

*Specialist for air conditioning, heating
and plant technology*

aquatherm **blue**



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AQUATHERM BLUE

Future-proof in all fields of application with individual solutions __

aquatherm has the solution for your challenge - benefit from the versatile application possibilities of aquatherm blue systems. Here you get an exemplary overview of the fields of application where you can trust in aquatherm blue. Yesterday. Today. Tomorrow.



Connection to heating
and cooling



Heating system
construction



Industrial floor heating



Refrigeration



Maritime applications



Swimming pool
technology



Sports floor
heating and cooling

Pipe diameter

Abbreviations pipe structure:

S	single-layer
M	multi-layer
MF	multi-layer, fibre-reinforced
RP	raised pressure resistance
UV	UV-resistant
OT	oxygen-tight
TI	thermally insulated
HI	hardly inflammable

Abbreviations material:

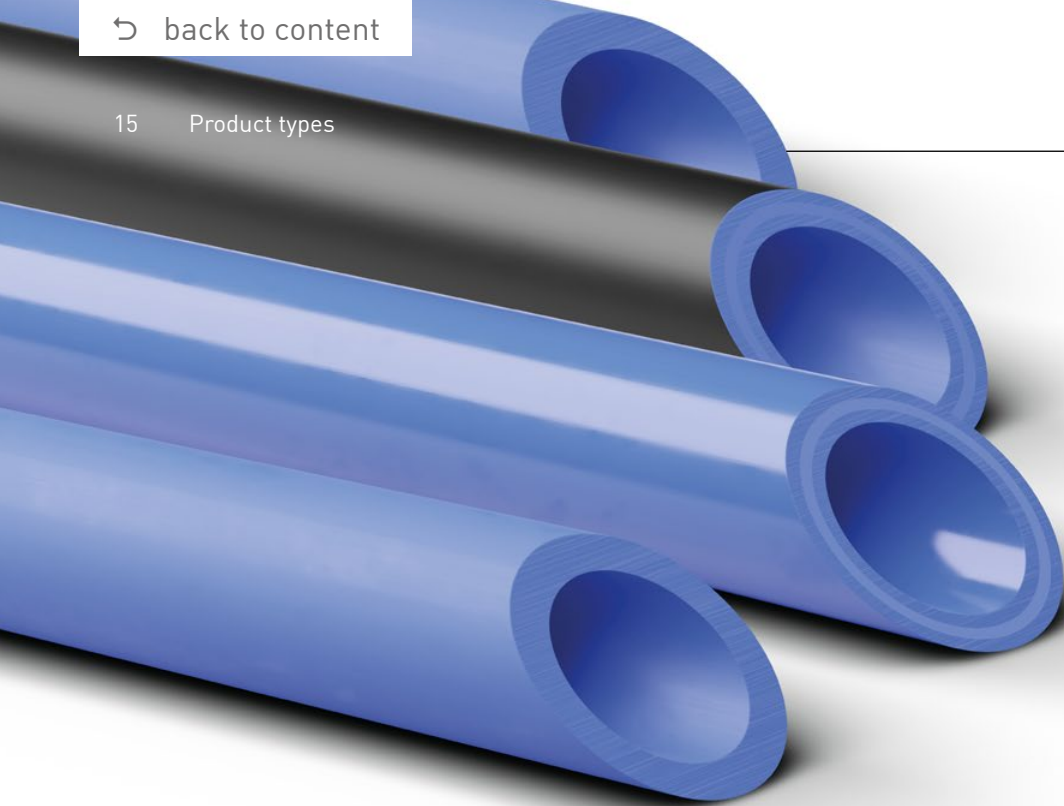
PP	polypropylene
PP-R	polypropylene random copolymer
PP-RCT	polypropylene random copolymer with raised pressure resistance
PE-RT	polyethylene with raised temperature resistance

