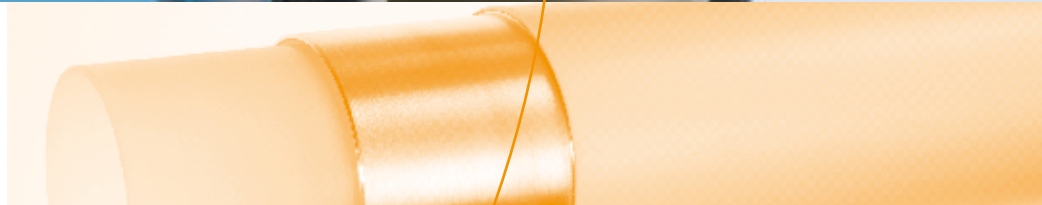


BUILDING TECHNOLOGY



What do **WATER SUPPLY SYSTEMS**
have in common with **HEATING SYSTEMS?** **alpex-duo®**

NEW! 16 mm – 32 mm
with F/TH/B crimping contour





Pipes and fittings for heating and drinking water supply lines

What does quality have in common with efficiency? alpex-duo®

One solution

Whether potable hot and cold water plumbing systems or heating systems are needed: alpex-duo® is the best solution. Our high-quality multi-layer composite cross-linked polyethylene/aluminum/cross-linked polyethylene (AL-PEX) pipe and a large array of fittings ensure a quick and reliable installation for both applications.

Customized fittings

Fittings are available in a wide assortment of perfectly matched dezincification-resistant brass and high-grade polyphenylsulfon (PPSU) plastic fittings: You can pick and choose the perfect fitting, whether plastic or metal, for your particular needs. Our multi-layer composite pipe system offers the best solution for multiple needs – anything from double wall-mounted

elbows for water supply piping installations to skirting board systems for heating systems. A quick peek through the inspection hole in the fixation ring will indicate that the fitting has been properly installed.

Satisfaction guaranteed

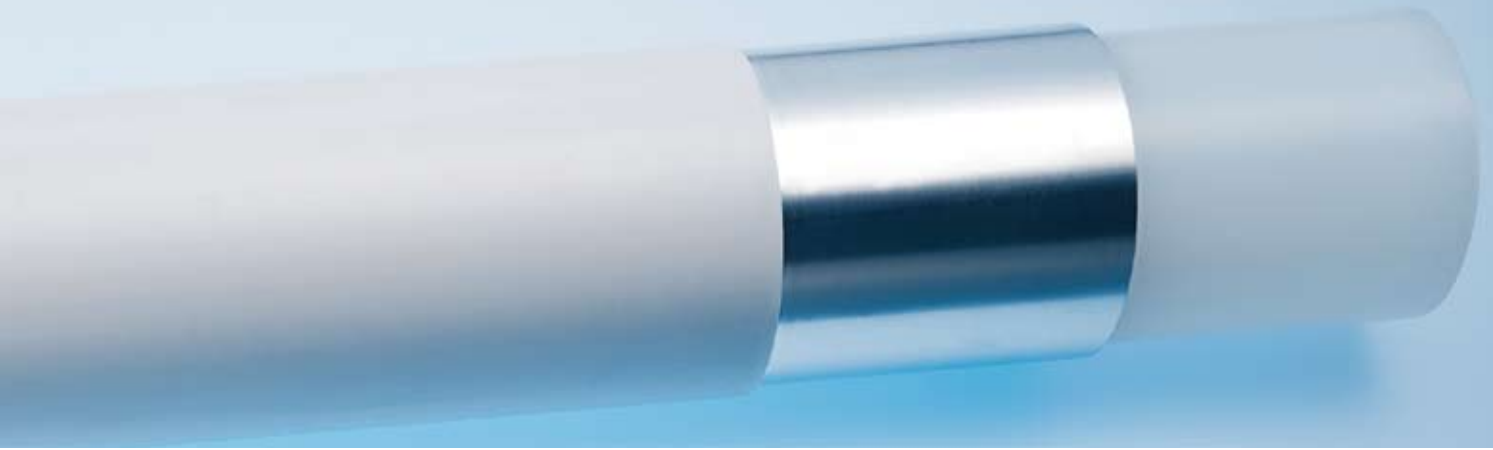
Seven different pipe dimensions, ranging from 16 mm to 63 mm, and minimum bend radii (1.5 x the outer diameter for the smallest pipe, and 4.5 x for the largest pipe) allow for flexible customized installations of water supply piping and heating systems – from the basement to the attic. International approvals certify the system's quality. No wonder FRÄNKISCHE provides a 10-year warranty for the entire range of alpex-duo® products.

