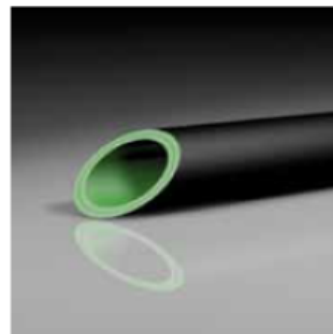
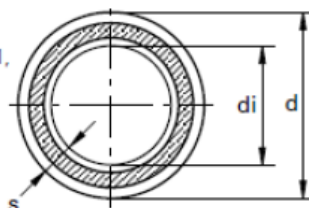


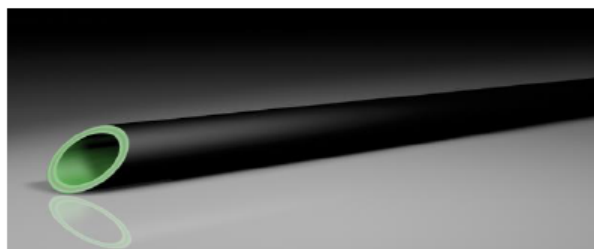
aquatherm green pipe - SDR 7,4 MF UV

Structure of pipe:	MF = multilayer, with fibre reinforced
Special feature of pipe:	UV resistant
Material:	fusiolen PP-R
Pipe series:	SDR 7,4/S 3,2
Standards:	SKZ HR 3.28, ASTM F 2389, CSA B 137.11, ISO 21003
Colour:	outer layer: black inner layer: green
Form supplied:	ø 20-125mm straight lengths 4 m ø 160-250mm straight lengths 5,8 m
Packing Unit:	PU in meter
Application:	



Resistant against UV-rays. Mechanically stabilized through a faser mix integrated in the middle layer of the fusiolen® PP-R.

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
7,4	Socket welding								
	70758	20	2,8	14,4	0,163	0,211	15	100	
	70760	25	3,5	18,0	0,254	0,316	20	100	
	70762	32	4,4	23,2	0,423	0,488	25	40	
	70764	40	5,5	29,0	0,660	0,733	32	40	
	70766	50	6,9	36,2	1,029	1,108	40	20	
	70768	63	8,6	45,8	1,647	1,697	50	20	
	70770	75	10,3	54,4	2,323	2,363	50	20	
	70772	90	12,3	65,4	3,358	3,400	65	12	
	70774	110	15,1	79,8	4,999	5,093	80	8	
	70776	125	17,1	90,8	6,472	6,450	-	4	
	Butt welding								
	70780	160	21,9	116,2	10,599	10,415	100	5,8	
	70784	200	27,4	145,2	16,550	15,987	150	5,8	
	70788	250	34,2	181,6	25,888	24,932	175	5,8	
		315-355	Dimensions 315 and 355 mm see aquatherm green pipe SDR 9 MF RP UV						



SUPPORT INTERVALS

aquatherm green pipe SDR 7,4 MF & blue pipe SDR 7,4 MF (faser composite pipe)

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

Difference in temperature DT [K]	Pipe diameter d (mm)															
	20	25	32	40	50	63	75	90	110	125	160	200	250	315	355	
	Support intervals in cm															
0	120	140	160	180	205	230	245	260	290	320	330	335	345	355	360	
20	90	105	120	135	155	175	185	195	215	240	240	275	260	265	270	
30	90	105	120	135	155	175	185	195	210	225	230	240	245	255	260	
40	85	95	110	125	145	165	175	185	200	215	220	230	240	240	245	
50	85	95	110	125	145	165	175	185	190	195	205	220	230	235	235	
60	80	90	105	120	135	155	165	175	180	185	195	205	215	220	225	
70	70	80	95	110	130	145	165	165	170	175	185	195	200	215	220	

Pipe clamp distances of vertically installed pipes can be increased by 20 % of the tabular values, e.g. to multiply the tabular value by 1.2.