Fields of applications:

	fire protection sprinkler-systems
	heating and cooling networks
	refrigeration
	connection heating and cooling
	ceiling heating and cooling
	surface heating and cooling
	heating system construction
	industrial floor heating
	maritime applications
	swimming pool technology
	sports floor heating and cooling
	potable water application



aquatherm blue
Product types



PRODUCT TYPES

AQUATHERM BLUE

Made of corrosion-resistant polypropylene, aquatherm blue is ideal for the transport of cooling and heating media in closed systems. It is particularly well suited for a wide variety of industrial applications. The physical properties of the plastic, such as its high temperature capacity and pressure resistance, are tailored to the specific needs of the heating and cooling sector. aquatherm blue is joined via reliable

heat fusion, which produces a virtually leak-free and cohesive unit with excellent safety and durability.

Application areas

- Connection to heating/cooling
- Refrigeration
- Heating system construction
- Maritime applications
- Swimming pool technology
- Sports floor heating/cooling

System components

In combination with the aquatherm green pipe fittings, the system provides all components required for the piping installation of air conditioning, refrigeration, heating systems, and industrial applications. The dimensions range from 20 mm to 630 mm outside diameter.

- Pipes in straight lengths and/or coils
- Fittings
- Flanged joints
- Water point connections and accessories
- Welding devices and machines
- Weld-in and weld-on saddles
- Manifolds
- Shut-off devices
- Installation guide and fastenings
- Transition joints from polypropylene to metal, or from metal to polypropylene



AQUATHERM BLUE stops corrosion damages

Steel pipes used in air conditioning systems are particularly susceptible to corrosion on the outside of the pipe. Condensed water that forms between the insulation

PRODUCT TYPES

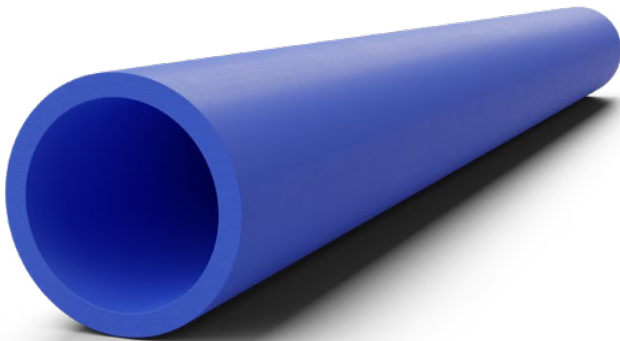
AQUATHERM BLUE – Overview

We offer aquatherm blue in different pipe constructions.

	SDR 7,4	SDR 9,0	SDR 11,0	SDR 17,6
aquatherm blue S			○	
S = single			ø: 20–32 mm	
aquatherm blue MF	○			
MF = multi-layer and fibre-reinforced composite pipe	ø: 20–25 mm			
aquatherm blue MF UV	○			
MF UV = multi-layer and fibre-reinforced and composite pipe, UV-resistant	ø: 20–25 mm			
aquatherm blue MF OT	○			
MF OT = multi-layer and fibre-reinforced composite pipe with diffusion barrier - oxygen tight	ø: 20–25 mm			
aquatherm blue MF RP		○	○	○
multi-layer and fibre-reinforced composite pipe, raised pressure resistance		ø: 32 mm	ø: 40–450 mm	ø: 125–630 mm
aquatherm blue MF RP UV		○	○	○
multi-layer and fibre-reinforced and composite pipe, UV-resistant, raised pressure resistance		ø: 32 mm	ø: 40–450 mm	ø: 160–630 mm
aquatherm blue MF RP OT		○	○	
multi-layer and fibre-reinforced and composite pipe, oxygen tight, raised pressure resistance		ø: 32 mm	ø: 40–250 mm	

AQUATHERM BLUE S

aquatherm blue S is single-layered. Single-layer pipes are particularly suitable for use in installations with a medium temperature of up to 25°C.



AQUATHERM BLUE UV

AQUATHERM BLUE OT

aquatherm blue OT is an fibre reinforced, oxygen-tight pipe that is equipped with an oxygen barrier and thus meets the requirements of DIN 4726.