All in one

The multi-layer composite alpex-duo® pipe system combines the advantages of both metal (e.g. low linear expansion) and plastic (e.g. high corrosion resistance). The tubing offers advantages to plumbers (e.g. dimensional stability) and home builders (e.g. excellent sound absorption properties), and is ideal for use in potable hot and cold water plumbing (e.g. incrustation-free) and heating systems (100% oxygen-tight). Our fittings are manufactured to the highest possible standards and are absolutely reliable: Working with alpex-duo® means that you have all the advantages on your side.



Nr: DW-8501AT2396



Production: LaserTIG welded aluminium layer

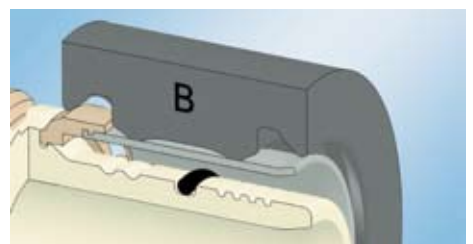
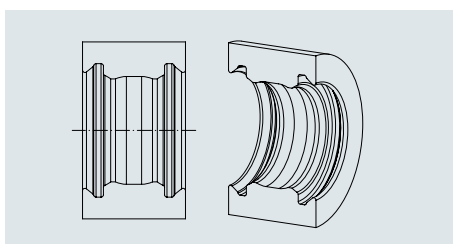
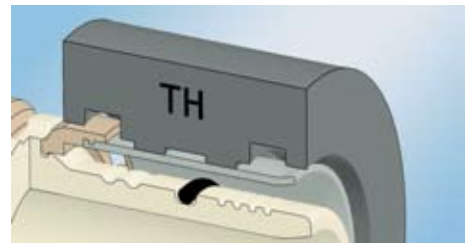
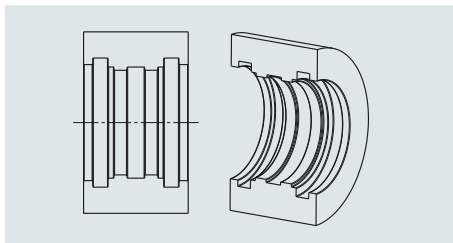
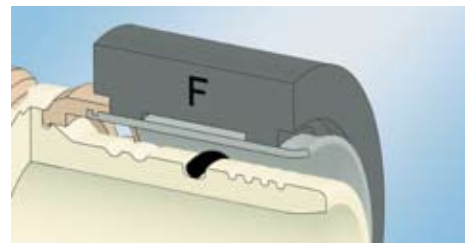
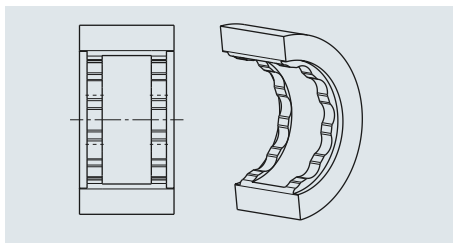


Product range: Whether potable water or heating applications – FRÄNKISCHE offers the perfect fitting for all situations

3 different crimping contours offer unlimited possibilities

Intelligent fittings (16, 20, 26 and 32 mm) allow the alpex-duo® multi-layer composite pipe system to be crimped using three different crimping contours (F, TH and B). For a list of all approved crimp tools with F, TH or B crimping contour, please refer to the export compatibility list (Please contact our customer care team at www.fraenkische-haustechnik.de or +49 (9525) 88297 for a free copy).

alpex-duo® pipes, in sizes of 40, 50 and 63 mm, must be crimped using F crimping contour only.

