



Thermo-Floor

underfloor heating & cooling since 1986



Tube for floor heating & cooling

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The plastic tube is the result of over thirty years' knowledge and experience within WTH. The tube is robust and sturdy, but is characterised by its great flexibility. The product is kink resistant due to the wall thickness. This makes the tube extremely suitable for floor and wall heating or cooling, without risk of damage during the construction phase. WTH sets high standards for the product and provides an impressive fifty-year guarantee, the first ten years of which include consequential loss. These advantages make the WTH plastic tube a trusted element in your installation.

Oxygen diffusion

Oxygen diffusion is the process whereby oxygen is taken from the air through the wall of the floor heating tube and is absorbed into the heating water. This can cause corrosion in the installation. The combination of a thick wall and a diffusion barrier means that WTH tubes easily satisfy the applicable international standards.



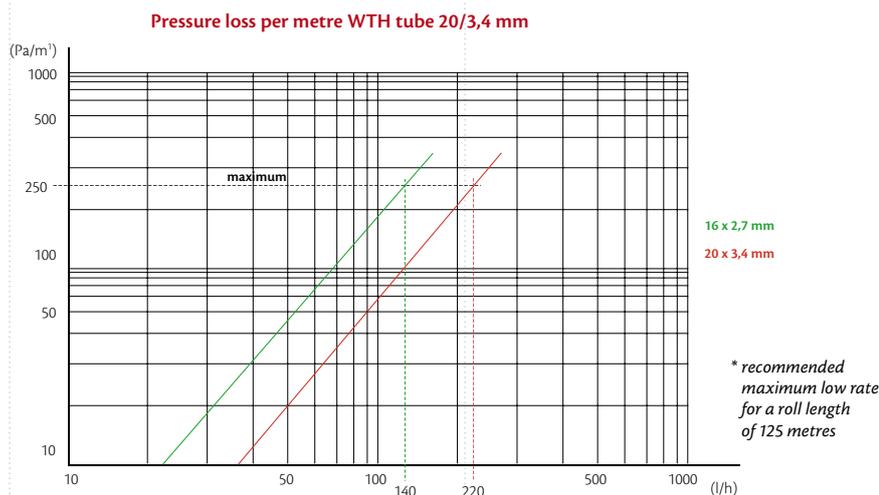
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WTH synthetic tube, diameter 16 and 20 mm,

wall thickness 2,7 resp. 3,4 mm, KIWA BRL 5601

The tube is used in floor and wall heating installations with a maximum water temperature of 50°C and a pressure up to 6 bar. In wall heating installations with a working pressure up to 3 bar, it is possible to increase temperatures up to 55°C.



Standards and guidelines:	The WTH tube satisfies the Germans standard DIN 4726 and the Dutch KIWA assessment guideline BRL5601 and the UK water Regulations (1999).
Workability:	Extremely flexible; can be bent cold. Low vulnerability to damage during construction.
Delivery:	Supplied from stock in roll lengths of 40, 50, 63, 75, 90, 105, 125, 165, 175, 200 and 250 metres.
Dimensions:	The outer diameter of the tube is 16 and 20 mm. The wall is 2,7 rep. 3,4 mm thick.
KIWA/KOMO Approval:	With KIWA/KOMO number K11399/01.

Diffusion Barrier

The tube is co-extruded. During production, an EVOH film is applied to the exterior of the synthetic tube that works as a diffusion barrier. This EVOH (ethylene vinyl alcohol film) has a high diffusion resistance. This production method provides an optimal bond between the tube and the EVOH layer, so that they don't become separated even if the tube is bent excessively.

WTH synthetic tube, diameter 16 mm, wall thickness 2 mm, KIWA BRL 5602

The plastic tube is a PE-RT tube (polyethylene or raised temperature resistance). The basic material is Dowlex 2344; it has been specially developed for use in heating systems.



Standards and guidelines: The WTH tube satisfies the German standard DIN 4726/4721, the Dutch KIWA assessment guideline BRL5602 and the UK Water Regulations (1999).

