

**Pre-insulated pipes  
for energy efficient heat  
and water distribution  
networks**





## ➤ Ecoflex – for local distribution networks & residential connections

Efforts to achieve Net Zero and address climate change are increasingly prioritising district heating and renewable energies. The use of flexible, energy-saving, and intelligent district heating networks is crucial for utilising renewable energy sources and delivering heating energy efficiently.

Uponor's Ecoflex range offers energy-efficient pre-insulated pipes, fittings, and accessories for heating, cooling, and water distribution, providing excellent heat loss performance, high flexibility, and easy installation for buildings or local distribution networks. Our comprehensive product range covers the entire district heating system, from the energy source to the building, and has been successfully installed worldwide in various applications, including power plants, boiler rooms, and district heating substations.



## ➤ Why choose Ecoflex

- High quality insulation for lower heat losses.
- Lightweight and easy to lay around corners and obstacles.
- Wide range of pipes for heating as well as for hot and cold water, both inside and outside a building.
- Up to 200 metres installation as a continuous pipe run.
- Heat load capacity as high as 1800 kW.
- Self-adjusting pipe structure, no need for compensators.
- Fast building progress / short assembly times.
- Easy, reliable jointing method, including insulation of connections and branches.
- Service life of 30 years according to BS-EN 15632.
- Pre-cut pipe lengths to the site as needed.
- 24 to 96 hour delivery service to the site depending on location.

## ➤ Why choose Uponor

- Comprehensive support from experienced engineers for planning and layout.
- Product training and site support.
- Extensive sales and distribution network.
- Quality management system according to ISO 9001 and 14001.

## ➤ Uponor Ecoflex – made to last

Uponor Ecoflex pre-insulated pipes are manufactured according to European Standard BS-EN 15632 under quality management system certified according to ISO 9001 and 14001 standards. On top of that we also use independent 3rd party organisations to certify the quality and performance of our products. As an example, Uponor Ecoflex Thermo pipes, Wipex fittings and Ecoflex accessories are subject to WRAS and Kiwa approval and certification. The Ecoflex Thermo heat loss values are also covered by the DIN Certco certification.

And it does not stop here: we are also committed to continuously improving our products and operations in order to make them more sustainable in all aspects.

You can build on Uponor Ecoflex quality!

**MORE THAN  
35 MILLION  
METRES  
INSTALLED  
WORLD WIDE**





# ➤ Uponor Ecoflex Thermo – for energy efficient heating networks and house connections

The Uponor Ecoflex Thermo product range offers pre-insulated pipes for heating and cooling, covering both single buildings as well as complete local heating and cooling networks.

Ecoflex is a valuable product for organisations seeking to enhance their energy efficiency and sustainability goals. The exceptional insulation

provided by Ecoflex Thermo pipe significantly contributes to the system's overall energy efficiency, making it high-performing and environmentally friendly.



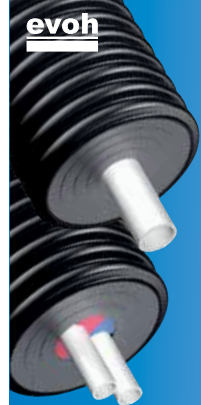
## FIELDS OF USE

- Connection of communities and individual large heat consumers to central power plants, woodchip plants and biomass boilers.
- Local networks for the heating and cooling water supply.
- Heating and cooling distribution within industrial and agricultural production plants.
- Heat transfer between single buildings, e.g., from a heat pump placed in a separate technical building, garden or garage.

## BENEFITS

- High-quality PE-Xa service pipes with EVOH oxygen barrier.
- Thermal insulation made of PE-X foam.
- Single and twin pipe configurations for efficient installations with service pipe diameter up to 125 mm.
- Easily connected with reliable Wipex compression fittings or Quick & Easy fitting technology.


# ➤ Ecoflex Thermo: a versatile range for optimum system design



**UPONOR ECOFLEX THERMO**

**Primary application** ➤ Heating water  
**Secondary applications** ➤ Cooling water  
 ➤ Chemicals (call for confirmation)  
**Service pipe** ➤ PE-Xa with EVOH oxygen barrier, 6 or 10 bar  
**Option** ➤ Heating cable  
**Insulating material** ➤ PE-X foam  
**Jacket pipe material** ➤ PE-HD


80 °C max.95 °C    6 bar    25–110 mm (Single)  
25–63 mm (Twin)



**UPONOR ECOFLEX VIP THERMO**

**Primary application** ➤ Heating and cooling water  
**Service pipe** ➤ PE-Xa with EVOH oxygen barrier, 6 bar  
**Insulating material** ➤ Vacuum insulated panel + PE-X foam  
**Jacket pipe material** ➤ PE-HD