Easy and quick installation technology

aquatherm blue OT also convinces by its easy but effective installation and connection technology. The pipe end and the connecting part are heated up. After joining, the two elements create a permanent bond. aquatherm blue OT has to be peeled with peeling tools (art. no. 9800050479–9800050488) before processing.

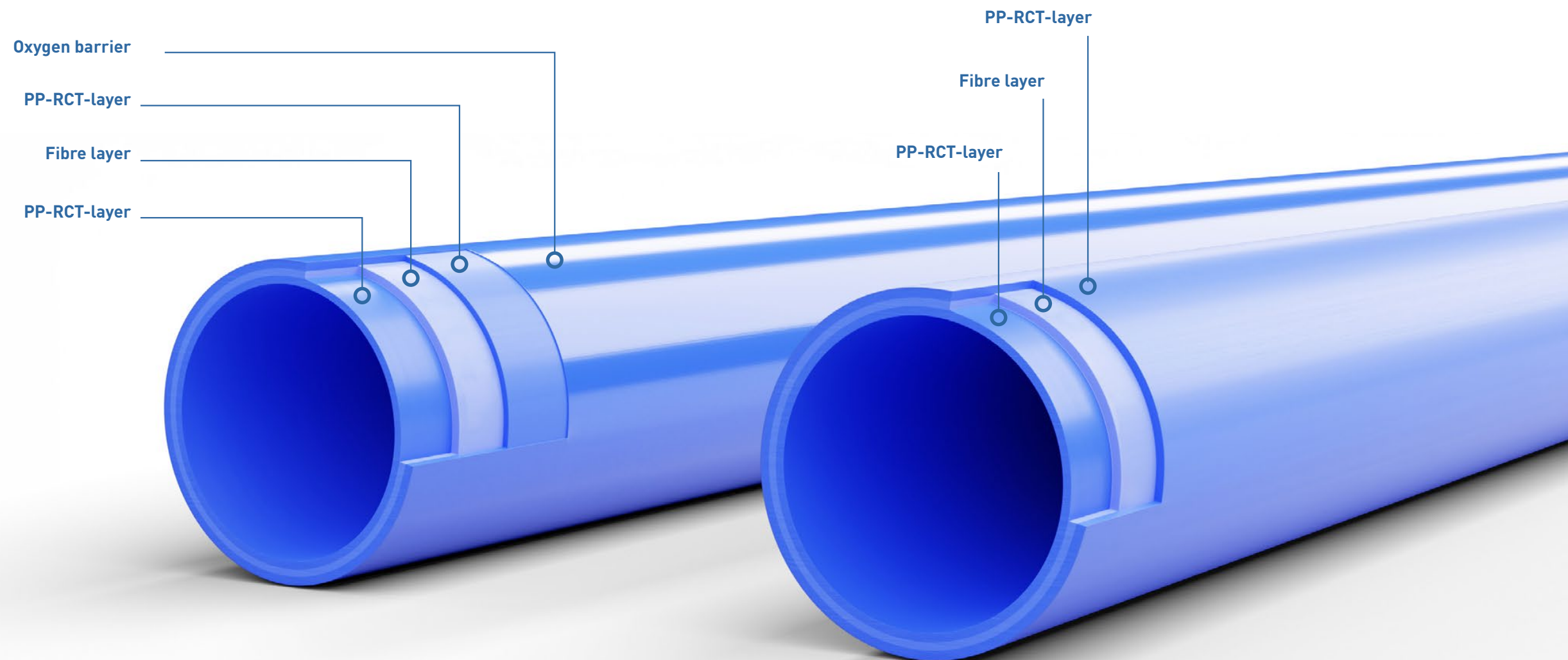
- Oxygen-tight by diffusion barrier
- Certified according to DIN 4726
- Absolutely corrosion resistant
- Less pipe friction
- High stability
- High heat-stability
- High environmental compatibility
- High impact rate
- Resistant against chemicals
- Heat and sound insulating characteristics
- Very good welding properties
- Considerably thinner insulation

AQUATHERM BLUE MF

aquatherm blue MF is a multi-layer fibre-composite pipe. The pipe is made in a multi-layer extrusion process.