Application: Floor and wall heating installations with a high temperature requirements.

Dimensions: The outer diameter of the tube is 16 mm.
The wall is 2 mm thick.

KIWA/KOMO Approval: With KIWA/KOMO under number K14281.

Delivery: Supplied from stock in roll lengths of 60, 90, 120, 250 metres and on an 800 metre reel.

Tube for the Thermolink radiator connection system

*WTH plastic tube with corrugated sleeve, diameter 14 mm
and 16 mm, wall thickness 2 mm*



The plastic tube in the WTH Thermolink system has thick walls and is seamlessly extruded.

Thanks to its outstanding mechanical properties, the PE-RT tube can resist high thermal loads (110°C - 3 bar). The tube has a corrugated sleeve, available in two colours (red and blue).

This enables you to make the distinction between the supply and return tubes. The synthetic tubes are supplied in roll lengths of 75 metres.

Alu-Flex tube with aluminium inlay

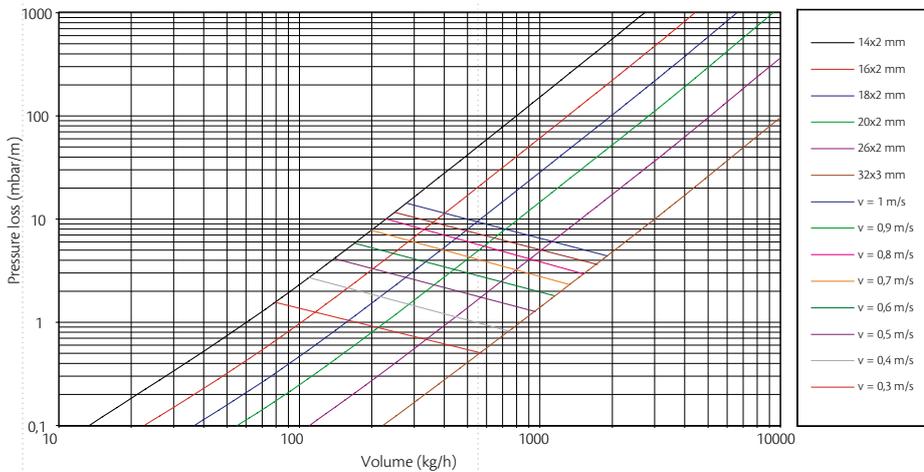
Diameter:	Wall thickness:
14, 16, 18 and 20 mm	2 mm
26 and 32 mm	3 mm



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Pressure loss per metre Alu-Flex



The Alu-Flex tube has a continuous welded aluminium core with a wall thickness of 0,4 mm. This core has a special bonding layer that homogenously binds the inner tube made out of cross-linked polyethylene with the aluminium core. The advantage of the Alu-Flex tube, compared with metal or plastic tubes, is that it contains the properties of both materials, making the tube is very flexible and easily found with a metal detector. The maximum working pressure is 10 bar, the maximum operating temperature is 95°C. The Alu-Flex tube is also available with a corrugated sleeve or thermal insulation. The roll lengths depend on the tube diameter and the desired finish.

Strict quality standards

In the production of Alu-Flex we leave nothing to chance. A strict monitoring of quality, from raw material to end product, means high quality standards are met. During the production process, fully automatic checking of the welded joints takes place, and the diameter and wall thicknesses are continuously subjected to production controls. Alu-Flex is oxygen-resistant and pressure resistant in accordance with DIN 4726 4729 IKP-UNI. When used with the WTH Thermolink system, the system is guaranteed for 10 years.

Product properties

Alu-Flex has a number of significant properties thanks to its particular composition, including:

- 100% oxygen-tight
- a low linear expansion coefficient, equal to that for metal tubes
- flexible
- sound-proof
- retains its shape after bending
- resistant to high temperatures and pressure
- fully corrosion-resistant, also with chemical and electrochemical influences
- can be located in the floor (using metal detector)
- just as light as a plastic tube
- easy to bend, even at low temperatures





Accessories

Fixing material

The tubes can be secured in various ways. The choice depends on the base layer and your own preference. The various methods follow below.

