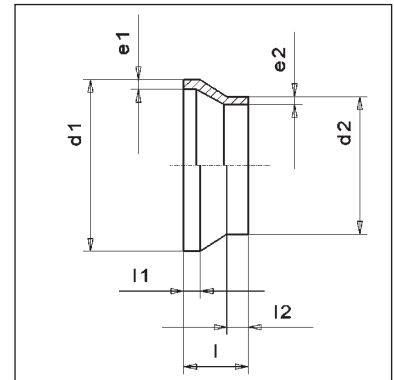
ASTM D 4101, Type 1
ASTM D4101, Type 2

Style

injected, for butt welding

Color

European Grey



Pressure Class 90 psi / SDR 17.6								
D1	D2	e1	e2	l	l1	l2	Part #	lbs
1 1/4	1/2	0.09	0.07	1.57	0.39	0.20	3314901018	0.020
1 1/4	3/4	0.09	0.07	1.57	0.39	0.24	3314901019	0.020
1 1/4	1	0.09	0.07	1.57	0.39	0.31	3314901020	0.033
1 1/2	3/4	0.11	0.07	1.97	0.47	0.24	3314901021	0.040
1 1/2	1	0.11	0.07	1.97	0.47	0.31	3314901022	0.044
1 1/2	1 1/4	0.11	0.09	1.97	0.47	0.39	3314900349	0.044
2	1	0.14	0.07	2.36	0.63	0.31	3314900350	0.075
2	1 1/4	0.14	0.09	2.36	0.63	0.39	3314900351	0.079
2	1 1/2	0.14	0.11	2.36	0.63	0.47	3314901023	0.092
2 1/2	1	0.17	0.07	2.76	1.18	0.98	3314901024	0.106
2 1/2	1 1/4	0.17	0.09	2.76	1.18	0.98	3314901025	0.139
2 1/2	1 1/2	0.17	0.11	2.76	1.18	1.10	3314901026	0.114
2 1/2	2	0.17	0.14	3.35	0.98	0.98	3314901027	0.095
3	1 1/2	0.20	0.11	2.95	0.87	0.47	3314900352	0.180
3	2	0.20	0.14	2.95	0.87	0.63	3314900353	0.194
3	2 1/2	0.20	0.17	2.95	0.87	0.75	3314900354	0.205
4	1 1/2	0.25	0.11	3.54	1.10	0.55	3314900355	0.301
4	2	0.25	0.14	4.13	1.57	1.38	3314900356	0.414
4	2 1/2	0.25	0.17	3.74	1.10	0.98	3314900357	0.319
4	3	0.25	0.20	3.94	1.57	1.57	3314900358	0.451
6	3	0.36	0.20	5.51	1.97	1.57	3314900360	1.100
6	4	0.36	0.25	5.04	1.97	1.57	3314900361	1.100
8	6	0.45	0.36	5.71	2.36	1.97	3314900364	1.958
10	6	0.56	0.36	6.69	2.36	1.97	33149002531	3.311
10	8	0.56	0.45	7.09	2.36	2.36	33149002551	3.960
12	8	0.70	0.45	9.72	3.15	1.97	33149002601	7.084
12	10	0.70	0.56	8.86	3.15	2.36	33149002621	7.216

Dimensions are in inches unless otherwise noted.

PP Reducers concentric

(Pressure Class 150 psi / SDR 11 - Pressure Class 90 psi / SDR 17.6)



Material

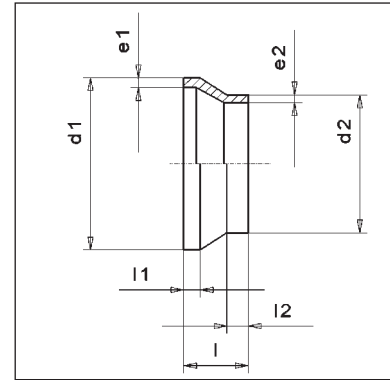
ASTM D 4101, Type 1
ASTM D4101, Type 2

Style

injected, for butt welding

Color

European Grey



Pressure Class 90 psi / SDR 17.6								
D1	D2	e1	e2	l	l1	l2	Part #	lbs
3/4	1/2	0.09	0.07	0.94	0.35	0.24	3314900997	0.011
1	1/2	0.11	0.07	1.61	0.71	0.47	3314900998	0.022
1	3/4	0.11	0.09	1.73	0.67	0.51	3314900368	0.022
1 1/4	1/2	0.15	0.07	1.97	0.71	0.51	3314900999	0.042
1 1/4	3/4	0.15	0.09	1.57	0.39	0.24	3314901000	0.037
1 1/4	1	0.15	0.11	1.57	0.39	0.31	3314901001	0.042
1 1/2	3/4	0.18	0.09	1.97	0.47	0.24	3314900369	0.053
1 1/2	1	0.18	0.11	1.97	0.47	0.31	3314900370	0.057
1 1/2	1 1/4	0.18	0.15	1.97	0.47	0.39	3314900371	0.064
2	1	0.23	0.11	2.36	0.63	0.31	3314900372	0.103
2	1 1/4	0.23	0.15	2.36	0.63	0.39	3314900373	0.114
2	1 1/2	0.23	0.18	2.36	0.63	0.47	3314900374	0.130
2 1/2	1	0.27	0.11	2.76	0.98	0.39	3314901002	0.132
2 1/2	1 1/4	0.27	0.15	2.76	1.18	0.98	3314901003	0.165
2 1/2	1 1/2	0.27	0.18	2.76	1.18	1.10	3314901004	0.161
2 1/2	2	0.27	0.23	3.15	0.98	0.98	3314901005	0.128
3	1 1/2	0.32	0.18	2.91	0.83	0.47	3314900375	0.262
3	2	0.32	0.23	2.91	0.83	0.63	3314900376	0.282
3	2 1/2	0.32	0.27	2.91	0.83	0.75	3314900377	0.312
4	1 1/2	0.39	0.18	3.54	1.10	0.55	3314900378	0.433
4	2	0.39	0.23	4.13	1.57	1.38	3314900379	0.585
4	2 1/2	0.39	0.27	3.54	1.06	0.79	3314900380	0.475
4	3	0.39	0.32	3.94	1.57	1.57	3314900381	0.647
6	3	0.57	0.32	5.51	1.97	1.57	3314900386	1.562
6	4	0.57	0.39	5.04	1.97	1.57	3314900387	1.584
8	6	0.72	0.57	5.71	2.36	1.97	3314900390	2.816
10	6	0.89	0.57	6.69	2.36	1.97	3344900314 ¹	4.730
10	8	0.89	0.72	7.09	2.36	2.36	3344900316 ¹	5.500
12	8	1.13	0.72	9.72	3.15	1.97	3344900321 ¹	9.944
12	10	1.13	0.89	8.86	3.15	2.36	3344900323 ¹	11.000

Dimensions are in inches unless otherwise noted.

