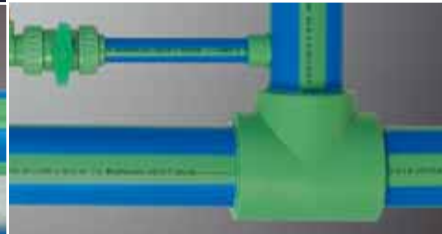
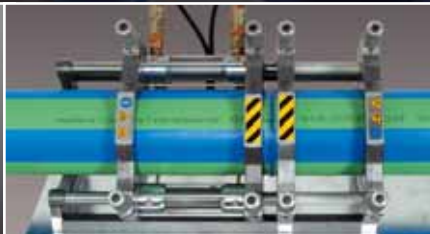
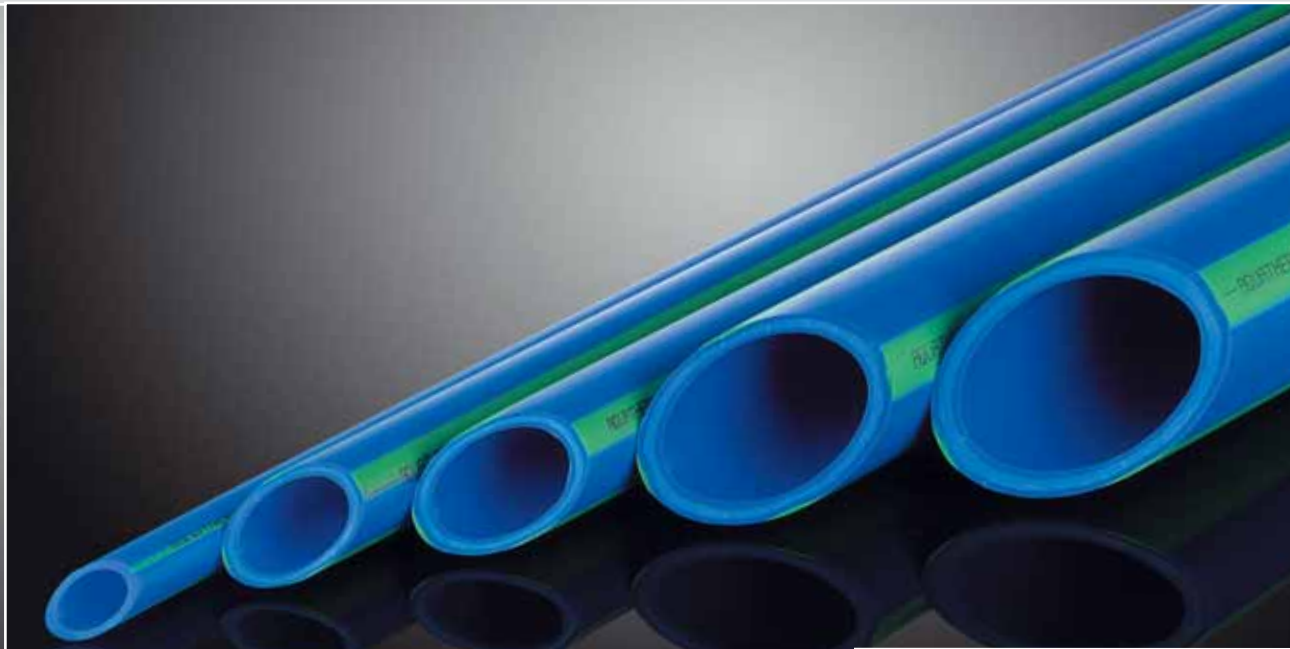


climatherm



We set the standards for quality and reliability!

Pipe System

Pipe system for chilled, hot and industrial applications



aquatherm

aquatherm-climatherm

The climatherm-pipe system includes all elements for the pipe system installation for chilled, hot fluid and various industrial applications.

The production process, developed by aquatherm, combines a special fiber mixture with the material polypropylene.

The result of this innovative composite-technology is a unique compound of the material-components.

Corrosion-resistant

climatherm stops corrosion damages!