The manufacturing process developed by aquatherm enables the integration of glass fibres within the material polypropylene in the middle layer of the pipe. This reinforces the pipe and restricts expansion and contraction.

- The linear expansion is reduced by at least 75 % compared with standard PP pipes
- The flow rate is increased by 20% at the same pressure conditions due to smaller wall thicknesses.
- High stability
- The coefficient of linear expansion is nearly identical to that of metal pipes, so that compared with common plastic pipes the support intervals can be extended and the number of clamps can be reduced.
- Optimum cost-performance ratio
- Lower weight
- High impact rate
- Simply cut and weld





aquatherm blue
**Characteristics and
special features**

AQUATHERM CHARACTERISTICS AND SPECIAL FEATURES

Material **fusiolen®** ____

aquatherm blue is made of corrosion-resistant material. This considerably extends the service life of the pipeline, for example for an air conditioning system. The material of aquatherm is characterized among other things by its special high heat and extraction stability. The physical and chemical properties are

adapted to the special needs of the heating and cooling sector. Due to the exceptionally good welding properties, pipe and fitting fuse to form a homogeneous, materially bonded unit; this has made the material fusiolen® famous worldwide.



The **advantages** of aquatherm pipes
and fusiolen® **polypropylene** ____

- corrosion resistant
- resistant against many chemicals
- high environmental compatibility
- less pipe roughness
- heat and sound insulating characteristics
- very good welding properties
- high heat-stabilised
- high mechanical stability
- lighter in weight than steel and copper
- easy processing
- well-priced
- installation aids and fixings