PP Reducers concentric

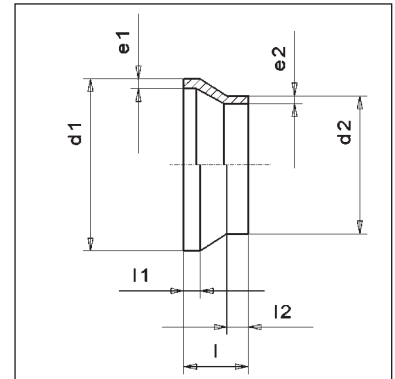
(Pressure Class 90 psi / SDR 17.6 - Pressure Class 150 psi / SDR 11)



Material
ASTM D 4101, Type 1

Style
machined, for butt
welding

Color
European Grey



D1	D2	Pressure Class 90 psi / SDR 17.6							Pressure Class 150 psi / SDR 11						
		e1	e2	l	l1	l2	Part #	lbs	e1	e2	l	l1	l2	Part #	lbs
14	10	0.79	0.56	5.12	2.13	1.57	3314900265	6.600	1.27	0.89	5.12	2.13	1.57	3314900326	9.680
14	12	0.79	0.70	4.33	2.09	1.57	3314900266	5.280	1.27	1.13	4.33	2.09	1.57	3314900328	8.140
16	10	0.89	0.56	5.91	2.40	1.57	3314900710	9.680	1.43	0.89	5.91	2.40	1.57	3314900608	14.300
16	12	0.89	0.70	4.72	1.97	1.57	3314900712	7.920	1.43	1.13	4.72	1.97	1.57	3314900329	11.660
16	14	0.89	0.79	4.33	2.01	1.57	3314900267	6.820	1.43	1.27	4.33	2.01	1.57	3314900610	10.560
18	12	1.00	0.70	5.51	2.17	1.57	3314900714	11.880	1.61	1.13	5.51	2.17	1.57	3314900612	17.600
18	14	1.00	0.79	5.12	2.24	1.57	3314900715	11.000	1.61	1.27	5.12	2.24	1.57	3314900330	16.280
18	16	1.00	0.89	4.72	2.36	1.57	3314900716	9.680	1.61	1.43	4.72	2.36	1.57	3314900613	14.520
20	12	1.12	0.70	6.69	2.80	1.57	3314900718	17.820	1.79	1.13	6.69	2.80	1.57	3314900615	26.400
20	14	1.12	0.79	5.91	2.44	1.57	3314900719	16.060	1.79	1.27	5.91	2.44	1.57	3314900331	23.760
20	16	1.12	0.89	5.51	2.56	1.57	3314900720	14.740	1.79	1.43	5.51	2.56	1.57	3314900332	22.000
20	18	1.12	1.00	4.72	2.36	1.57	3314900721	12.100	1.79	1.61	4.72	2.36	1.57	3314900616	18.260
22	16	1.25	0.89	6.30	2.68	1.57	3314900723	21.780	2.00	1.43	6.30	2.68	1.57	3314900618	32.340
22	18	1.25	1.00	5.51	2.44	1.57	3314900724	18.920	2.00	1.61	5.51	2.44	1.57	3314900619	28.380
22	20	1.25	1.12	5.12	2.64	1.57	3314900725	16.720	2.00	1.79	5.12	2.64	1.57	3314900620	25.080
24	16	1.41	0.89	7.48	3.07	1.57	3314900727	33.220	2.25	1.43	7.48	3.07	1.57	3314900622	49.060
24	18	1.41	1.00	6.69	2.83	1.57	3314900728	30.140	2.25	1.61	6.69	2.83	1.57	3314900623	44.440
24	20	1.41	1.12	5.91	2.64	1.57	3314900729	26.400	2.25	1.79	5.91	2.64	1.57	3314900624	39.160
24	22	1.41	1.25	5.12	2.52	1.57	3314900730	21.560	2.25	2.00	5.12	2.52	1.57	3314900625	32.560

Dimensions are in inches unless otherwise noted.

PP End caps

(Pressure Class 90 psi / SDR 17.6 - Pressure Class 150 psi / SDR 11)



Material

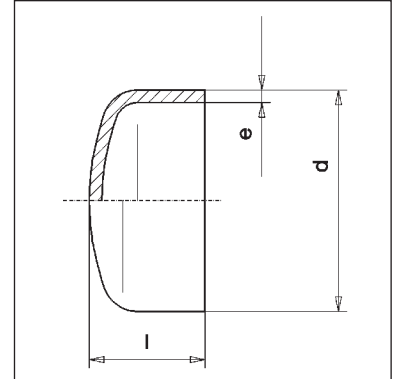
PP-R 80

Style

injected, for butt welding[†]

Color

European Grey



D	Pressure Class 90 psi / SDR 17.6				Pressure Class 150 psi / SDR 11			
	e	l	Part #	lbs	e	l	Part #	lbs
1/2					0.07	1.02	3313900064	0.009
3/4					0.09	1.02	3313900065	0.013
1	0.07	1.26	3313900116	0.015	0.11	1.38	3313900066	0.035
1 1/4	0.09	1.50	3313900103	0.040	0.15	1.38	3313900067	0.066
1 1/2	0.11	1.57	3313900104	0.081	0.18	1.57	3313900068	0.099
2	0.14	1.69	3313900069	0.132	0.23	1.69	3313900070	0.176
2 1/2	0.17	1.85	3313900105	0.132	0.27	1.85	3313900071	0.282
3	0.20	2.17	3313900072	0.308	0.32	2.17	3313900073	0.484
4	0.25	2.68	3313900106	0.484	0.39	2.68	3313900074	0.858
6	0.36	3.66	3313900078	0.880	0.57	3.66	3313900079	1.320
8	0.45	4.72	3313900108	2.838	0.72	4.72	3313900082	2.332

Dimensions are in inches unless otherwise noted.