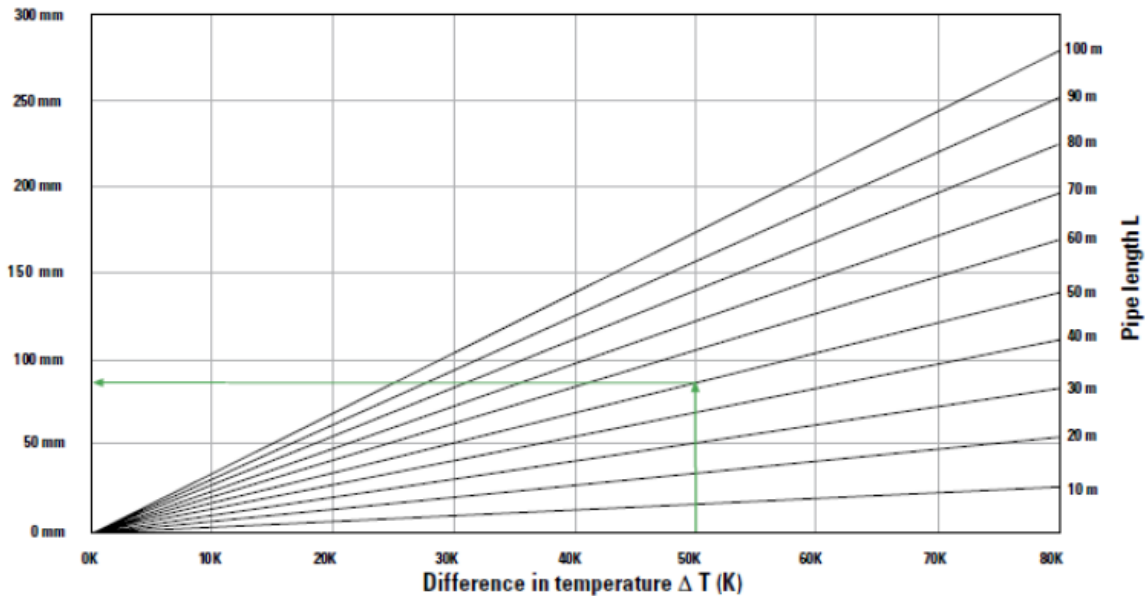
aquatherm green pipe MF (faser composite pipe)

aquatherm blue pipe MF (faser composite pipe)

Due to the integration and positive bond of the different materials, the aquatherm-faser composite pipes offers much higher stability. The linear expansion reduces its value to 1/5 of the mere PP-pipes.

Linear expansion ΔL in [mm]: aquatherm- faser composite pipes - $a = 0.035 \text{ mm/mK}$

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
	Linear expansion DL (mm)							
10 m	4	7	11	14	18	21	25	28
20 m	7	14	21	28	35	42	49	56
30 m	11	21	32	42	53	63	74	84
40 m	14	28	42	56	70	84	98	112
50 m	18	35	53	70	88	105	123	140
60 m	21	42	63	84	105	126	147	168
70 m	25	49	74	98	123	147	172	196
80 m	28	56	84	112	140	168	196	224
90 m	32	63	95	126	158	189	221	252
100 m	35	70	105	140	175	210	245	280



Peeling of the UV layer

When welding UV pipe peel off the UV layer off the **aquatherm** pipe before fusion.

Push the end of the UV pipe into the guide of the peeling tool. Peel off the UV layer up to the top of the peeling tool. It is not necessary to mark the welding depth as the back stop of the peeling tool indicates the correct welding depth.

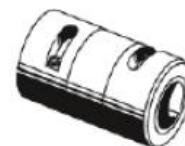
Before starting the fusion, check if the UV layer has been completely removed.



fusiotherm[®]-peeling tool

for **climatherm** OT, **climatherm** OT UV and **fusiotherm**[®] UV **fusiotherm**[®]-stabi-composite pipe

Art.-No.	Dimension	kg/ pc	Packing unit m/ pc	Box unit m/ pc	Piece
50506	16 & 20 mm	0.429	1	30	
50508	20 & 25 mm	0.397	1	25	
50512	32 & 40 mm	0.670	1	13	
50514	40 & 50 mm	1.007	1	8	
50518	63 & 75 mm	1.520	1	6	
50520	75 & 90 mm	3.098	1	2	
50526	110 & 125 mm	3.400	1	-	



NEW AQUATHERM UNIVERSAL PEELING TOOLS

From now on aquatherm offers new universal peeling tools.

