

## **aquatherm blue pipe MF RP**

Next generation polypropylene for increased pressure resistance



**aquatherm**

state of the pipe





Durable, corrosion-resistant, lightweight and robust pressure resistance at higher temperatures – these are the properties that aquatherm blue pipe MF RP combines. The pipe system made of fusiolen® PP-RCT is ideally suited for the demanding conditions of the HVAC market.

aquatherm blue pipe MF RP pipe is significantly lighter than steel, copper and stainless-steel pipe, thereby simplifying handling during transport, in fabrication shops, and on the construction site. Compared to metallic materials, aquatherm blue pipe MF RP also scores with its corrosion resistance. It can be used in applications such as high-pressure risers, high-temperature heating and district heating systems and industrial process systems, to name a few.

fusiolen® PP-RCT is classified as a polypropylene random copolymer with increased pressure resistance in accordance with ISO 15874. It meets the most stringent international and national standards for polypropylene pressure piping.

aquatherm blue pipe MF RP is available in different versions in SDR 9, SDR 11, and SDR 17.6. aquatherm green pipe injection-moulded butt-fusion fittings  $\geq 160$  mm diameter and segmented fittings  $\geq 315$  mm diameter are also available in fusiolen® PP-RCT.

**Benefits of aquatherm blue pipe MF RP:**

- strong pressure resistance at higher temperatures
- significantly lighter weight than steel, copper and stainless-steel pipes
- corrosion-resistant
- can be heat-fused to all aquatherm green pipe fittings
- can be installed with the same tools as PP-R pipe

**FIELDS OF APPLICATION**

- heating systems
- refrigeration
- air conditioning
- swimming pool
- chemical transport
- irrigation
- compressed air systems
- district heating
- ship building
- geothermal

		Dimension [mm]																
		32	40	50	63	75	90	110	125	160	200	250	315	355	400	450	500	630
aquatherm blue pipe	SDR 9 MF RP	●																
aquatherm blue pipe	SDR 9 MF RP UV	●																
aquatherm blue pipe	SDR 9 MF RP OT	●																
aquatherm blue pipe	SDR 9 MF RP TI	●																
aquatherm blue pipe	SDR 9 MF RP OT TI	●																
aquatherm blue pipe	SDR 11 MF RP		●	●	●	●	●	●	●	●	●	●	●	●	●	●		
aquatherm blue pipe	SDR 11 MF RP UV		●	●	●	●	●	●	●	●	●	●	●	●	●	●		
aquatherm blue pipe	SDR 11 MF RP OT		●	●	●	●	●	●	●	●	●	●	●	●	●	●		
aquatherm blue pipe	SDR 11 MF RP TI		●	●	●	●	●	●	●	●	●	●	●	●	●	●		
aquatherm blue pipe	SDR 11 MF RP OT TI		●	●	●	●	●	●	●	●	●	●	●	●	●	●		
aquatherm blue pipe	SDR 17,6 MF RP								●	●	●	●	●	●	●	●	●	●
aquatherm blue pipe	SDR 17,6 MF RP UV								●	●	●	●	●	●	●	●	●	●
aquatherm blue pipe	SDR 17,6 MF RP TI								●	●	●	●	●	●	●	●	●	●

Abbreviations	
MF	multi-layer faser
RP	raised pressure resistance
OT	oxygen-tight
UV	UV-resistant
TI	thermally isolated

## PERMISSIBLE WORKING PRESSURE

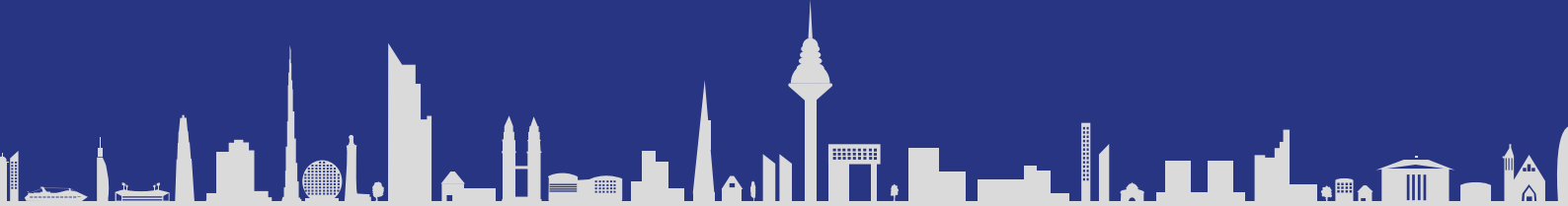
for general pressure pipe applications in permanent operation (non potable water application)