PP End caps

(Pressure Class 90 psi / SDR 17.6 - Pressure Class 150 psi / SDR 11)

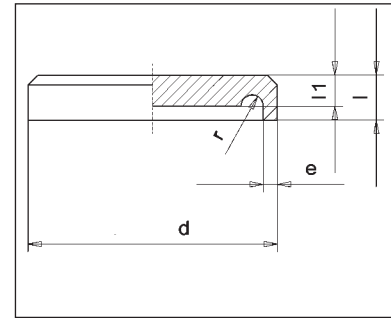


Material
ASTM D 4101, Type 1

Style
machined, for butt welding

Color
European Grey

Remark
Pressure Class 45 psi / SDR 33 on request



D	Pressure Class 90 psi / SDR 17.6					Pressure Class 150 psi / SDR 11				
	e	l	l1	Part #	lbs	e	l	l1	Part #	lbs
10	0.56	1.77	1.22	3313900139	3.344	0.89	1.97	1.46	3313900140	4.048
12	0.70	1.97	1.54	3313900143	6.468	1.13	2.36	1.83	3313900144	7.920
14	0.79	2.17	1.73	3313900145	9.174	1.27	2.56	2.07	3313900146	11.088
16	0.89	2.36	1.97	3313900147	13.112	1.43	2.76	2.32	3313900148	15.642
18	1.00	2.76	2.20	3313900149	18.744	1.61	3.15	2.62	3313900150	22.440
20	1.12	2.95	2.44	3313900151	25.520	1.79	3.35	2.93	3313900152	30.800
22	1.25	3.15	2.74	3313900153	35.200					
24	1.41	3.54	3.07	3313900154	50.380					

Dimensions are in inches unless otherwise noted.

PP Extended Leg 90° Elbows



(Pressure Class 90 psi / SDR 17.6 - Pressure Class 150 psi / SDR 11)

Material

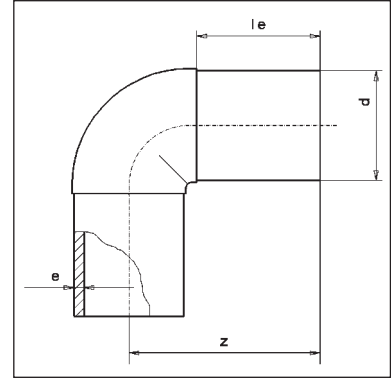
ASTM D 4101, Type 1
ASTM D4101, Type 2

Style

injected, with elongated
spigots, for butt and
IR-welding

Color

European Grey



D	Pressure Class 90 psi / SDR 17.6					Pressure Class 150 psi / SDR 11				
	e	le	z	Part #	lbs	e	le	z	Part #	lbs
1/2						0.07	1.57	2.95	3319200074	0.046
3/4						0.09	1.77	3.23	3319200075	0.073
1						0.11	1.97	3.86	3319200076	0.136
1 1/4						0.15	2.17	4.25	3319200077	0.240
1 1/2	0.11	3.15	4.41	3319200130	0.363	0.18	3.15	4.41	3319200078	0.365
2	0.14	3.15	4.57	3319200131	0.418	0.23	3.15	4.72	3319200079	0.587
2 1/2	0.17	3.46	5.16	3319200132	0.638	0.27	3.54	5.31	3319200080	0.906
3	0.20	3.46	5.63	3319200133	0.968	0.32	3.54	5.71	3319200081	1.375
4	0.25	3.86	6.30	3319200134	1.683	0.39	3.94	6.50	3319200082	2.288
6	0.36	5.43	9.25	3319200137	4.928	0.57	5.43	9.25	3319200138	7.128
8	0.45	5.91	10.43	3319200141	8.888	0.72	5.91	10.43	3319200142	12.419
10	0.56	5.12	11.61	33192003011	13.618	0.89	5.12	11.61	33192003021	19.492
12	0.70	5.91	14.76	33192003051	25.344	1.13	5.91	14.96	33192003061	38.654

Dimensions are in inches unless otherwise noted.

PP 45° Elbows



(Pressure Class 90 psi / SDR 17.6 - Pressure Class 150 psi / SDR 11)

Material

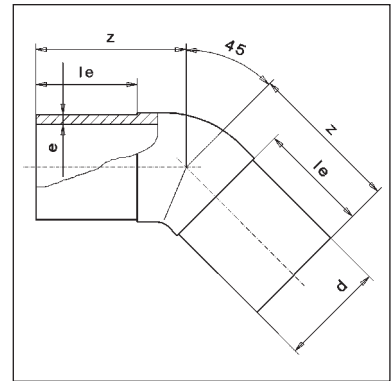
ASTM D 4101, Type 1
ASTM D4101, Type 2

Style

injected, with elongated spigots, for butt and IR-welding

Color

European Grey



D	Pressure Class 90 psi / SDR 17.6					Pressure Class 150 psi / SDR 11				
	e	le	z	Part #	lbs	e	le	z	Part #	lbs
1/2						0.07	2.01	2.76	3319200083	0.048
3/4						0.09	2.17	2.95	3319200084	0.077
1						0.11	2.72	3.54	3319200085	0.139
1 1/4						0.15	2.76	3.94	3319200086	0.220
1 1/2	0.11	2.36	4.33	3319200145	0.000	0.18	2.36	4.33	3319200087	0.264
2	0.14	2.56	4.53	3319200088	0.359	0.23	2.56	4.53	3319200089	0.477
2 1/2	0.17	2.76	5.12	3319200146	0.431	0.27	2.76	5.12	3319200090	0.638
3	0.20	3.15	5.51	3319200091	0.737	0.32	3.15	5.51	3319200092	0.990
4	0.25	3.54	6.30	3319200093	1.210	0.39	3.54	6.30	3319200094	1.705
6	0.36	5.51	9.06	3319200096	3.817	0.57	5.51	9.06	3319200097	5.423
8	0.45	5.91	10.43	3319200150	6.864	0.72	5.91	10.43	3319200151	10.175
10	0.56	5.12	8.66	3319200295 ¹	10.934	0.89	5.12	8.66	3319200296 ¹	17.358
12	0.70	5.91	9.84	3319200299 ¹	21.120	1.13	5.91	9.84	3319200300 ¹	25.718

Dimensions are in inches unless otherwise noted.