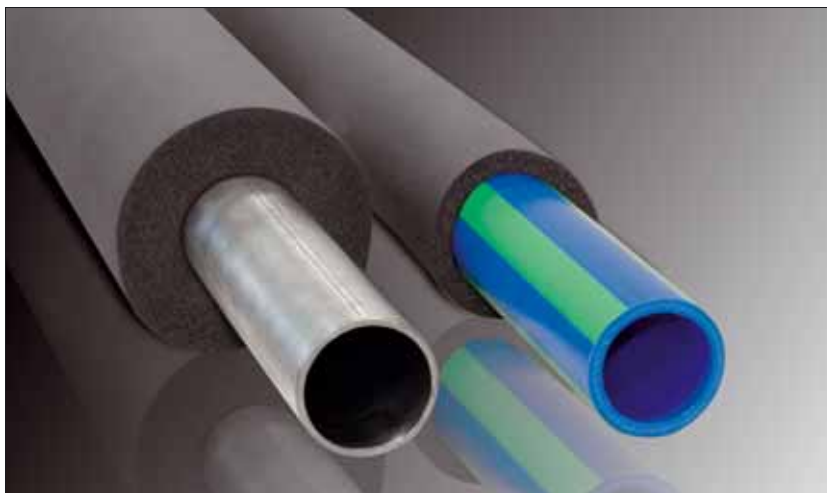
Air conditioning systems (problems with dew-point) installed with steel pipes especially are affected by corrosion at the outer surface of the pipes. climatherm is manufactured from 100% corrosion resistant materials which increase the life-time of air-conditioning pipe systems considerably.



► Corroding steel pipe

Insulation against energy loss

Compared to metal pipes climatherm-pipes require a considerable thinner insulation.



Advantages of the climatherm-system

Characteristics

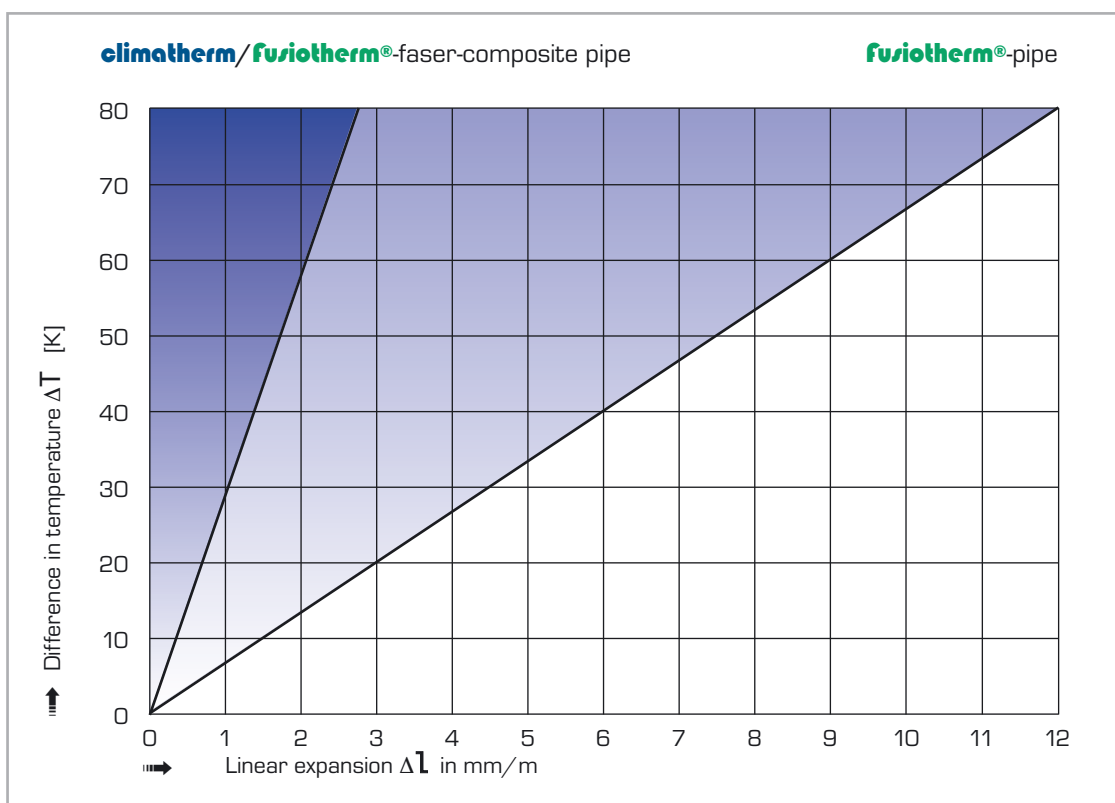
- ▶ resistant against chemicals
- ▶ high environmental compatibility
- ▶ high impact rate
- ▶ less pipe friction
- ▶ heat/sound insulating characteristics
- ▶ no flow noise
- ▶ high stability
- ▶ very good welding properties
- ▶ heat stabilized



Linear expansion

Composed of fusiolen PP-R C and a special faser filling - integrated as middle layer in the material PP-R - climatherm-faser composite pipes stand the test of time excellently as economic, resistant and innovative pipe-technology, world-wide.

