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Product Datasheet MHT2873

PowerProtect Black

General

Ementelle PowerProtect PE ducts are made of PE Material and are suitable for cable protection. The ducts are manufactured with tolerances according to DIN EN12201. Ementelle PowerProtect PE ducts are smooth in- and outside and suitable for Fusion-Butt-Welding.

Raw Materials

Material PE100, PE100 Re grind and HDPE raw materials are used

Dimensions PowerProtect SDR21 BLACK

Product Code	Product Description	Supply Length	Metre / Frame
300616-12	110x5,3mm PowerProtect SDR21, 12m	12m	576m
300617-12	125x6mm PowerProtect SDR21, 12m	12m	408m
300618-12	140x6,7mm PowerProtect SDR21, 12m	12m	312m
300619-12	160x7,7mm PowerProtect SDR21, 12m	12m	240m
300620-12	180x8,6mm PowerProtect SDR21, 12m	12m	204m
300621-12	200x9,6mm PowerProtect SDR21, 12m	12m	168m
300622-12	225x10,8mm PowerProtect SDR21, 12m	12m	168m
300623-12	250x11,9mm PowerProtect SDR21, 12m	12m	84m
300624-12	280x13,4mm PowerProtect SDR21, 12m	12m	48m
300625-12	315x15mm PowerProtect SDR21, 12m	12m	36m
300626-12	355x16,9mm PowerProtect SDR21, 12m	12m	36m
300627-12	400x19,1mm PowerProtect SDR21, 12m	12m	36m
300628-12	450x21,5mm PowerProtect SDR21, 12m	12m	24m
300629-12	500x23,9mm PowerProtect SDR21, 12m	12m	24m
300630-12	560x26,7mm PowerProtect SDR21, 12m	12m	24m
300631-12	630x30mm PowerProtect SDR21, 12m	12m	12m
300632-12	710x33,9mm PowerProtect SDR21, 12m	12m	12m
300633-12	800x38,1mm PowerProtect SDR21, 12m	12m	12m

Other supply lengths available on request

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Dimensions PowerProtect SDR17.6 BLACK

Product Code	Product Description	Supply Length	Metre / Frame
300634-12	110x6,3mm PowerProtect SDR17.6, 12m	12m	576m
300635-12	125x7,1mm PowerProtect SDR17.6, 12m	12m	408m
300636-12	140x8,0mm PowerProtect SDR17.6, 12m	12m	312m
300637-12	160x9,1mm PowerProtect SDR17.6, 12m	12m	240m
300638-12	180x10,2mm PowerProtect SDR17.6, 12m	12m	204m
300639-12	200x11,4mm PowerProtect SDR17.6, 12m	12m	168m
300640-12	225x12,8mm PowerProtect SDR17.6, 12m	12m	168m
300641-12	250x14,2mm PowerProtect SDR17.6, 12m	12m	84m
300642-12	280x15,9mm PowerProtect SDR17.6, 12m	12m	48m
300643-12	315x17,9mm PowerProtect SDR17.6, 12m	12m	36m
300644-12	355x20,1mm PowerProtect SDR17.6, 12m	12m	36m
300645-12	400x22,7mm PowerProtect SDR17.6, 12m	12m	36m
300646-12	450x25,5mm PowerProtect SDR17.6, 12m	12m	24m
300647-12	500x28,3mm PowerProtect SDR17.6, 12m	12m	24m
300648-12	560x31,7mm PowerProtect SDR17.6, 12m	12m	24m
300649-12	630x35,7mm PowerProtect SDR17.6, 12m	12m	12m
300650-12	710x40,2mm PowerProtect SDR17.6, 12m	12m	12m
300651-12	800x45,3mm PowerProtect SDR17.6, 12m	12m	12m

Other supply lengths available on request

Dimensions PowerProtect SDR11 Black

Product Code	Product Description	Supply Length	Metre / Frame
300652-12	110x10mm PowerProtect SDR11, 12m	12m	576m
300653-12	125x11,4mm PowerProtect SDR11, 12m	12m	408m
300654-12	140x12,7mm PowerProtect SDR11, 12m	12m	312m
300655-12	160x14,6mm PowerProtect SDR11, 12m	12m	240m
300656-12	180x16,4mm PowerProtect SDR11, 12m	12m	204m
300657-12	200x18,2mm PowerProtect SDR11, 12m	12m	168m
300658-12	225x20,5mm PowerProtect SDR11, 12m	12m	168m
300659-12	250x22,7mm PowerProtect SDR11, 12m	12m	84m
300660-12	280x25,4mm PowerProtect SDR11, 12m	12m	48m
300661-12	315x28,6mm PowerProtect SDR11, 12m	12m	36m
300662-12	355x32,2mm PowerProtect SDR11, 12m	12m	36m
300663-12	400x36,3mm PowerProtect SDR11, 12m	12m	36m
300664-12	450x40,9mm PowerProtect SDR11, 12m	12m	24m
300665-12	500x45,4mm PowerProtect SDR11, 12m	12m	24m
300666-12	560x50,8mm PowerProtect SDR11, 12m	12m	24m
300667-12	630x57,2mm PowerProtect SDR11, 12m	12m	12m