PP Seamless 90° Bends



(Pressure Class 90 psi / SDR 17.6 - Pressure Class 150 psi / SDR 11)

Material

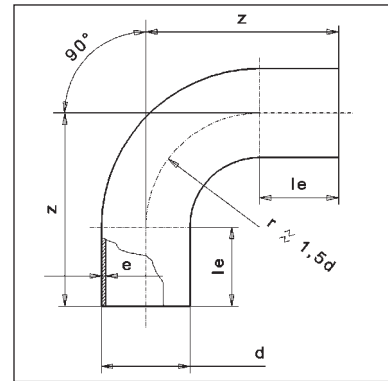
ASTM D 4101, Type 1

Style

seamless, for butt welding ($r \geq 1.5 d$), fabricated from pipe Pressure Class 150 psi / SDR 11

Color

grey - RAL 7032



D	Pressure Class 90 psi / SDR 17.6 ¹					Pressure Class 150 psi / SDR 11				
	e	le	z	Part #	lbs	e	le	z	Part #	lbs
1						0.11	3.94	5.83	3310100410	0.240
1 1/4						0.15	3.94	6.89	3310100411	0.240
1 1/2	0.11	3.94	7.68	3310101086	0.528	0.18	3.94	7.68	3310100412	0.240
2	0.14	3.94	8.66	3310101087	0.946	0.23	3.94	8.66	3310100413	0.240
2 1/2	0.17	3.94	9.37	3310101088	1.364	0.27	3.94	9.37	3310100414	0.240
3	0.20	3.94	10.24	3310100415	2.191	0.32	3.94	10.24	3310100416	0.240
4	0.25	5.91	13.39	3310100417	4.224	0.39	5.91	13.39	3310100418	0.240
6	0.36	5.91	16.34	3310100421	9.944	0.57	5.91	16.34	3310100422	0.240
8	0.45	5.91	18.70	3310101091	16.896	0.72	5.91	18.70	3310101092	0.240
10	0.56	9.84	25.59	3310101094	37.180	0.89	9.84	25.59	3310101095	0.240
12	0.70	11.81	31.61	3310101098	79.200	1.13	9.84	31.61	3310101099	0.240
14	0.79	11.81	35.43	3310102756	111.408	1.27	11.81	35.43	3310102757	0.240
16	0.89	11.81	38.58	3310102758	150.282	1.43	11.81	38.58	3310102759	0.240
18	1.00	11.81	42.13	3310102760	203.368	1.61	11.81	42.13	3310102761	0.240
20	1.12	13.78	47.24	3310102762	280.060	1.79	13.78	47.24	3310102763	0.240

Dimensions are in inches unless otherwise noted.

PP Seamless 45° Bends



(Pressure Class 90 psi / SDR 17.6¹ - Pressure Class 150 psi / SDR 11)

Material

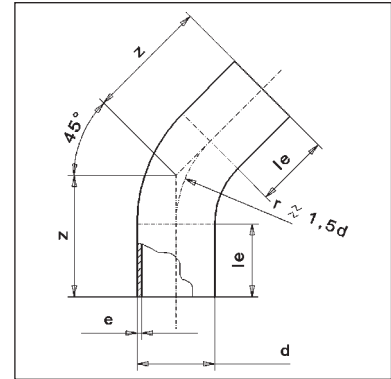
ASTM D 4101, Type 1

Style

seamless, for butt welding ($r \approx 1.5 d$), fabricated from pipe Pressure Class 150 psi / SDR 11

Color

European Grey



D	Pressure Class 90 psi / SDR 17.6 ¹					Pressure Class 150 psi / SDR 11				
	e	le	z	Part #	lbs	e	le	z	Part #	lbs
1						0.11	3.15	4.72	3310100399	0.176
1 1/4						0.15	3.15	4.72	3310101130	0.264
1 1/2	0.11	3.94	5.87	3310101131	0.440	0.18	3.94	5.87	3310100400	0.440
2	0.14	3.94	6.34	3310101132	0.770	0.23	3.94	6.34	3310100401	0.770
2 1/2	0.17	3.94	6.61	3310101133	1.144	0.27	3.94	6.61	3310100402	1.144
3	0.20	3.94	6.97	3310101134	1.716	0.32	3.94	6.97	3310100403	1.716
4	0.25	5.91	9.57	3310100404	3.300	0.39	5.91	9.57	3310100405	3.300
6	0.36	5.91	10.79	3310101137	7.172	0.57	5.91	10.79	3310100408	7.172
8	0.45	5.91	11.77	3310101140	16.192	0.72	5.91	11.77	3310101141	16.192
10	0.56	9.84	17.32	3310101143	31.240	0.89	9.84	17.32	3310101144	31.240
12	0.70	9.84	20.87	3310101147	61.600	1.13	9.84	20.87	3310101148	61.600
14	0.79	11.81	24.41	3310102772	82.566	1.27	11.81	24.41	3310102773	82.566
16	0.89	11.81	25.59	3310102774	101.376	1.43	11.81	25.59	3310102775	101.376
18	1.00	11.81	26.77	3310102776	145.882	1.61	11.81	26.77	3310102777	145.882
20	1.12	13.78	29.92	3310102778	201.278	1.79	13.78	29.92	3310102779	201.278

Dimensions are in inches unless otherwise noted.

PP Segment welded 90° Bends

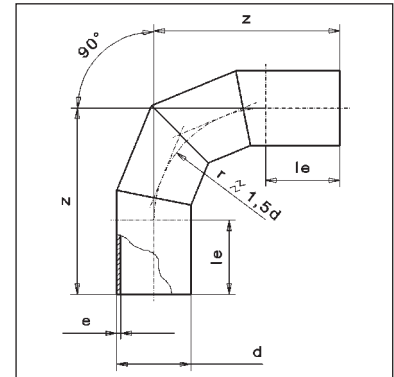


(Pressure Class 90 psi / SDR 17.6 - Pressure Class 150 psi / SDR 11)

Material
ASTM D 4101, Type 1

Style
segment welded
($r \approx 1.5 d$), for butt and
electro fusion welding

Color
European Grey



D	Pressure Class 90 psi / SDR 17.6					Pressure Class 150 psi / SDR 11				
	e	le	z	Part #	lbs	e	le	z	Part #	lbs
3	0.20	5.91	11.81	3310100825	1.474	0.32	5.91	11.81	3310100829	2.244
4	0.25	5.91	12.40	3310100826	2.486	0.39	5.91	12.40	3310100830	3.784
6	0.36	5.91	15.35	3310100833	6.358	0.57	5.91	15.35	3310100834	9.746
8	0.45	5.91	17.72	3310100837	11.880	0.72	5.91	17.72	3310100838	17.314
10	0.56	9.84	24.61	3310100841	24.860	0.89	9.84	24.61	3310100842	38.060
12	0.70	11.81	30.43	3310100845	48.180	1.13	11.81	30.43	3310100846	74.360
14	0.79	11.81	32.80	3310100847	65.780	1.27	11.81	32.80	3310100848	101.200
16	0.89	11.81	35.43	3310100849	89.540	1.43	11.81	35.43	3310100850	137.940
18	1.00	11.81	38.39	3310100103	121.880	1.61	11.81	38.39	3310100104	187.660
20	1.11	13.78	43.31	3310100851	170.280	1.79	13.78	43.31	3310100852	270.600
22	1.25	13.78	46.85	3310100853	229.900					
24	1.41	13.78	50.98	3310100854	315.260					

Dimensions are in inches unless otherwise noted.