- ▶ linear expansion reduced (see graph)
- ▶ flow increased by 20%, with the same loading capacity, due to bigger inner diameter
- ▶ high stability and load capacity
- ▶ easy handling: simply cut and weld!



System technology

Fields of application

climatherm-faser-composite pipes have been developed especially for applications beyond the potable water installation. Compared directly to the conventional PP-R pipe systems the climatherm-faser composite pipe has a higher flow rate. climatherm-faser composite pipes are available in diameters from 20 mm - 250 mm.

Fields of application of the climatherm-pipe system:

- ▶ heating system construction
- ▶ climate technology
- ▶ chilled water technology
- ▶ swimming-pool technology
- ▶ chemical transport in consideration of the material durability
- ▶ rainwater application
- ▶ irrigation
- ▶ compressed air systems
- ▶ underfloor heating systems
- ▶ application in the field of ship building
- ▶ geothermal



Fusion technique

Socket welding technology

By the fusion of pipe and fitting the plastic melts to a homogeneous material unit. Pipe and fitting are quickly heated by means of specific welding tools and then just joint: finished!

With the fusion technique of aquatherm you will easily get a permanent, leakproof connection.

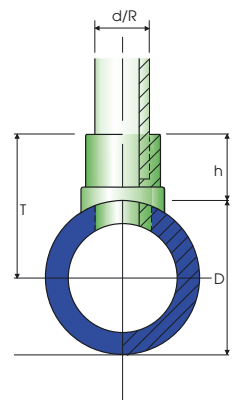
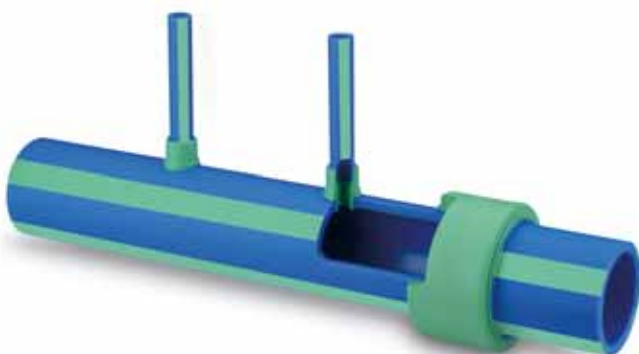


Weld-in saddle technique

Branches can easily be made with weld-in saddles, even at a later stage of installation. By using weld-in saddles material and time is reduced.

1. Drill the pipe with the aquatherm-special borer (Art.-No. 50940-48).
2. Heat up the weld-in saddle and the pipe.
3. Join the weld-in saddle and pipe permanently.

The result: a permanent corrosion-free connection!



climatherm-faser composite pipe

Material: fusiolen CGF

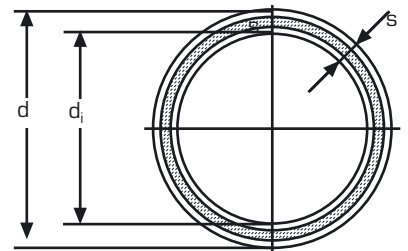
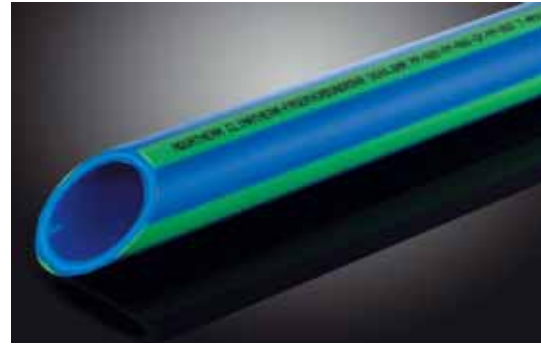
Pipe series: Art.-Nr. 2070708-2070712 = SDR 7,4
 Art.-Nr. 2070112-2070138 = SDR 11

Form supplied: 4 m straight length, also in coils
 Packing unit: PU in meter
 Colour: blue / 4 green stripes

Field of application:

For air-conditioning, heating and industrial pipe systems with a maximum pressure of 10 bars and operating temperatures from -20° C up to +90° C.