Other supply lengths available on request

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Pipe Performance

Physical Properties:

Test	Standard	Result
Impact test 5kg	DS EN 61386	OK
Elongation at Break	EN ISO 6259	>350%
Yield Stress	EN ISO 6259	>20MPa
Compression	DS EN 61386	>750N
Ring stiffness	ISO 9969	See tables below
Longitudinal reversion	EN ISO 2505	<3%
OIT ≥ 20 min	ISO 11357	OK

The pipes shall have dimensions (mm) as defined above, in addition other non-standard dimensions can be chosen,

The weight (mass) of the pipe shall be nominally calculated for 1m pipe

$(OD - wt) \times wt \times \pi \times density$ Where:

OD (outside diameter) and wt (wall thickness) is in mm, and density for PE material is 0.96 g/cm³.

SDR 21												
OD [mm]	WT [mm]	ID [mm]	ODmin [mm]	ODmax [mm]	Ovality	WTmin [mm]	WTmax [mm]	Weight [kg/m]	Min Bend Radius [mm] @ 20 ° C	Ring Stiffness SN {kN/m ² }	Max Install tension [kN] @ 20 ° C	Max Install tension [kg] @ 20 ° C
110	5,3	99,4	110,0	110,7	2,2	5,3	6,0	1,67	2.750	TBC	16,74	1.704,25
125	6,0	113,0	125,0	125,8	2,5	6,0	6,7	2,15	3.125	TBC	21,53	2.192,84
140	6,7	126,6	140,0	140,9	2,8	6,7	7,5	2,69	3.500	TBC	26,94	2.742,93
160	7,7	144,6	160,0	161,0	3,2	7,7	8,6	3,54	4.000	TBC	35,37	3.601,64
180	8,6	162,8	180,0	181,1	3,6	8,6	9,6	4,44	4.500	TBC	44,46	4.527,09
200	9,6	180,8	200,0	201,2	4,0	9,6	10,7	5,51	5.000	TBC	55,13	5.613,68
225	10,8	203,4	225,0	226,4	4,5	10,8	12,0	6,97	5.625	TBC	69,77	7.104,82
250	11,9	226,2	250,0	251,5	5,0	11,9	13,2	8,54	6.250	TBC	85,45	8.701,94
280	13,4	253,2	280,0	281,7	5,0	13,4	14,9	10,77	7.000	TBC	107,74	10.971,72
315	15,0	285,0	315,0	316,9	5,0	15,0	16,6	13,56	7.875	TBC	135,72	13.820,45
355	16,9	321,2	355,0	357,2	6,0	16,9	18,7	17,22	8.875	TBC	172,33	17.548,56
400	19,1	361,8	400,0	402,4	7,0	19,1	21,2	21,93	10.000	TBC	219,41	22.343,64
450	21,5	407,0	450,0	452,7	8,0	21,5	23,8	27,77	11.250	TBC	277,85	28.294,30
500	23,9	452,2	500,0	503,0	8,0	23,9	26,4	34,30	12.500	TBC	343,18	34.946,66
560	26,7	506,6	560,0	563,4	8,0	26,7	29,5	42,92	14.000	TBC	429,44	43.731,31
630	30,0	570,0	630,0	633,8	9,0	30,0	33,1	54,26	15.750	TBC	542,87	55.281,79
710	33,9	642,2	710,0	716,4	9,0	33,9	37,4	69,09	17.750	TBC	691,24	70.391,51
800	38,1	723,8	800,0	807,2	10,0	38,1	42,1	87,50	20.000	TBC	875,48	89.152,30