By using the aquatherm universal peeling tools the end pieces of the aquatherm OT (oxygen tight), UV (UV resistant) and MS (multilayer stabl) pipes can be peeled. By the uniform removal of the outer layer of the pipe any extension of the pipe system by electrofusion socket or fitting is possible. The universal peeling tools are available in the sizes Ø 20- Ø 125 mm (Art.-No. 50479 – 50488). The peeling process is done either mechanically or manually. For the mechanical processing two attachment plates for pipe sizes Ø20- Ø63 mm (Art.-No. 50499) and Ø75- Ø125 mm (Art.-No. 50500) are available. For the mechanically processing of the electrofusion sockets the peeler is extended by an attachment (Art.-No. 50489 – 50498). The power drill should have a high torque.

First the current stock of the old peeling tools (see table on the following page) has to be sold.



▲ Universal peeling tool (here: 75mm, Art.-No. 50485) and extension (here: 75mm, Art.-No. 50495)



▲ Mechanical peeling process: Peeling tool with attachment plate



▼ Manual peeling: Peeling tool with handles (enclosed)



RANGE OF UNIVERSAL PEELING TOOLS

Article-No. OLD Peeling tools		Replacement-No. NEW Peeling tools	
Article-No. Old peeling tools	Description	Article-No. New peeling tools	Description
50506	Peeling tool OT UV MS 16&20mm	50479	Universal peeling tool 20mm
50508	Peeling tool OT UV MS 20&25mm	50479 50480	Universal peeling tool 20mm Universal peeling tool 25mm
50512	Peeling tool OT UV MS 32&40mm	50481 50482	Universal peeling tool 32mm Universal peeling tool 40mm
50516	Peeling tool OT UV MS 50&63mm	50483 50484	Universal peeling tool 50mm Universal peeling tool 63mm
50518	Peeling tool OT UV MS 63&75mm	50484 50485	Universal peeling tool 63mm Universal peeling tool 75mm
50520	Peeling tool OT UV MS 75&90mm	50485 50486	Universal peeling tool 75mm Universal peeling tool 90mm
50526	Peeling tool OT UV MS 110&125mm	50487 50488	Universal peeling tool 110mm Universal peeling tool 125mm
Article-No. OLD Peeling tools		Replacement-No. NEW Peeling tools	
Article-No. Old peeling tools	Description	Article-No. New peeling tools	Description
50507	Twin peeling tool OT UV MS 20&25mm	50479 50489 50480 50490	Universal peeling tool 20mm Extension for Universal peeling tool 20mm Art. 50479 Universal peeling tool 25mm Extension for Universal peeling tool 25mm Art. 50480
50511	Twin peeling tool OT UV MS 32&40mm	50481 50491 50482 50492	Universal peeling tool 32mm Extension for Universal peeling tool 32mm Art. 50481 Universal peeling tool 40mm Extension for Universal peeling tool 40mm Art. 50482
50515	Twin peeling tool OT UV MS 50&63mm	50483 50493 50484 50494	Universal peeling tool 50mm Extension for Universal peeling tool 50mm Art. 50483 Universal peeling tool 63mm Extension for Universal peeling tool 63mm Art. 50484
50519	Twin peeling tool OT UV MS 75&90mm	50485 50495 50486 50496	Universal peeling tool 75mm Extension for Universal peeling tool 75mm Art. 50485 Universal peeling tool 90mm Extension for Universal peeling tool 90mm Art. 50486
50525	Twin peeling tool OT UV MS 110&125mm	50487 50497 50488 50498	Universal peeling tool 110mm Extension for Universal peeling tool 110mm Art. 50487 Universal peeling tool 125mm Extension for Universal peeling tool 125mm Art. 50488
		50499	Attachment plate for universal peeling tool 50479 – 50484
		50500	Attachment plate for universal peeling tool 50485 – 50488

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											

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.