



## Product Datasheet MHT2871

### PowerProtect Red

#### General

Emtelle PowerProtect PE ducts are made of PE Material and are suitable for cable protection. The ducts are manufactured with tolerances according to DIN EN12201. Emtelle 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 SDR17 RED

Product Code	Product Description	Supply Length	Metre / Frame
300102-12	90x5,4mm PowerProtect SDR17, 12m	12m	756m
300103-12	110x6,6mm PowerProtect SDR17, 12m	12m	576m
300104-12	125x7,4mm PowerProtect SDR17, 12m	12m	408m
300105-12	140x8,3mm PowerProtect SDR17, 12m	12m	312m
300106-12	160x9,5mm PowerProtect SDR17, 12m	12m	240m
300107-12	180x10,7mm PowerProtect SDR17, 12m	12m	204m
300108-12	200x11,9mm PowerProtect SDR17, 12m	12m	168m
300109-12	225x13,4mm PowerProtect SDR17, 12m	12m	168m
300110-12	250x14,8mm PowerProtect SDR17, 12m	12m	84m
300111-12	280x16,6mm PowerProtect SDR17, 12m	12m	48m
300112-12	315x18,7mm PowerProtect SDR17, 12m	12m	36m
300113-12	355x21,1mm PowerProtect SDR17, 12m	12m	36m
300114-12	400x23,7mm PowerProtect SDR17, 12m	12m	36m
300115-12	450x26,7mm PowerProtect SDR17, 12m	12m	24m
300116-12	500x29,7mm PowerProtect SDR17, 12m	12m	24m
300117-12	560x33,2mm PowerProtect SDR17, 12m	12m	24m
300118-12	630x37,4mm PowerProtect SDR17, 12m	12m	12m
300119-12	710x42,1mm PowerProtect SDR17, 12m	12m	12m
300120-12	800x47,4mm PowerProtect SDR17, 12m	12m	12m

Other supply lengths available on request

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## Dimensions PowerProtect SDR11 RED

Product Code	Product Description	Supply Length	Metre / Frame
300121-12	90x8,2mm PowerProtect SDR11, 12m	12m	756m
300122-12	110x10mm PowerProtect SDR11, 12m	12m	576m
300123-12	125x11,4mm PowerProtect SDR11, 12m	12m	408m
300124-12	140x12,7mm PowerProtect SDR11, 12m	12m	312m
300125-12	160x14,6mm PowerProtect SDR11, 12m	12m	240m
300126-12	180x16,4mm PowerProtect SDR11, 12m	12m	204m
300127-12	200x18,2mm PowerProtect SDR11, 12m	12m	168m
300128-12	225x20,5mm PowerProtect SDR11, 12m	12m	168m
300129-12	250x22,7mm PowerProtect SDR11, 12m	12m	84m
300130-12	280x25,4mm PowerProtect SDR11, 12m	12m	48m
300131-12	315x28,6mm PowerProtect SDR11, 12m	12m	36m
300132-12	355x32,2mm PowerProtect SDR11, 12m	12m	36m
300133-12	400x36,3mm PowerProtect SDR11, 12m	12m	36m
300134-12	450x40,9mm PowerProtect SDR11, 12m	12m	24m
300135-12	500x45,4mm PowerProtect SDR11, 12m	12m	24m
300136-12	560x50,8mm PowerProtect SDR11, 12m	12m	24m
300137-12	630x57,2mm PowerProtect SDR11, 12m	12m	12m

Other supply lengths available on request

## 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/cm<sup>3</sup>.

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SDR 17												
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 <sup>2</sup> }	Max Install tension [kN] @ 20 ° C	Max Install tension [kg] @ 20 ° C
90	5,4	79,2	90,0	90,6	1,8	5,4	6,1	1,38	1.800	16	13,78	1.403,05
110	6,6	96,8	110,0	110,7	2,2	6,6	7,4	2,06	2.200	16	20,58	2.095,92
125	7,4	110,2	125,0	125,8	2,5	7,4	8,3	2,62	2.500	16	26,25	2.672,69
140	8,3	123,4	140,0	140,9	2,8	8,3	9,3	3,30	2.800	16	32,97	3.357,17
160	9,5	141,0	160,0	161,0	3,2	9,5	10,6	4,31	3.200	16	43,12	4.391,06
180	10,7	158,6	180,0	181,1	3,6	10,7	11,9	5,46	3.600	16	54,63	5.563,53
200	11,9	176,2	200,0	201,2	4,0	11,9	13,2	6,75	4.000	16	67,51	6.874,57
225	13,4	198,2	225,0	226,4	4,5	13,4	14,9	8,55	4.500	16	85,51	8.708,23
250	14,8	220,4	250,0	251,5	5,0	14,8	16,4	10,50	5.000	16	104,98	10.690,76
280	16,6	246,8	280,0	281,7	5,0	16,6	18,4	13,19	5.600	16	131,87	13.428,68
315	18,7	277,6	315,0	316,9	5,0	18,7	20,7	16,71	6.300	16	167,11	17.017,00
355	21,1	312,8	355,0	357,2	6,0	21,1	23,4	21,25	7.100	16	212,48	21.637,57
400	23,7	352,6	400,0	402,4	7,0	23,7	26,2	26,90	8.000	16	268,97	27.390,01
450	26,7	396,6	450,0	452,7	8,0	26,7	29,5	34,09	9.000	16	340,86	34.711,16
500	29,7	440,6	500,0	503,0	8,0	29,7	32,8	42,13	10.000	16	421,26	42.898,40
560	33,2	493,6	560,0	563,4	8,0	33,2	36,7	52,75	11.200	16	527,48	53.714,74
630	37,4	555,2	630,0	633,8	9,0	37,4	41,3	66,84	12.600	16	668,43	68.067,98
710	42,1	625,8	710,0	716,4	9,0	42,1	46,5	84,80	14.200	16	848,04	86.358,12
800	47,4	705,2	800,0	807,2	10,0	47,4	52,3	107,59	16.000	16	1.075,88	109.560,04

\*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 <sup>2</sup> }	Max Install tension [kN] @ 20 ° C	Max Install tension [kg] @ 20 ° C
90	8,2	73,6	90,0	90,6	1,8	8,2	9,2	2,02	1.800	64	20,23	2.060,05
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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