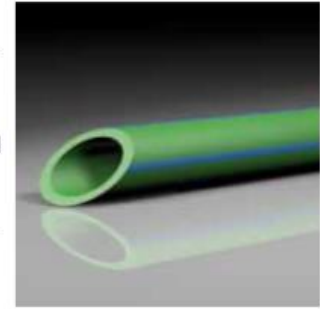
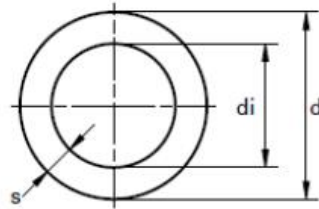
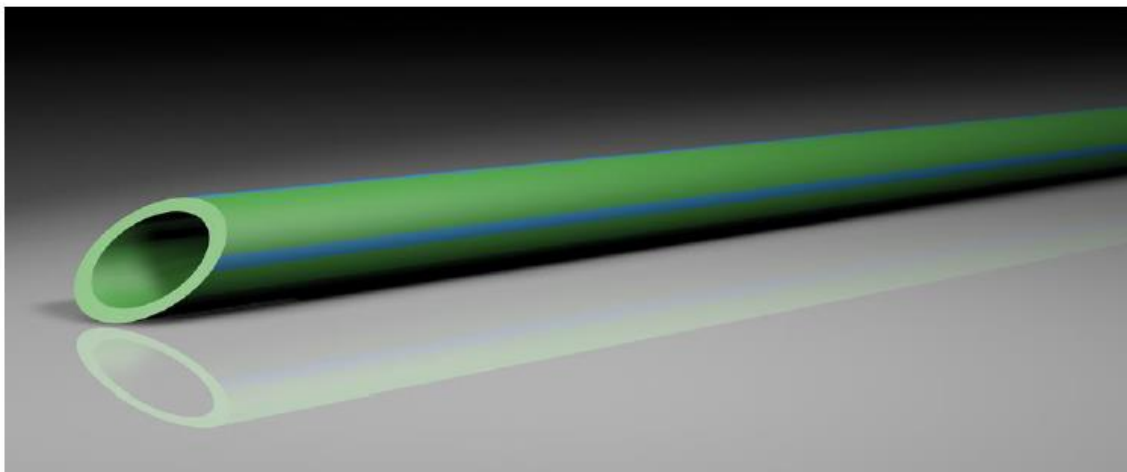


## aquatherm green pipe - SDR 11 S

Structure of pipe: s (single)  
 Material: fusiolen PP-R  
 Pipe series: SDR 11/S5  
 Standards: DIN 8077/78, DIN EN ISO 15874, ASTM F 2389, CSA B 137.11  
 Colour: green with 4 blue stripes  
 Form supplied: ø 20-125mm 4 m straight lengths, also\* in coils  
 ø 160-450mm straight lengths 5,8 m  
 Packing Unit: PU in Meter  
 Application:



SDR	Art.-No.	Dimension d [mm]	Wall thickness s [mm]	Internal diameter di [mm]	Water content [l/m]	Weight [kg]	DN	PU [m]	Price € m/pc
11	Socket welding								
	10208	20	1,9	16,2	0,206	0,109	15	100	
	10210	25	2,3	20,4	0,327	0,165	20	100	
	10212	32	2,9	26,2	0,539	0,265	25	40	
	10214	40	3,7	32,6	0,834	0,415	32	40	
	10216	50	4,6	40,8	1,307	0,645	40	20	
	10218	63	5,8	51,4	2,074	1,015	50	20	
	10220	75	6,8	61,4	2,959	1,415	65	20	
	10222	90	8,2	73,6	4,252	2,045	80	12	
	10224	110	10,0	90,0	6,359	3,136	-	8	
	10226	125	11,4	102,2	8,199	3,927	100	4	
	10308*	20	1,9	16,2	0,206	0,109	15	100	
	10310*	25	2,3	20,4	0,327	0,158	20	100	
	10312*	32	2,9	26,2	0,539	0,257	25	50	
	Butt welding								
	10230	160	14,6	130,8	13,430	6,416	125	5,8	
	10234	200	18,2	163,6	21,010	9,991	150	5,8	
	10238	250	22,7	204,6	32,861	15,540	200	5,8	
	10242	315	28,6	257,8	52,172	25,700	250	5,8	
10244	355	32,2	290,6	66,325	31,300	300	5,8		
10246	400	36,3	327,6	84,290	41,400	300	5,8		
10248	450	40,9	368,2	106,477	52,400	400	5,8		



## aquatherm green pipe, blue pipe & lilac pipe SDR 11 S

Table to determine support intervals in conjunction with temperature and outside diameter.