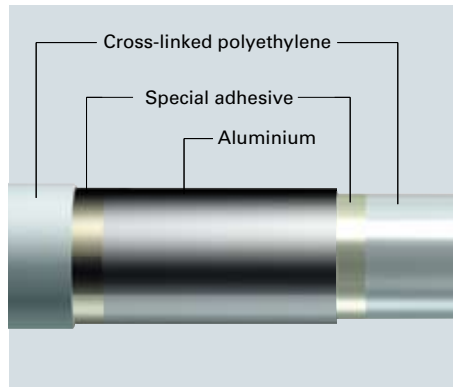


F, TH and B crimping contour: For a quick and easy crimping of pipes, ranging in size from 16 to 32 mm.



The multi-layer composite pipe

The high-quality alpeX-duo® multi-layer composite pipe for use in heating and drinking water systems consists of a laser TIG welded aluminium core and an inner and outer layer of cross-linked polyethylene, permanently bonded together by adhesive to create a high-quality durable and reliable pipe.



Metal and plastic composite pipe



Manually bendable to the desired shape ...



...or using bending springs ...



...or using a hydraulic bending machine (for pipes up to 32 mm diameter)

What does a high-quality multi-layer composite pipe have in c

Advantages of the multi-layer composite pipe

- > Excellent sound absorption properties
- > Optimum flow properties
- > Corrosion resistant
- > High chemical resistance
- > Good compatibility with other materials
- > Low linear thermal expansion; comparable to copper
- > Withstands operating temperatures of up to 95°C (long-term) and 110°C (short-term)
- > Withstands operating pressures of up to 10 bar

Critical advantages for water supply piping systems

- > Hygienic and toxic-free
- > Incrustation-free

Critical advantages for heating systems

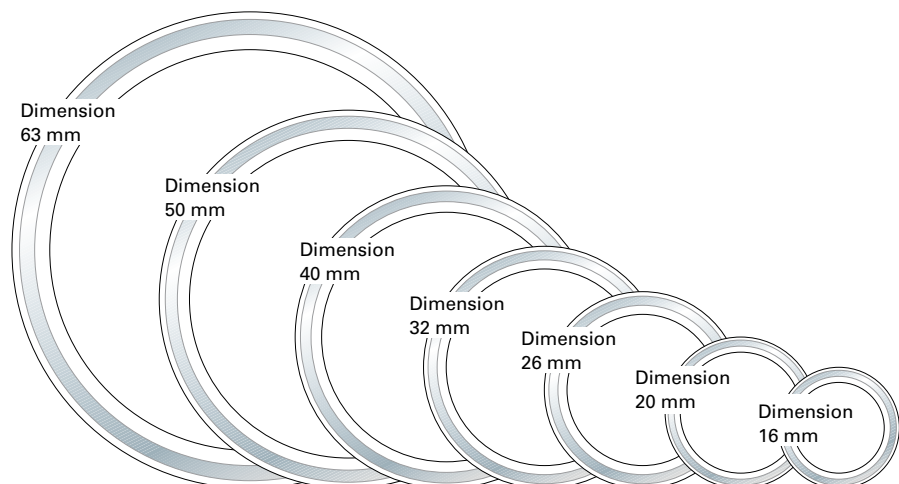
- > 100% oxygen-tight

Pipes to measure – up to 63 mm

Properly functioning potable hot and cold water plumbing and heating systems require pipe dimensions that match the specific situation. alpeX-duo® pipes are available in seven different sizes, from 16 mm to 63 mm.

Down to the last detail

All pipe dimensions of the alpeX-duo® system can be easily bent which reduces or eliminates the need for connections and fittings. The multi-layer composite pipe allows for optimum bend radii. Pipes of a diameter of up to 20 x 2.0 mm can be easily bent by hand.





Making crimp connections

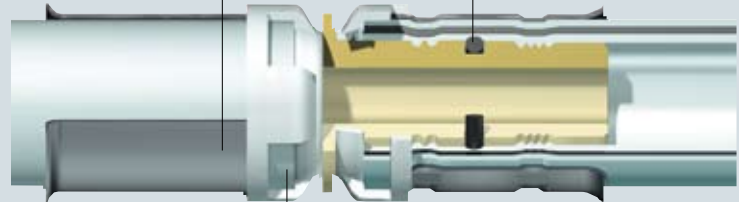
The fittings

Fittings provide reliable connections between pipes. Fitting, O-Ring, fixation ring and compression sleeve fit perfectly together.