PP Segment welded 45° Bends



(Pressure Class 90 psi / SDR 17.6 - Pressure Class 150 psi / SDR 11)

Material

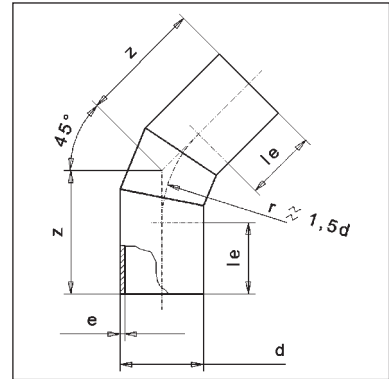
ASTM D 4101, Type 1

Style

segment welded
($r \approx 1,5 d$), for butt and
electro fusion welding

Color

European Grey



D	Pressure Class 90 psi / SDR 17.6					Pressure Class 150 psi / SDR 11				
	e	le	z	Part #	lbs	e	le	z	Part #	lbs
3	0.20	5.91	8.15	3310100935	1.056	0.32	5.91	8.15	3310100936	1.606
4	0.25	5.91	8.58	3310100939	1.914	0.39	5.91	8.58	3310100940	2.882
6	0.36	5.91	9.80	3310100951	4.554	0.57	5.91	9.80	3310100952	6.974
8	0.45	5.91	10.79	3310100959	7.854	0.72	5.91	10.79	3310100960	11.968
10	0.56	9.84	16.22	3310100967	17.996	0.89	9.84	16.22	3310100968	27.500
12	0.70	11.81	19.61	3310100975	34.540	1.13	11.81	19.61	3310100976	53.460
14	0.79	11.81	20.47	3310100979	46.200	1.27	11.81	20.47	3310100980	71.060
16	0.89	11.81	21.57	3310100983	61.820	1.43	11.81	21.57	3310100984	95.040
18	1.00	11.81	22.83	3310100987	82.280	1.61	11.81	22.83	3310100988	126.940
20	1.11	13.78	26.18	3310100991	115.720	1.79	13.78	26.18	3310100992	191.840
22	1.25	13.78	27.48	3310100995	153.120					
24	1.41	13.78	29.17	3310100998	205.260					

Dimensions are in inches unless otherwise noted.

PP/steel Backing Rings, ANSI



Material

polypropylene (PP) with glass-fibre reinforcement, steel insert

Dimensions

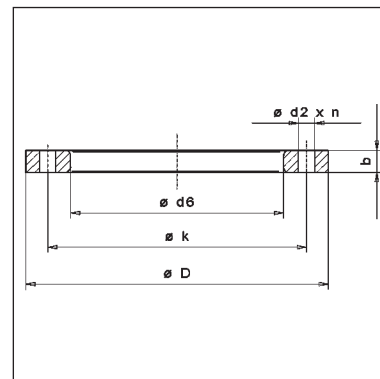
ANSI B 16.5 150 lbs

Color

grey

Remark

drilled acc. to ANSI B16.5 - 150 lbs



Anschluss		gebohrt		belastbar		gebohrt nach ANSI B 16,5 - 150 lbs					Part #	lbs
D	Inch	lbs	lbs	b	D	d2	d6	k	n			
1/2	1/2	150	150	0.47	3.50	0.63	1.10	2.37	0.16	3313000047	0.484	
3/4	3/4	150	150	0.47	3.86	0.63	1.34	2.75	0.16	3313000048	0.660	
1	1	150	150	0.63	4.25	0.63	1.65	3.13	0.16	3313000049	0.970	
1 1/4	1 1/4	150	150	0.63	4.61	0.63	2.01	3.50	0.16	3313000050	1.188	
1 1/2	1 1/2	150	150	0.71	5.00	0.63	2.44	3.87	0.16	3313000051	1.254	
2	2	150	150	0.71	5.98	0.75	3.07	4.75	0.16	3313000052	1.782	
2 1/2	2 1/2	150	150	0.71	7.01	0.75	3.50	5.50	0.16	3313000053	2.418	
3	3	150	150	0.71	7.48	0.75	4.33	6.00	0.16	3313000054	2.330	
4	4	150	150	0.71	9.02	0.75	5.04	7.50	0.31	3313000055	4.048	
6	6	150	150	0.94	10.98	0.87	7.17	9.50	0.31	3313000056	6.435	
8	8	150	150	0.94	13.50	0.87	9.37	11.75	0.31	3313000057	10.256	
10	10	150	150	1.18	15.98	1.00	11.54	14.25	0.47	3313000058	12.628	
12	12	150	150	1.34	19.02	1.00	13.31	17.00	0.47	3313000059	26.224	
14	14	150	150	1.65	21.26	1.12	14.80	18.75	0.47	3313000074	34.540	
16	16	150	150	1.73	23.46	1.12	16.93	21.25	0.63	3313000209	38.720	

Dimensions are in inches unless otherwise noted.

PP Extended Leg Tees



(Pressure Class 90 psi / SDR 17.6 - Pressure Class 150 psi / SDR 11)