Secure tube directly to the construction floor

Article number:	Description:
E412	Plastic clip
E410	Steel clip/nails
D707	Clip Rails for tube 16 and 20 mm, length 1 metre
D708	Plastic pins for securing the clip rails

Secure tube to a steel construction grate

Article number:	Description:
E402	Tie wires, 120 mm long with a thread eye on both sides
K405	Puller
E414	Tyrap



Secure tube on insulation

Article number:	Description:
H6301	Variso-clip*
K640	Tacker for the variso-clips
H604/607	Isoclip plastic screw clip

* The variso-clip can only be used on the WTH Variso insulation plate and on plates with similar specifications.

Various steel and synthetic single and double brackets are available for Thermolink radiator connection systems.



Connectors

There is a great variety of screw, clip and insert connectors available for the WTH tubes. For more information about the connectors please contact the sales department.

Corrugated Sleeve Tube

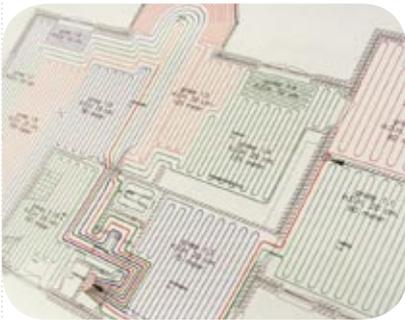
The Thermolink tubes can be supplied with or without a sleeve from the factory. If a high water temperature is used, we recommend you to use a sleeve. We can also supply the sleeve separately. The corrugated sleeve is mainly used where there are high concentrations of tubes (e.g. with a control valve) in floor heating systems. Corrugated sleeve tube for the Thermolink tubes are supplied in rolls of 100 metres, in either red or blue depending on your choice. For the 20 mm WTH tube we supply a black sleeve tube in 50 metre lengths.

Tools

WTH supplies various tools and accessories for securing and working with the tubes. An overview of our range follows below.

Article number:	Description:
K914	Tube cutters for synthetic tube
I1531	Tube cutters for Alu-Flex
K232	Tube spool for WTH tube
K233	Tube trolley for 800 metre spools 16/2 synthetic tube
I1529	Calibration tool for Alu-Flex tubes
Various	Internal and external spring for various Alu-Flex diameters





Comfort in winter and summer

Because of the increasingly warm summers and improved insulation, the temperature in your home keeps on rising. Wouldn't it be perfect to cool your home in a really easy way? This is possible with your current floor heating system. Compared to an air-conditioning system, it offers lots of advantages. For example, cooling with your current floor heating installation is much cheaper and healthier. As well as having all the advantages of floor heating, you can also create a pleasant indoor climate all year round.

Your warranty

Your floor heating tube is covered by no less than **fifty years** of warranty, **ten years of consequential loss warranty**, a five-year system warranty and two years of warranty on the fittings of the manifold. We even give you an **unlimited warranty on our calculations and designs**. WTH is ISO 9001-certified and our floor and wall heating system has KIWA/KOMO-quality approval under numbers K11399/01 and K11400/01 (the Dutch equivalent to British Board of Agreement approval).

An offer without any obligation

Thermo-Floor would be happy to provide you with a no-obligation quote. Just send us the Plans and Elevations of your construction drawings. If you subsequently choose our system, we will make an installation drawing for you, free of charge. Our own or specially selected dealers deliver our materials and will provide advice. For "self-installers" there is a technical help line available during working hours.

You now have a general idea about all the various possibilities floor heating can offer you. Thermo-Floor hopes that we can be of service to you in the near future. Do you want to know more about a specific subject? On our website, www.thermo-floor.co.uk you can find detailed information about every topic. But, of course, you are very welcome to get in touch with us too.

Your comfort, our mission!

Thermo-Floor and WTH Floor Heating are leading suppliers of floor and wall systems for heating and cooling. For over thirty years, in homes and industrial buildings, we have successfully developed, produced and sold high-quality systems ensuring low energy consumption and maximum comfort.



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