* Note that “.” separates for decimals and “.” separates for thousands

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SDR 17.6												
OD [mm]	WT [mm]	ID [mm]	ODmin [mm]	ODmax [mm]	Ovality	WTmin [mm]	WTmax [mm]	Weight [kg/m]	Min Bend Radius [mm] @ 20 °C	Ring Stiffness SN {kN/m ² }	Max Install tension [kN] @ 20 °C	Max Install tension [kg] @ 20 °C
110	5,3	99,4	110,0	110,7	2,2	5,3	6,0	1,67	2.750	TBC	16,74	1.704,25
125	6,0	113,0	125,0	125,8	2,5	6,0	6,7	2,15	3.125	TBC	21,53	2.192,84
140	6,7	126,6	140,0	140,9	2,8	6,7	7,5	2,69	3.500	TBC	26,94	2.742,93
160	7,7	144,6	160,0	161,0	3,2	7,7	8,6	3,54	4.000	TBC	35,37	3.601,64
180	8,6	162,8	180,0	181,1	3,6	8,6	9,6	4,44	4.500	TBC	44,46	4.527,09
200	9,6	180,8	200,0	201,2	4,0	9,6	10,7	5,51	5.000	TBC	55,13	5.613,68
225	10,8	203,4	225,0	226,4	4,5	10,8	12,0	6,97	5.625	TBC	69,77	7.104,82
250	11,9	226,2	250,0	251,5	5,0	11,9	13,2	8,54	6.250	TBC	85,45	8.701,94
280	13,4	253,2	280,0	281,7	5,0	13,4	14,9	10,77	7.000	TBC	107,74	10.971,72
315	15,0	285,0	315,0	316,9	5,0	15,0	16,6	13,56	7.875	TBC	135,72	13.820,45
355	16,9	321,2	355,0	357,2	6,0	16,9	18,7	17,22	8.875	TBC	172,33	17.548,56
400	19,1	361,8	400,0	402,4	7,0	19,1	21,2	21,93	10.000	TBC	219,41	22.343,64
450	21,5	407,0	450,0	452,7	8,0	21,5	23,8	27,77	11.250	TBC	277,85	28.294,30
500	23,9	452,2	500,0	503,0	8,0	23,9	26,4	34,30	12.500	TBC	343,18	34.946,66
560	26,7	506,6	560,0	563,4	8,0	26,7	29,5	42,92	14.000	TBC	429,44	43.731,31
630	30,0	570,0	630,0	633,8	9,0	30,0	33,1	54,26	15.750	TBC	542,87	55.281,79
710	33,9	642,2	710,0	716,4	9,0	33,9	37,4	69,09	17.750	TBC	691,24	70.391,51
800	38,1	723,8	800,0	807,2	10,0	38,1	42,1	87,50	20.000	TBC	875,48	89.152,30

* Note that “,” separates for decimals and “.” separates for thousands

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SDR 11												
OD [mm]	WT [mm]	ID [mm]	ODmin [mm]	ODmax [mm]	Ovality	WTmin [mm]	WTmax [mm]	Weight [kg/m]	Min Bend Radius [mm] @ 20 ° C	Ring Stiffness SN {kN/m ² }	Max Install tension [kN] @ 20 ° C	Max Install tension [kg] @ 20 ° C
110	10,0	90,0	110,0	110,7	2,2	10,0	11,1	3,02	2.200	64	30,16	3.071,21
125	11,4	102,2	125,0	125,8	2,5	11,4	12,7	3,91	2.500	64	39,06	3.977,34
140	12,7	114,6	140,0	140,9	2,8	12,7	14,1	4,88	2.800	64	48,76	4.965,26
160	14,6	130,8	160,0	161,0	3,2	14,6	16,2	6,40	3.200	64	64,02	6.519,69
180	16,4	147,2	180,0	181,1	3,6	16,4	18,2	8,09	3.600	64	80,92	8.240,18
200	18,2	163,6	200,0	201,2	4,0	18,2	20,2	9,98	4.000	64	99,79	10.161,90
225	20,5	184,0	225,0	226,4	4,5	20,5	22,7	12,64	4.500	64	126,44	12.875,28
250	22,7	204,6	250,0	251,5	5,0	22,7	25,1	15,56	5.000	64	155,61	15.846,56
280	25,4	229,2	280,0	281,7	5,0	25,4	28,1	19,50	5.600	64	195,04	19.861,03
315	28,6	257,8	315,0	316,9	5,0	28,6	31,6	24,70	6.300	64	247,04	25.156,41
355	32,2	290,6	355,0	357,2	6,0	32,2	35,6	31,35	7.100	64	313,48	31.922,66
400	36,3	327,4	400,0	402,4	7,0	36,3	40,1	39,82	8.000	64	398,17	40.547,08
450	40,9	368,2	450,0	452,7	8,0	40,9	45,1	50,46	9.000	64	504,63	51.388,08
500	45,4	409,2	500,0	503,0	8,0	45,4	50,1	62,25	10.000	64	622,45	63.386,23
560	50,8	458,4	560,0	563,4	8,0	50,8	56,0	78,01	11.200	64	780,14	79.444,11
630	57,2	515,6	630,0	633,8	9,0	57,2	63,1	98,81	12.600	64	988,14	100.625,64

*Note that “,” separates for decimals and “.” separates for thousands

Exposure:

The pipe shall be UV stabilised to withstand daylight exposure period of at least 12 months. However, for optimum performance, the pipe is best stored for no longer than 6 months if outdoors.

Marking on duct every meter:

EMTELLE POWERPROTECT ODxWTmm SDR-value “DD.MM.YYYY HH:MM” “Lot. No.”

Environmental considerations: Can be disposed to recycling.

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