Material

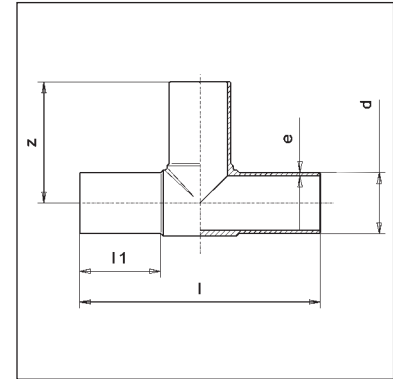
ASTM D 4101, Type 1
ASTM D4101, Type 2

Style

injected, with elongated spigots, for butt and IR- welding

Color

European Grey



D	Pressure Class 90 psi / SDR 17.6						Pressure Class 150 psi / SDR 11					
	e	I	I1	z	Part #	lbs	e	I	I1	z	Part #	lbs
1/2							0.07	4.17	1.46	2.05	3319300095	0.044
3/4							0.09	4.72	1.57	2.36	3319300094	0.088
1							0.11	5.35	1.73	2.68	3319300083	0.154
1 1/4							0.15	6.34	1.93	3.11	3319300064	0.253
1 1/2							0.18	7.40	2.24	3.62	3319300099	0.440
2	0.14	8.50	2.36	4.25	3319300097	0.594	0.23	8.50	2.36	4.25	3319300100	0.814
2 1/2	0.17	9.84	2.64	4.80	3319300098	1.100	0.27	9.84	2.64	4.80	3319300101	1.386
3	0.20	10.71	2.99	5.31	3319300116	1.474	0.32	10.71	3.03	5.31	3319300109	2.013
4	0.25	12.52	3.43	6.26	3319300117	2.486	0.39	12.52	3.43	6.26	3319300110	3.619
6	0.36	16.06	3.98	8.07	3319300120	6.644	0.57	16.06	3.98	8.07	3319300112	9.042
8	0.45	19.69	4.80	9.84	3319300122	12.320	0.72	19.69	4.80	9.84	3319300114	16.522
10	0.56	22.64	5.00	11.34	3319300044 ¹	22.220	0.89	22.64	5.00	11.34	3349300047 ¹	28.820
12	0.70	27.36	5.91	13.62	3319300050 ¹	35.200	1.13	27.36	5.91	13.62	3349300048 ¹	41.800

Dimensions are in inches unless otherwise noted.

PP Tees, segment welded



(Pressure Class 45 psi / SDR 33 - Pressure Class 90 psi / SDR 17.6)

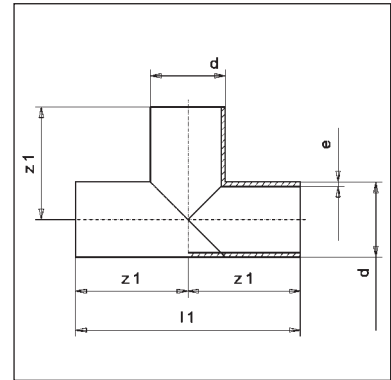
(Pressure Class 150 psi / SDR 11)

Material
ASTM D 4101, Type 1

Style
segment welded,
for butt welding

Color
European Grey

Remark
welded tees without
reinforcement:
pressure reduction
factor 0,65;
tees with reinforcement
on request.



D	e	Pressure Class 45 psi / SDR 33				lbs	e	Pressure Class 90 psi / SDR 17.6				lbs
		l1	z1	Part #	l1			z1	Part #			
3	0.11	15.35	7.68	3310300425	0.550	0.20	15.35	7.68	3310300426	1.738		
4	0.13	16.14	8.07	3310300429	1.474	0.25	16.14	8.07	3310300430	2.552		
6	0.19	18.11	9.06	3310300441	3.300	0.36	18.11	9.06	3310300442	5.830		
8	0.24	19.69	9.84	3310300449	5.478	0.45	19.69	9.84	3310300450	9.922		
10	0.30	29.53	14.76	3310300457	13.156	0.56	29.53	14.76	3310300458	23.100		
12	0.38	36.22	18.11	3310300465	25.300	0.70	36.22	18.11	3310300466	44.880		
14	0.43	37.80	18.90	3310300469	33.440	0.79	37.80	18.90	3310300470	56.760		
16	0.48	39.37	19.69	3310300473	43.340	0.89	39.37	19.69	3310300474	77.880		
18	0.54	41.34	20.67	3310300477	56.980	1.00	41.34	20.67	3310300478	97.680		
20	0.60	47.24	23.62	3310300480	80.520	1.12	47.24	23.62	3310300481	132.625		
22	0.68	49.61	24.80	3310300483	100.760	1.25	49.61	24.80	3310300484	179.960		
24	0.76	52.36	26.18	3310300485	139.040	1.41	52.36	26.18	3310300487	237.600		

D	e	Pressure Class 150 psi / SDR 11				lbs
		l1	z1	Part #		
3	0.32	15.35	7.68	3310300427	2.662	
4	0.39	16.14	8.07	3310300431	3.872	
6	0.57	18.11	9.06	3310300443	8.932	
8	0.72	19.69	9.84	3310300451	14.850	
10	0.89	29.53	14.76	3310300459	35.640	
12	1.13	36.22	18.11	3310300467	69.080	
14	1.27	37.80	18.90	3310300471	87.560	
16	1.43	39.37	19.69	3310300475	114.620	
18	1.61	41.34	20.67	3310300241	150.700	
20	1.79	47.24	23.62	3310300242	228.800	

Dimensions are in inches unless otherwise noted.

PP Extended Leg Reducing Tees



(Pressure Class 90 psi / SDR 17.6)

(Pressure Class 150 psi / SDR 11)

Material

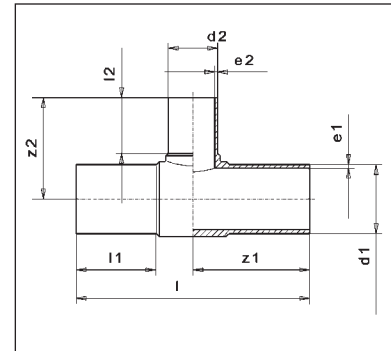
ASTM D 4101, Type 1
ASTM D4101, Type 2

Style

injected, with elongated spigots, for butt and IR-welding

Color

European Grey



Pressure Class 90 psi / SDR 17.6										
D1	D2	e1	e2	l	l1	l2	z1	z2	Part #	lbs
2	1 1/2	0.14	0.11	8.54	2.40	2.20	4.25	4.06	3313500452 ¹	0.484
2 1/2	1 1/2	0.17	0.11	9.92	2.68	2.20	4.96	4.29	3313500454 ¹	0.836
2 1/2	2	0.17	0.14	9.92	2.72	2.44	4.96	4.57	3313500455 ¹	0.924
3	1 1/2	0.20	0.11	10.71	3.11	2.28	5.31	4.61	3322300019	1.100
3	2	0.20	0.14	10.71	3.11	2.56	5.31	4.84	3322300020	1.232
3	2 1/2	0.20	0.17	10.71	2.91	2.80	5.35	5.47	3313500456 ¹	1.276
4	2	0.25	0.14	12.52	3.39	2.56	6.26	5.79	3313500149	2.112
4	2 1/2	0.25	0.17	12.40	3.31	2.76	6.22	5.98	3313500458 ¹	1.870
4	3	0.25	0.20	12.52	3.39	3.15	6.26	6.22	3313500150	1.980
6	2	0.36	0.14	12.99	3.39	1.30	6.50	5.12	3313500461 ¹	4.136
6	2 1/2	0.36	0.17	13.50	3.86	2.91	6.77	7.09	3313500462 ¹	4.136
6	3	0.36	0.20	16.14	3.98	3.11	8.07	7.40	3322300026	4.402
6	4	0.36	0.25	16.14	3.98	3.35	8.07	7.68	3313500151	5.280