80 °C max.95 °C    6 bar    40–140 mm (Single)  
25–75 mm (Twin)



**UPONOR ECOFLEX THERMO MINI**

**Primary application** ➤ Heating and cooling water  
**Service pipe** ➤ PE-Xa with EVOH oxygen barrier, 6 bar  
**Insulating material** ➤ PE-X foam  
**Jacket pipe material** ➤ PE-HD


80 °C max.95 °C    6 bar    25–32 mm



**UPONOR ECOFLEX QUATTRO**

**Primary application** ➤ Heating and warm tap water with circulation  
**Service pipe** ➤ PE-Xa, 10 bar (for warm tap water) PE-Xa with EVOH oxygen barrier, 6 bar (for heating)  
**Insulating material** ➤ PE-X foam  
**Jacket pipe material** ➤ PE-HD

70/80 °C max.95 °C    6 bar and 10 bar    25–40 mm



**UPONOR ECOFLEX THERMO TWIN HP**

**Primary application** ➤ Heating water with protective tubes for cables  
**Service pipe** ➤ PE-Xa with EVOH oxygen barrier, 6 bar  
**Insulating material** ➤ PE-X foam  
**Jacket pipe material** ➤ PE-HD

80 °C max.95 °C    6 bar    32–40 mm



## ➤ Uponor Ecoflex Aqua – warm water supply with minimal heat loss

Uponor Ecoflex Aqua and Quattro pipes are used for energy-efficient and hygienic underground transportation of hot and cold potable tap water.

The pipes are temperature resistant, corrosion and calcification free. Ecoflex Aqua pipes are pre-insulated with flexible, best in class PE-X foam insulation for reduced heat loss.



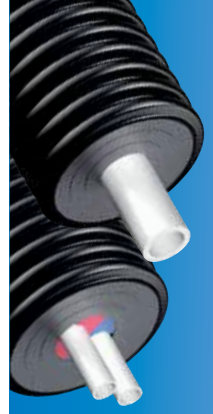
### FIELDS OF USE

- Connection of communities or individual buildings to a central heating water boiler.
- Transport of hot and cold potable tap water between single buildings.
- Hot and cold potable tap water distribution within industrial and agricultural production plants.
- All-in-one heating and hot and cold potable tap water supply for single buildings with only one pipe (Ecoflex Quattro).

### BENEFITS

- Hygienic PE-Xa service pipes, resistant to calcification and corrosion.
- Comprehensive range of single and twin pipe configurations up to 110 mm service pipe.
- Aqua Twin pipes are compact in size requiring a smaller trench with separate coloured pipes for flow and return indicators.
- Quattro pipes for heating water have flow and return pipes for an efficient quick install with one pipe required for any building.

## ➤ Ecoflex Aqua: for a clean and hygienic solution



**UPONOR ECOFLEX AQUA**

**Primary application** ➤ Warm tap water  
➤ Warm tap water with circulation

**Secondary applications** ➤ Foodstuffs, chemicals (call for confirmation)


**Service pipe** ➤ PE-Xa, 10 bar

**Option** ➤ Heating cable

**Insulating material** ➤ PE-X foam

**Jacket pipe material** ➤ PE-HD

70 °C max.95 °C    10 bar    25–63 mm (Single)  
25–50 mm (Twin)



**UPONOR ECOFLEX QUATTRO**


**Primary application** ➤ Heating water  
➤ Warm tap water with circulation

**Service pipe** ➤ PE-Xa, 10 bar (for warm tap water)  
➤ PE-Xa with EVOH oxygen barrier, 6 bar (for heating)

**Insulating material** ➤ PE-X foam

**Jacket pipe material** ➤ PE-HD

70/80 °C max.95 °C    6 bar and 10 bar    25–32 mm



**UPONOR ECOFLEX VIP AQUA**

**Primary application** ➤ Warm tap water  
➤ Warm tap water with circulation

**Service pipe** ➤ PE-Xa, 10 bar

**Option** ➤ Heating cable

**Insulating material** ➤ Vacuum insulated panel + PE-X foam

**Jacket pipe material** ➤ PE-HD

70 °C max.95 °C    10 bar    40–110 mm (Single)  
25–63 mm (Twin)



# ➤ Uponor Ecoflex Supra reliable water supply for frost protection

The Uponor Ecoflex Supra pipes are a long lasting PE pipe with the best crack resistance performance on the market suitable for reliable water supply in cold conditions.

The pre-insulated pipes can have frost protection cables inside and are encased in the highest quality high quality PE-X insulation.

Uponor Ecoflex Supra offers excellent protection against cold conditions or where trench depths are low and require additional protection from frost. The extensive product range of flexible pipes include electrical connections for easy installation.