Brilliantly designed

Stainless steel sleeve with tool guide

O-Ring – for permanent tightness of the crimp fitting



Inspection hole – a quick peek through the inspection hole will indicate that the fitting has been properly installed

Common with perfect fitting technology? alpex-duo®

Finest materials

Our fittings are made of PPSU, a high-quality material tested in space. Cross-pieces in the fitting structure increase stability for dimensions from 16 mm to 32 mm.



Plastic to plastic

PPSU: high-quality plastic offers economic advantages



Metal to metal

Brass/red brass: whenever (dezincification-resistant) metal is needed – for threads and manifolds

Reliability guaranteed

FRÄNKISCHE stands behind all its products and provides a 10-year warranty for alpex-duo® products.



International accreditations and certifications

Numerous accreditations and certifications from renowned international institutions confirm the high quality and reliability of the alpex-duo® heating and drinking water supply system.





1. The tubing should be cut squarely and evenly using a pipe cutter



2. Calibrate and deburr the pipe ends using the original FRÄNKISCHE deburrer



The crimping technique

Fittings are installed using the crimping technique. Only four steps are required to ensure a proper installation of the fittings.

What do benefits have in common with reliability? alpex-duo®

Pipe installation

The alpex-duo® potable hot and cold water plumbing and heating system has been developed with practical demands and considerations in mind. The installation of both the heating and the drinking water supply system is quick and reliable, thus providing an efficient and economical solution.

Special crimping jaws

The required crimping jaws and loops are compatible with standard crimping tools and are easy and quick to insert into the tool. It only takes a few simple steps.

Service

Suitable crimp tools are listed at www.fraenkische-haustechnik.de. Additional information, such as price lists, technical literature and installation instructions can be ordered directly from FRÄNKISCHE.

Key installation advantages of multi-layer composite pipes

- > Quick installation
- > High dimensional stability
- > Easy to bend
- > Light-weight
- > Unnecessary to consider flow rule
- > Excellent stability

Compatible with standard crimp tools

- > F, TH and B crimping contour of crimping jaws for sizes ranging from 16 mm to 32 mm
- > F crimping contour with crimping loop and insert crimping jaws for sizes of 40, 50 and 63 mm



3. Insert the fitting into the pipe – a quick peek through the inspection hole will indicate that the fitting has been properly installed

4. Make crimp connections



alpex-duo® with sheathing

The alpex-duo® MH pipe-in-pipe system has a protective sheathing that will provide added sound insulation and help prevent condensation on the multi-layer composite pipe. The system combines extra comfort with reliability – even in the most challenging installation situations.

Pipe-in-pipe



Cost effective multi-layer composite pipe system for heating installations

The alpex-therm® XS multi-layer composite pipe system was specifically developed by FRÄNKISCHE for heating applications. Sizes of alpex-therm® XS pipes range from 14, 16 to 20 mm. One of the characteristic features of this pipe is a particularly thin aluminium layer which fulfills the requirements for dimensional stability in heating installations. The screwing technique is used to connect size 14 pipes via the manifold to the panel radiator, without crimping tools and additional elbows, making this an especially economical solution. alpex-therm® XS is compatible with all alpex-duo® fittings and also available as pipe-in-pipe system.



THE COMPANY



A tradition of innovation



As a result of our many years of experience designing and manufacturing pipes and production lines, FRÄNKISCHE develops and manufactures technically superior corrugated pipes, pipe systems and production lines.

At our headquarters in Königsberg and other branch office locations, subsidiaries, and affiliates in Europe, Asia and the U.S., almost 1,500 highly motivated employees work on solutions for drainage and electrical systems, building technology, industrial applications and mechanical engineering, and on developing and manufacturing production lines. The pipe

systems are for multiple applications. Some examples of our first-class system solutions include: highly complex drainage systems for use in civil engineering and road construction, a broad range of electric conduit systems for use in civil and mechanical engineering, heating and potable water pipes for use in building technology or cable protection systems and fluid lines for use in the automotive industry.

With 100 years of experience FRÄNKISCHE combines know-how and ambition for intelligent future innovations, which makes us the ideal partner for complex and technically challenging tasks.

HEATING AND POTABLE WATER SYSTEMS with multi-layer composite pipes
UNDERFLOOR HEATING with PEX pipes and multi-layer composite pipes
SPECIAL APPLICATIONS with PEX pipes and multi-layer composite pipes