Pressure Class 150 psi / SDR 11										
D1	D2	e1	e2	l	l1	l2	z1	z2	Part #	lbs
2	1 1/2	0.23	0.18	8.46	2.48	2.20	4.25	4.06	3313500143 ¹	0.660
2 1/2	1	0.27	0.11	10.08	2.76	1.81	5.04	4.25	3313500330 ¹	1.078
2 1/2	1 1/2	0.27	0.18	9.96	2.76	2.20	5.00	4.45	3313500331 ¹	1.188
2 1/2	2	0.27	0.23	10.04	2.76	2.48	5.04	4.61	3313500144 ¹	1.232
3	1 1/2	0.32	0.18	10.71	3.11	2.28	5.31	4.61	3313500152	1.496
3	2	0.32	0.23	10.71	3.11	2.56	5.31	4.84	3313500153	1.716
3	2 1/2	0.32	0.27	10.71	2.87	2.68	5.35	5.43	3313500145 ¹	1.760
4	2	0.39	0.23	12.60	3.43	2.56	6.26	5.79	3313500154	2.750
4	2 1/2	0.39	0.27	12.17	3.23	2.76	6.10	5.94	3313500146 ¹	2.200
4	3	0.39	0.32	12.52	3.39	3.15	6.26	6.22	3313500155	3.168
6	2	0.57	0.23	13.50	3.86	2.56	6.77	6.93	3313500147 ¹	5.896
6	2 1/2	0.57	0.27	13.50	3.86	2.91	6.77	7.09	3313500335 ¹	5.808
6	3	0.57	0.32	16.06	3.98	3.11	8.07	7.40	3313500156	5.896
6	4	0.57	0.39	16.06	3.98	3.35	8.07	7.68	3313500157	7.260

Dimensions are in inches unless otherwise noted.

PP Concentric Reducers



(Pressure Class 90 psi / SDR 17.6 - Pressure Class 150 psi / SDR 11)

Material

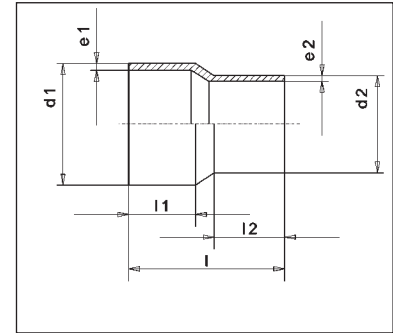
ASTM D 4101, Type 1
ASTM D4101, Type 2

Style

injected, with elongated spigots, for butt and IR-welding

Color

European Grey



D1	D2	Pressure Class 90 psi / SDR 17.6							Pressure Class 150 psi / SDR 11						
		e1	e2	I	I1	I2	Part #	lbs	e1	e2	I	I1	I2	Part #	lbs
3/4	1/2								0.09	0.07	3.74	1.77	1.57	3319700105 ¹	0.040
1	1/2								0.11	0.07	4.13	1.77	1.57	3319700102 ¹	0.053
1	3/4								0.11	0.09	4.13	1.77	1.77	3319700063 ¹	0.062
1 1/4	1/2								0.15	0.07	4.53	1.97	1.77	3319700064 ¹	0.077
1 1/4	3/4								0.15	0.09	4.53	1.97	1.57	3319700065 ¹	0.088
1 1/4	1								0.15	0.11	4.53	1.97	1.77	3319700066 ¹	0.088
1 1/2	3/4								0.18	0.09	4.96	2.17	1.54	3319700160	0.132
1 1/2	1								0.18	0.11	5.04	2.17	1.69	3319700161	0.145
1 1/2	1 1/4								0.18	0.15	5.20	2.17	1.93	3319700162	0.163
2	1								0.23	0.11	5.59	2.48	1.69	3319700163	0.246
2	1 1/4								0.23	0.15	5.75	2.48	1.93	3319700164	0.262
2	1 1/2								0.23	0.18	5.91	2.48	2.17	3319700165	0.297
2 1/2	1 1/2								0.27	0.18	5.91	2.56	2.24	3319700073 ¹	0.396
2 1/2	2	0.17	0.14	6.50	2.76	2.48	3319700181	0.356	0.27	0.23	6.50	2.76	2.48	3319700184	0.504
3	2	0.20	0.14	7.17	3.11	2.76	3319700176	0.495	0.32	0.23	7.28	3.11	2.76	3319700167	0.695
3	2 1/2	0.20	0.17	7.28	3.11	2.76	3319700177	0.440	0.32	0.27	7.20	3.11	2.76	3319700168	0.761
4	2	0.25	0.14	7.28	3.35	2.76	3319700232	0.671	0.39	0.23	7.28	3.35	2.64	3319700245	0.968
4	3	0.25	0.20	7.28	3.35	3.11	3319700233	0.770	0.39	0.32	7.28	3.35	3.11	3319700246	1.133
6	3	0.36	0.20	9.84	4.72	3.15	3319700203	3.300	0.57	0.32	9.84	4.72	3.15	3319700204	2.706
6	4	0.36	0.25	9.84	4.72	3.54	3319700206	2.013	0.57	0.39	9.84	4.72	3.54	3319700205	2.926
8	6	0.45	0.36	10.83	4.72	4.72	3319700207	2.200	0.72	0.57	10.83	4.72	4.72	3319700089 ¹	5.346
10	6	0.56	0.36	11.42	5.12	3.94	3319700058 ¹	5.753	0.89	0.57	11.42	5.12	3.94	3319700093 ¹	8.151
10	8	0.56	0.45	11.89	5.12	4.41	3319700060 ¹	7.788	0.89	0.72	11.89	5.12	4.57	3319700095 ¹	9.636
12	10	0.70	0.56	14.37	5.91	5.12	3319700062 ¹	12.177	1.13	0.89	14.37	5.91	5.12	3319700097 ¹	17.820

Dimensions are in inches unless otherwise noted.