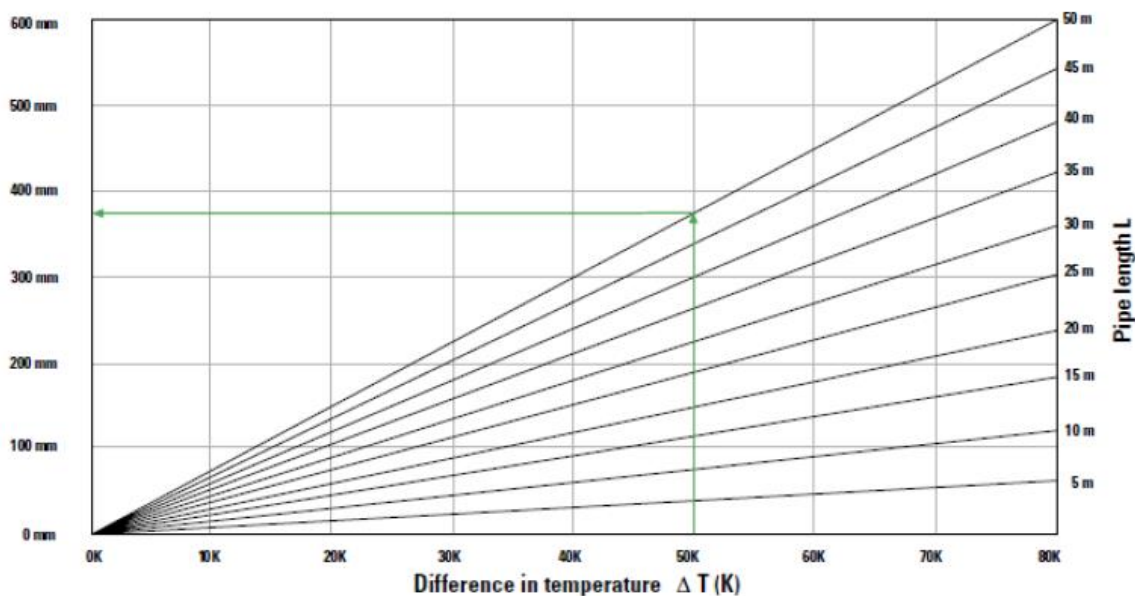
Pipe diameter d (mm)														
20	25	32	40	50	63	75	90	110	125	160	200	250	315	355
Support intervals in cm														
60	75	90	100	120	140	150	160	180	200	260	265	275	280	285

## aqualtherm green pipe & aqualtherm blue pipe (without faser)

The linear expansion, described on the preceding pages, can be taken from the following tables and graphs.

**Linear expansion  $\Delta L$  in [mm]:** green- and blue pipe -  $\alpha = 0,150 \text{ mm/mK}$

Pipe length	Difference in temperature $\Delta T = T_{\text{operating temperature}} - T_{\text{installation temperature}}$							
	10 K	20 K	30 K	40 K	50 K	60 K	70 K	80 K
	<b>Linear expansion <math>\Delta L</math> (mm)</b>							
5 m	8	15	23	30	38	45	53	60
10 m	15	30	45	60	75	90	105	120
15 m	23	45	68	90	113	135	158	180
20 m	30	60	90	120	150	180	210	240
25 m	38	75	113	150	188	225	263	300
30 m	45	90	135	180	225	270	315	360
35 m	53	105	158	210	263	315	368	420
40 m	60	120	180	240	300	360	420	480
45 m	68	135	203	270	338	405	473	540
50 m	75	150	225	300	375	450	525	600