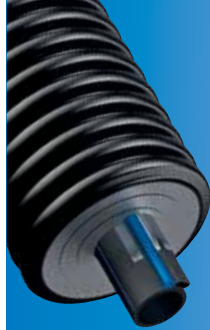
## FIELDS OF USE

- Frost-proof underground transport of cold tap water to single buildings.
- Frost-proof above-ground cold water supply of temporary residential containers on major construction sites with ambient temperatures down to -50 °C.
- Transport of cold tap water or cooling water in industrial production plants.
- Frost proof drainage of buildings in installations where there is a risk of freezing.

## BENEFITS

- **Reliable water distribution in cold conditions.**
- **Flexibility and good insulation enables shallow buried installations.**
- **Energy-efficient freeze protection.**

# ➤ Uponor Ecoflex Supra cold tap water distribution



**UPONOR ECOFLEX SUPRA PLUS**

**Primary application** ➤ Transport of cold water ➤ Freeze-protection

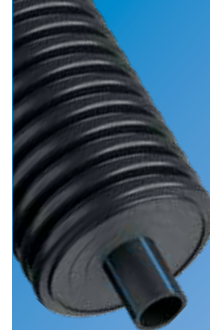
**Service pipe** ➤ PE 100 RC, 16 bar

**Cable** ➤ 1 self-regulating cable up to 150m (optionally 2 cables on request)

**Insulating material** ➤ PE-X foam

**Jacket pipe material** ➤ PE-HD

20 °C    16 bar    25-110 mm



**UPONOR ECOFLEX SUPRA**


**Primary application** ➤ Cold tap water ➤ Cooling water

**Service pipe** ➤ PE 100 RC, 16 bar

**Insulating material** ➤ PE-X foam

**Jacket pipe material** ➤ PE-HD

20 °C    16 bar    25-110 mm



**UPONOR SUPRA CONTROL**

**Control unit** ➤ Energy efficient control of heating power, up to 50% energy saving

**Connections** ➤ Continuous electrical connection up to 150m ➤ Easy electrical connections with clear instructions

**Sensor cable** ➤ A continuous PE tube along a PE service pipe ensures easy installation of temperature sensor at every cut length



## ➤ Uponor Ecoflex Pipes at a glance

Main Application	Ecoflex VIP Thermo	Ecoflex Thermo	Ecoflex Thermo Mini
Heating water	•	•	•
Cooling water	•	•	•
<b>Variations</b>			
Optional heating cable (only for single pipes)		•	
Single / Twin	•/•	•/•	•/-
<b>Material</b>			
Medium pipe	PE-Xa with EVOH	PE-Xa with EVOH	PE-Xa with EVOH
Insulating material	VIP + PE-X	PE-X	PE-X
Insulation performance	++++	+++	+
Jacket pipes	PE-HD	PE-HD	PE-HD

Main Application	Ecoflex Quattro	Ecoflex Thermo Twin HP	Ecoflex Aqua	Ecoflex VIP Aqua
Tap water, warm	•		•	•
Heating water	•	•		
<b>Variations</b>				
Optional heating cable (only for single pipes)			•	
Single / Twin	- /•	- /•	•/•	•/•
<b>Material</b>				
Medium pipe	PE-Xa and PE-Xa with EVOH	PE-Xa with EVOH	PE-Xa	PE-Xa
Insulating material	PE-X	PE-X	PE-X	VIP + PE-X
Insulation performance				++++
Jacket pipes	PE-HD	PE-HD	PE-HD	PE-HD

Main Application	Supra	Supra PLUS
Cooling water	•	
Transport of cold water	•	•
Freeze-protection		•
<b>Other Applications</b>		
Pressurized waste water	•	•
Foodstuffs	On request	On request
Chemicals	On request	On request
<b>Materials</b>		
Medium pipe	PE 100 RC Black	PE 100 RC Black
Insulation	PE-X	PE-X
Jacket pipes	PE-HD	PE-HD
Cable		Self-regulating cable

## ➤ The sum of superior features makes Uponor Ecoflex pipes a reliable choice

**High mechanical strength**  
The PE-HD jacket pipe: the high quality material and the special profile of the jacked pipe makes Ecoflex Pipes extra flexible and highly resistant to static and mechanical loads. Suitable for traffic loads up to 60 tons.

**Durable and exceptionally flexible**  
The insulation made from cross linked polyethylene foam (PE-X): ideal insulating properties, ageing-resistant, resistance to moisture and very high flexibility.

**Protects water from freezing**  
Heat traced freeze protected Supra products equipped with either self-regulated or constant resistance cable together with insulation guarantee reliable water supply in arctic conditions.