PP End caps

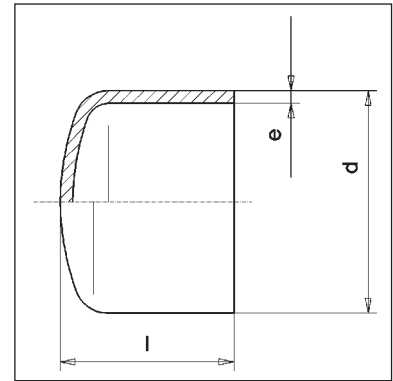


(Pressure Class 90 psi / SDR 17.6 - Pressure Class 150 psi / SDR 11)

Material
 ASTM D 4101, Type 1
 ASTM D4101, Type 2

Style
 injected, with elongated
 spigots, for butt and
 IR-welding

Color
 European Grey



D	Pressure Class 90 psi / SDR 17.6				Pressure Class 150 psi / SDR 11			
	e	l	Part #	lbs	e	l	Part #	lbs
1/2					0.07	1.65	3313900109 ¹	0.013
3/4					0.09	1.89	3313900110 ¹	0.022
1					0.11	2.17	3319600093	0.037
1 1/4					0.15	2.40	3319600034	0.062
1 1/2	0.11	2.76	3319600035	0.079	0.18	2.76	3319600030	0.112
2	0.14	3.23	3319600036	0.145	0.23	3.23	3313900037	0.207
2 1/2	0.17	3.62	3319600094	0.231	0.27	3.62	3313900031	0.323
3	0.20	4.13	3319600038	0.374	0.32	3.94	3313900039	0.506
4	0.25	4.72	3319600040	0.601	0.39	4.72	3313900032	0.880
6	0.36	5.91	3319600050	1.650	0.57	5.91	3319600051	2.398
8	0.45	6.89	3319600046	2.992	0.72	6.89	3319600026	4.158
10	0.56	8.07	3319600063 ¹	5.115	0.89	8.07	3319600064 ¹	5.940
12	0.70	10.04	3319600067 ¹	9.900	1.13	10.04	3319600068 ¹	14.520

Dimensions are in inches unless otherwise noted.

PP Extended Leg Female Adapter



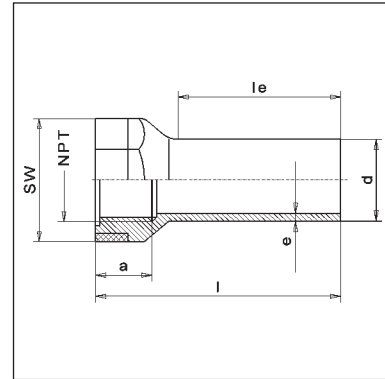
(Pressure Class 150 psi / SDR 11)

Material
ASTM D 4101, Type 1

Style
injected, with elongated spigots, for IR-/butt welding

Color
European Grey

Remark
with conical threaded female end NPT; max. admissible operating overpressure for water at + 20 °C up to 8 bar



Pressure Class 150 psi / SDR 11								
D	NPT	e	a	sw	l	le	Part #	lbs
1/2	1/2"	0.07	0.63	1.18	2.28	1.46	3318800007	0.035
3/4	3/4"	0.09	0.71	1.42	2.48	1.57	3318800008	0.048
1	1"	0.11	0.83	1.81	2.80	1.73	3318800009	0.088
1 1/4	1 1/4"	0.15	0.91	2.17	3.11	1.93	3318800010	0.128
1 1/2	1 1/2"	0.18	0.94	2.36	3.31	2.17	3318800011	0.174
2	2"	0.23	0.98	2.95	3.82	2.72	3318800012	0.328

Dimensions are in inches unless otherwise noted.

PP Extended Leg Male Adapter



(Pressure Class 150 psi / SDR 11)

Material

ASTM D 4101, Type 1

Style

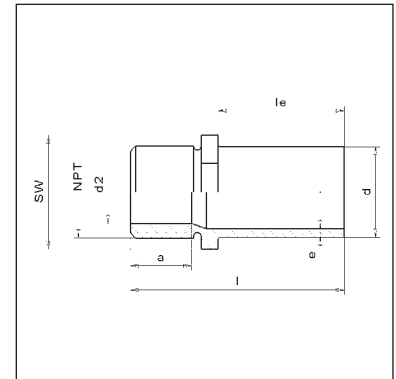
injected, with elongated spigots, for IR-/butt welding

Color

European Grey

Remark

with conical threaded male end NPT; max. admissible operating overpressure for water at +20 °C up to 8 bar



Pressure Class 150 psi / SDR 11									
D	NPT	e	a	d2	l	le	sw	Part #	lbs
1/2	1/2"	0.07	0.59	0.51	2.36	1.46	0.94	3318900007	0.020
3/4	3/4"	0.09	0.59	0.71	2.44	1.57	1.06	3318900008	0.029
1	1"	0.11	0.75	0.91	2.76	1.73	1.42	3318900009	0.048
1 1/4	1 1/4"	0.15	0.79	1.14	2.99	1.93	1.81	3318900010	0.084
1 1/2	1 1/2"	0.18	0.83	1.34	3.31	2.17	2.17	3318900011	0.128
2	2"	0.23	0.87	1.77	3.66	2.48	2.56	3318900012	0.211

Dimensions are in inches unless otherwise noted.

PP Extended Leg Unions

(Pressure Class 150 psi / SDR 11)

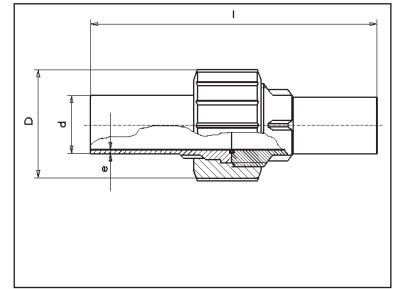


Material
ASTM D 4101, Type 1
EPDM (seal)

Style
injected, with elongated
spigots, for IR-/butt
welding

Color
European Grey

Remark
max. admissible
operating overpressure
for water at +20 °C up to
8 bar



Pressure Class 150 psi / SDR 11							
D	e	D	l	le1	le2	Part #	lbs
1/2	0.07	1.85	4.13	0.94	1.46	3319500007	0.121
3/4	0.09	2.24	4.33	0.94	1.50	3319500008	0.187
1	0.11	2.52	4.65	0.94	1.54	3319500009	0.251
1 1/4	0.15	3.07	4.84	0.94	1.61	3319500010	0.429
1 1/2	0.18	3.50	5.08	0.94	1.73	3319500011	0.601
2	0.23	4.29	5.31	0.94	1.73	3319500012	0.990

Dimensions are in inches unless otherwise noted.



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