Our material **fusiolen® Polypropylene** ____

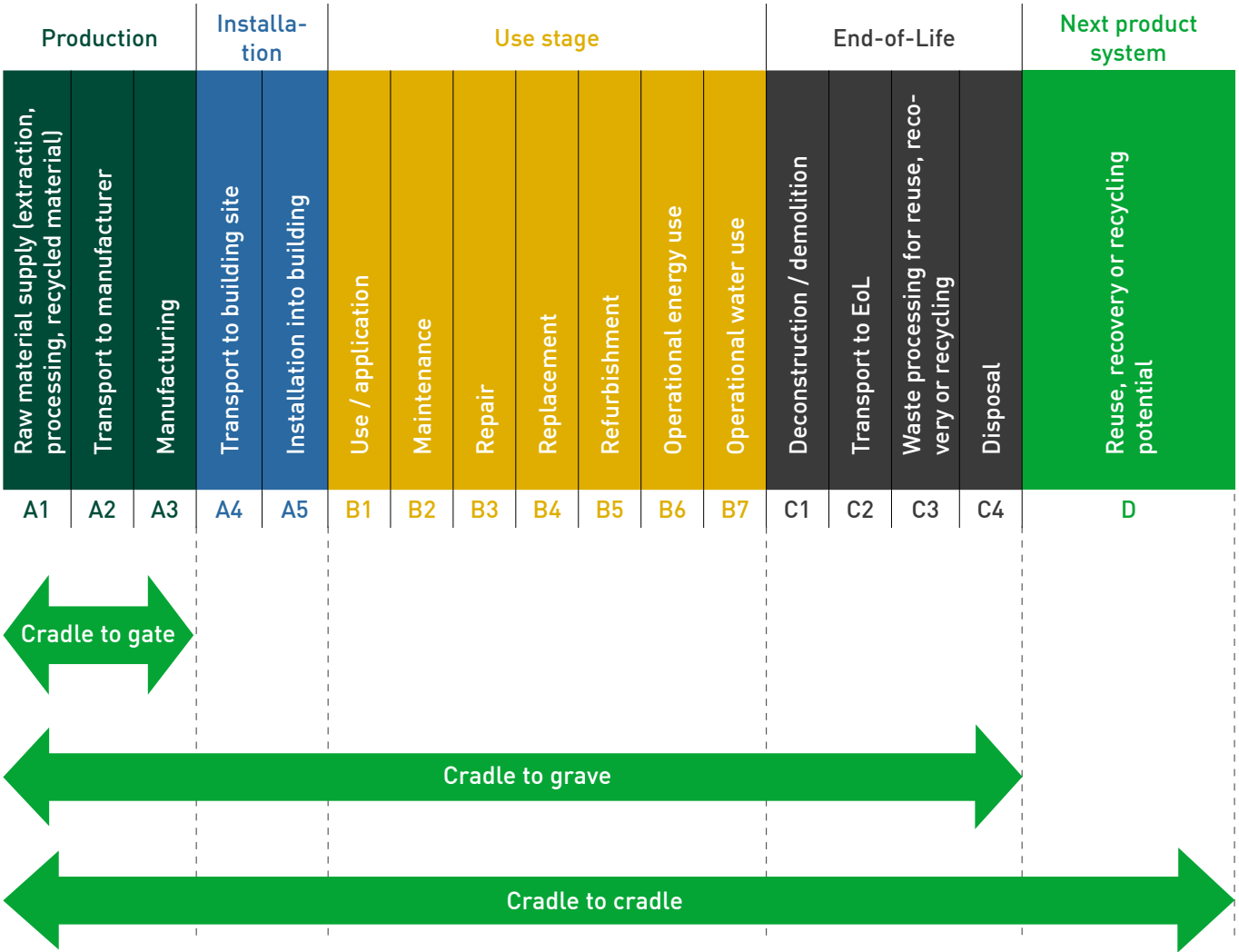
Newly opened markets place ever increasing demands on the pipe material. Versatile applications require the greatest possible independence of the processed materials. Raw materials with novel properties that could not be achieved until then are required. For this reason, aquatherm has been developing and producing its own innovative polypropylene materials for several years, which meet the global challenges in sanitary and heating technology, in air-conditioning and refrigeration technology, in industrial applications and agriculture, in shipbuilding, and in fire protection. Successful results of this research are fusiolen® PP-R, fusiolen® PP-RCT and fusiolen® PP-R FS.

Environment ____

The environmentally friendly

What does the **Product life cycle** include? __

A life cycle assessment considers either the entire life cycle of a product or parts of it. Therefore, there are three different approaches to assessing the product life cycle:



What are the **environmental impact indicators**? __

Life Cycle Assessments provide information on the potential impact of a product (or service) on the environment. EN 15804+A2 describes 13 core Environmental Impact Indicators to be reported for an Environmental Product Declaration and 6 additional optional Environmental Impact Indicators.

Core indicators according to EN 15804+A2:

Core indicator	Unit
GWP-total	kg CO ₂ -Äq.
GWP-fossil	kg CO

Excerpt from the **Rockwool planning and installation aid** __

R 30- to R 90 pipe penetrations for the aquatherm installation systems with non-combustible media, such as drinking water, heating and cooling

Product name/
Material:

aquatherm green
PP-R

SDR 6 S

SDR 7,4 S

SDR 7,4 MF

SDR 7,4 MF UV

SDR 11 S

aquatherm green
PP-RCT

SDR 9 MF RP

SDR 9 MF RP UV

aquatherm blue
PP-R

SDR 7,4 MF

SDR 7,4 MF OT

SDR 7,4 MF UV

SDR 11 S

aquatherm blue
PP-RCT

SDR 9 MF RP

SDR 9 MF RP OT

SDR 9 MF RP UV

SDR 11 MF RP

SDR 11 MF RP OT

SDR 11 MF RP UV

aquatherm red
PP-R (B1)

SDR 7,4 MF HI

aquatherm black
grid connection
pipe