# PERMISSIBLE WORKING PRESSURE - POTABLE WATER

Fluid transported: water acc. to DIN 2000

Temperature	Service life	aqualtherm green pipe SDR 11 S aqualtherm lilac pipe SDR 11 S		aqualtherm green pipe SDR 7,4 S		aqualtherm green pipe SDR 6 S aqualtherm green pipe SDR 7,4 MS		aqualtherm green pipe SDR 7,4 MF		aqualtherm green pipe SDR 9 MF RP	
		Permissible working pressure in bar and (psi)									
		bar	(psi)	bar	(psi)	bar	(psi)	bar	(psi)	bar	(psi)
20 °C 68 °F	1	15,0	(218)	23,8	(345)	30,0	(435)	28,6	(415)	25,0	(363)
	5	14,1	(205)	22,3	(323)	28,1	(408)	26,8	(389)	24,2	(351)
	10	13,7	(199)	21,7	(315)	27,3	(396)	26,1	(379)	23,9	(347)
	25	13,3	(193)	21,1	(306)	26,5	(384)	25,3	(367)	23,5	(341)
	50	12,9	(187)	20,4	(296)	25,7	(373)	24,5	(355)	23,1	(335)
30 °C 86 °F	1	12,8	(186)	20,2	(293)	25,5	(370)	24,3	(352)	21,7	(315)
	5	12,0	(174)	19,0	(276)	23,9	(347)	22,8	(331)	21,0	(305)
	10	11,6	(168)	18,3	(265)	23,1	(335)	22,0	(319)	20,6	(299)
	25	11,2	(162)	17,7	(257)	22,3	(323)	21,3	(309)	20,2	(293)
	50	10,9	(158)	17,3	(251)	21,8	(316)	20,7	(300)	20,0	(290)
Potable water (cold) Potable water (warm)	40 °C 104 °F	1	17,1	(248)	21,5	(312)	20,5	(297)	18,7	(271)	
		5	16,0	(232)	20,2	(293)	19,2	(278)	18,0	(261)	
		10	15,6	(226)	19,6	(284)	18,7	(271)	17,7	(257)	
		25	15,0	(218)	18,8	(273)	18,0	(261)	17,4	(252)	
		50	14,5	(210)	18,3	(265)	17,5	(254)	17,0	(247)	
	50 °C 122 °F	1	14,5	(210)	18,3	(265)	17,5	(254)	15,9	(231)	
		5	13,5	(196)	17,0	(247)	16,2	(235)	15,3	(222)	
		10	13,1	(190)	16,5	(239)	15,7	(228)	15,1	(219)	
		25	12,6	(183)	15,9	(231)	15,2	(220)	14,8	(215)	
		50	12,2	(177)	15,4	(223)	14,7	(213)	14,5	(210)	
	60 °C 140 °F	1	12,2	(177)	15,4	(223)	14,7	(213)	13,5	(196)	
		5	11,4	(165)	14,3	(207)	13,7	(199)	13,0	(189)	
		10	11,0	(160)	13,8	(200)	13,2	(191)	12,8	(186)	
		25	10,5	(152)	13,3	(193)	12,6	(183)	12,5	(181)	
		50	10,1	(146)	12,7	(184)	12,1	(175)	12,3	(178)	
	65 °C 149 °F	1	11,6	(168)	14,6	(212)	13,9	(202)	12,4	(180)	
		5	10,8	(157)	13,6	(197)	12,9	(187)	11,9	(173)	
		10	10,4	(151)	13,1	(190)	12,5	(181)	11,7	(170)	
		25	10,0	(145)	12,6	(183)	12,0	(174)	11,4	(165)	
		50	8,8	(128)	11,1	(161)	10,6	(154)	11,2	(162)	
70 °C 158 °F	1	10,3	(149)	13,0	(189)	12,4	(180)	11,4	(165)		
	5	9,5	(138)	11,9	(173)	11,4	(165)	10,9	(158)		
	10	9,3	(135)	11,7	(170)	11,1	(161)	10,7	(155)		
	25	8,0	(116)	10,1	(146)	9,6	(139)	10,5	(152)		
	30	7,0	(102)	8,8	(128)	9,3	(135)	10,3	(149)		
50	6,7	(97)	8,5	(123)	8,1	(117)	10,2	(148)			

Faser and Stabi composite pipe: high working stress at lower wall thickness and higher flow rate

SDR = Standard Dimension Ratio (diameter/wall thickness ratio)

S = single layer

MS = multilayer stabi - integrated aluminium-layer

MF = multilayer faser

MF RP = multilayer faser - raised pressure (resistance)

The determination of the allowable pressures resulted from the specific conditions to which pipe system components in the drinking water domestic installation are exposed to. Limiting factors such as increased flow rates, the use of disinfectants, increased content of oxygen, etc. were considered by the use of the appropriate safety factors. For fittings of butt-welded pipe segments a reduction factor of 0.75 (reduction of the table values by 25%) is effective.