Temperature	Years of service	aquatherm blue pipe SDR 17,6 MF RP		aquatherm blue pipe SDR 11 MF RP		aquatherm blue pipe SDR 9 MF RP	
		Permissible working pressure in bar and (psi)					
		bar	(psi)	bar	(psi)	bar	(psi)
10 °C 50 °F	10	13,1	(190,0)	25,3	(366,9)	27,5	(399)
	25	12,9	(187,1)	24,7	(358,2)	27,1	(393)
	50	12,7	(184,2)	24,1	(349,5)	26,7	(387)
	100	12,6	(182,7)	23,5	(340,8)	26,3	(381)
15 °C 59 °F	10	12,3	(178,4)	23,4	(338,7)	25,7	(373)
	25	12,1	(175,5)	22,8	(330,7)	25,2	(366)
	50	11,9	(172,6)	22,2	(322,0)	24,9	(361)
	100	11,7	(169,7)	21,6	(313,3)	24,5	(355)
20 °C 68 °F	10	11,4	(165,3)	21,4	(310,4)	23,9	(347)
	25	11,2	(162,4)	21,0	(304,6)	23,5	(341)
	50	11,0	(159,5)	20,4	(295,9)	23,1	(335)
	100	10,9	(158,1)	19,9	(288,6)	22,8	(331)
30 °C 86 °F	10	9,8	(142,1)	18,3	(265,4)	20,6	(299)
	25	9,6	(139,2)	17,8	(258,2)	20,2	(293)
	50	9,5	(137,8)	17,3	(250,9)	19,9	(289)
	100	9,4	(136,3)	16,8	(243,7)	19,7	(286)
40 °C 104 °F	10	8,4	(121,8)	15,5	(224,8)	17,7	(257)
	25	8,3	(120,4)	15,0	(217,6)	17,3	(251)
	50	8,1	(117,5)	14,6	(211,8)	17,1	(248)
	100	8,0	(116,0)	14,1	(204,5)	16,8	(244)
50 °C 122 °F	10	7,2	(104,4)	13,0	(188,5)	15,1	(219)
	25	7,0	(101,5)	12,6	(182,7)	14,7	(213)
	50	6,9	(100,1)	12,2	(176,9)	14,5	(210)
	100	6,8	(98,6)	11,9	(172,6)	14,3	(207)
60 °C 140 °F	10	6,1	(88,5)	10,9	(158,1)	12,7	(184)
	25	5,9	(85,6)	10,6	(153,7)	12,4	(180)
	50	5,8	(84,1)	10,3	(149,4)	12,2	(177)
70 °C 158 °F	10	5,1	(74,0)	8,5	(123,3)	10,7	(155)
	25	5,0	(72,5)	8,3	(120,4)	10,4	(151)
	50	4,9	(71,1)	8,1	(117,5)	10,2	(148)
75 °C 167 °F	10	4,6	(66,7)	7,7	(111,7)	9,7	(141)
	25	4,5	(65,3)	7,6	(110,2)	9,5	(138)
	50	4,4	(63,8)	7,3	(105,9)	9,3	(135)
80 °C 176 °F	5	4,3	(62,4)	7,2	(104,4)	9,0	(131)
	10	4,2	(60,9)	7,0	(101,5)	8,9	(129)
	25	4,1	(59,5)	6,8	(98,6)	8,6	(125)
90 °C 194 °F	5	3,5	(50,8)	5,9	(85,6)	7,4	(107)
	10	3,4	(49,3)	5,8	(84,1)	7,3	(106)

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

**MF RP** = multi-layer faser – raised pressure resistance

For fittings of butt-fused pipe segments a reduction factor of 0.75 (reduction of the table values by 25 %) is effective.



Management  
System  
ISO 9001:2015  
ISO 14001:2015  
ISO 50001:2011  
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