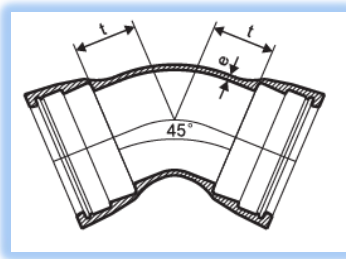
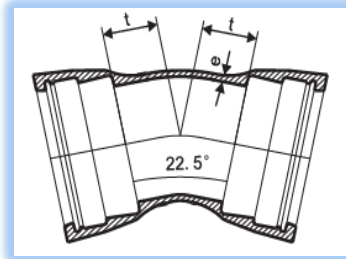


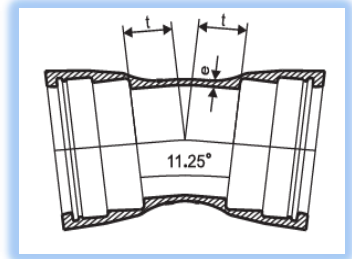
90deg. Bend



45deg. Bend



22½deg. Bend



11¼deg. Bend

Nominal Dia. (DN)	e	r		90deg		45deg		22½deg		11¼deg	
		90	45 22½ 11¼	t	App. Mass	t	App. Mass	t	App. Mass	t	App. Mass
80	10.0	137.0	280	180	18	159	18	99	16	71	15
100	10.5	155.0	300	200	24	169	24	105	21	75	19
125	11.1	177.0	325	225	33	182	32	112	27	80	25
150	11.7	200.0	350	250	43	195	41	120	35	84	32
200	12.8	245.0	400	300	67	221	62	135	53	94	48
250	14.0	290.0	450	350	98	246	89	150	75	104	67
300	15.2	335.0	500	400	135	272	121	164	100	114	89
350	16.3	380.0	550	450	181	293	159	179	130	124	115
400	17.5	425.0	600	500	234	324	202	194	164	134	144
450	18.7	470.0	650	550	290	349	248	209	197	144	172
500	19.8	515.0	700	600	370	375	310	224	246	154	215
600	22.2	605.0	800	700	546	426	448	254	351	174	302
700	24.5	695.0	900	800	770	478	619	284	478	194	408
750	25.6	740.0	950	850	899	503	716	299	551	203	469
800	26.8	785.0	1000	900	1047	529	827	314	632	213	534
900	29.2	875.0	1100	1000	1389	581	1077	344	813	233	682
1000	31.5	965.0	1200	1100	1780	632	1368	374	1024	253	852
1050	32.6	1010	1250	1150	2012	660	1540	386	1145	262	950
1100	33.8	1055	1300	1200	2246	683	1706	404	1267	272	1047
1200	36.2	1145	1400	1300	2792	735	2099	433	1547	292	1270
1500	43.2	1415	1700	1600	4951	889	3639	523	2652	352	2158