Please regard the table of permissible working pressures on the next page.



Further pipe types:

climatherm-pipe SDR 11 without integrated faser layer, as well as climatherm-pipe SDR 7,4 with UV-barrier layer. You find these types in the current fusiotherm-catalogue.

Pipes				Diameter	Wall thickness	Internal diameter	Water content	Weight	
Art.-No.	SDR	Diameter	LE	d mm	s mm	d _i mm	l/m	kg/m	DN
2070708	7,4	20 mm	100	20	2,8	14,4	0,163	0,156	15
2070710	7,4	25 mm	100	25	3,5	18,0	0,254	0,243	20
2070712	7,4	32 mm	40	32	4,4	23,2	0,423	0,392	25
2070112	11	32 mm	40	32	2,9	26,2	0,539	0,281	25
2070114	11	40 mm	40	40	3,7	32,6	0,834	0,434	32
2070116	11	50 mm	20	50	4,6	40,8	1,307	0,672	40
2070118	11	63 mm	20	63	5,8	51,4	2,074	1,061	50
2070120	11	75 mm	20	75	6,8	61,4	2,959	1,479	65
2070122	11	90 mm	12	90	8,2	73,6	4,252	2,142	80
2070124	11	110 mm	8	110	10,0	90,0	6,359	3,171	80
2070126	11	125 mm	4	125	11,4	102,2	8,199	4,114	100
2070130	11	160 mm	4	160	14,6	130,8	13,430	6,725	125
2070134	11	200 mm	4	200	18,2	163,6	21,010	10,475	150
2070138	11	250 mm	4	250	22,7	204,6	32,861	16,301	200

Permissible working pressures

for general application of pressure pipes

Temperature	Service life	climatherm-faser composite SDR 11	climatherm-faser composite SDR 7,4
		Permissible working pressure in bar	
10°C	1	27,8	43,2
	5	26,2	40,7
	10	25,6	39,7
	25	24,7	38,3
	50	24,1	37,4
	100	23,5	36,4
15°C	1	25,7	39,9
	5	24,2	37,5
	10	23,6	36,6
	25	22,8	35,3
	50	22,2	34,4
	100	21,6	33,5
20°C	1	23,8	36,8
	5	22,3	34,6
	10	21,7	33,7
	25	21,0	32,5
	50	20,4	31,7
	100	19,9	30,9
30°C	1	20,2	31,3
	5	18,9	29,4
	10	18,4	28,6
	25	17,8	27,5
	50	17,3	26,8
	100	16,8	26,0
40°C	1	17,1	26,6
	5	16,0	24,9
	10	15,6	24,1
	25	15,0	23,2
	50	14,6	22,6
	100	14,1	21,9
50°C	1	14,5	22,5
	5	13,5	21,0
	10	13,1	20,4
	25	12,6	19,6
	50	12,2	19,0
	100	11,9	18,4
60°C	1	12,2	19,0
	5	11,4	17,7
	10	11,0	17,1
	25	10,6	16,4
	50	10,3	15,9
	100	10,3	16,0
70°C	1	10,3	16,0
	5	9,6	14,8
	10	9,2	14,3
	25	8,0	12,5
	50	6,8	10,5
	100	6,8	10,5
75°C	1	9,4	14,6
	5	8,7	13,5
	10	8,0	12,5
	25	6,4	10,0
	50	5,4	8,4
	100	5,4	8,4
80°C	1	8,6	13,4
	5	7,7	11,9
	10	6,5	10,0
	25	5,2	8,0
	50	4,3	6,6
	100	4,3	6,6
90°C	1	7,2	11,2
	5	5,1	7,8
	10	4,3	6,6
	25	3,5	5,4
	50	3,5	5,4
	100	3,5	5,4
95°C	1	6,1	9,5
	5	4,1	6,4
	10	3,5	5,4
	25	3,5	5,4
	50	3,5	5,4
	100	3,5	5,4

* SDR = Standard Dimension Ratio
(diameter/wall thickness ratio)
SDR = $2 \times S + 1 \approx d/s$
(S= pipe series index from ISO 4065)



aquatherm GmbH

Biggen 5
D-57439 Attendorn
Tel.: +49 (0)2722 950-0
Fax: +49 (0)2722 950-100

Wilhelm-Rönsch-Str. 4
D-01454 Radeberg
Tel.: +49 (0)3528 4362-0
Fax: +49 (0)3528 4362-30

E-mail: info@aquatherm.de
www.aquatherm.de



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