**Designed for cold liquids**  
The PE-HD (PE 100 RC) service pipes: provides maximum safety and service life in cold water applications up to 16 bar and are resistant against many aggressive media.

**Reliable and hygienic**  
The PE-Xa service pipe: hygienic, temperature resistant and resistant to calcification and stress cracking. For heating applications coated with an EVOH oxygen barrier to avoid oxygen migration into the system.

**Extreme flexibility with outstanding insulation**  
Vacuum Insulated Panel (VIP) technology ensures reduced heat losses by up to 60%.

**Clear identification of service pipes**  
The coloured centring profile ensures a clear identification of the service pipes

**Compact dimensions for narrow trenches**  
Twin and Quattro service pipes: combining several service pipes in one pre-insulated Ecoflex pipes reduces the required trench dimensions and thus the installation effort.



## ➤ Uponor Wipex – reliable connection without special tools

The Uponor Wipex fittings are specifically designed for connecting all Ecoflex PE-Xa pipes for the purposes of hot and cold domestic services, chilled water and heating applications.

The tensile strength of the Uponor Wipex coupling is higher than the tensile strength of the pipe, and the sealing performance is unaffected by temperature fluctuations.



### WIPEX DZR BRASS JOINTINGS

- Uponor Wipex fittings have a robust and simple design.
- The fittings are easy and efficient to install even in most challenging locations and spaces.
- Additional fittings are available for Uponor S-Press and RS connections

### BENEFITS

- The main components of the fittings are made of DZR brass (resistant to dezincification).
- O-rings are used to make a seal between the couplings and pipe fittings.
- Additional sealing using teflon or sealing tape is not required.
- The Wipex fitting system allows for an extremely wide range of connection combinations.
- No special tools required – only two fixed wrenches and pliers.

## ➤ Uponor Q&E – simple and fast connection technology without seals

The Uponor Q&E system is based upon the unique properties of Uponor PE-Xa pipes and the revolutionary Q&E fitting. It enables you to mount a fitting with a simple battery powered expander tool. Using the expansion tool the shrink back effect of the PE-Xa will tightly seal the pipe directly on to the brass or PPSU fitting.

The Q&E technique has been developed by Uponor and designed exclusively for our Q&E system with dimensions up to 75mm in pressure classes PN 6 and PN 10.



### UPONOR Q&E CONNECTION TECHNOLOGY

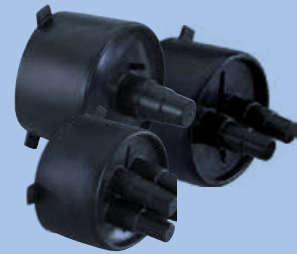
- Innovative and permanently tight connection technology.
- Very high pull-out resistance.
- Pipe material is also the sealing material, therefore O-rings not required.

### BENEFITS

- Economical and efficient product.
- Corrosion free and calcification free.
- Durable and reliable.
- Quick to install, saves time and cost.



# ➤ Uponor Ecoflex accessories – for finishing high quality installations



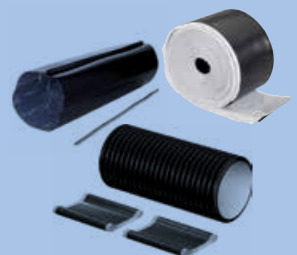
**Uponor Ecoflex rubber end caps for Single, Twin and Quattro pipes.**



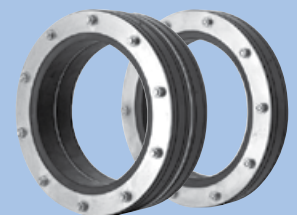
**Uponor Ecoflex insulation sets.**



**Connection sets and control units for Ecoflex Supra PLUS heating cable.**



**Jacket joint sets, sleeves and tapes for pipe connections and repair.**



**Uponor Ecoflex wall sealings and wall ducts (NPW and PWP).**

The Uponor Ecoflex system includes all accessories for complete heating, cooling and tap water networks. Accessories are designed to complement the Uponor Ecoflex pipes and fittings.

There are accessories available for protecting connections in the ground, to seal a house entry and for sealing the pipe ends. For heat traced products there are also electrical components for cable connections.

- **Full range of components for all installation needs.**
- **Perfectly matched to the Uponor Ecoflex pipe systems.**
- **Practical and easy to install without special tools.**



# ➤ Build on Uponor

Uponor is a leading global provider of solutions that efficiently and effectively move water through cities, buildings, and homes. Our safe drinking water, energy-efficient radiant heating and cooling systems, and reliable infrastructure solutions are sold in more than 80 countries.



## Want to Find Out More?

### BROWSE

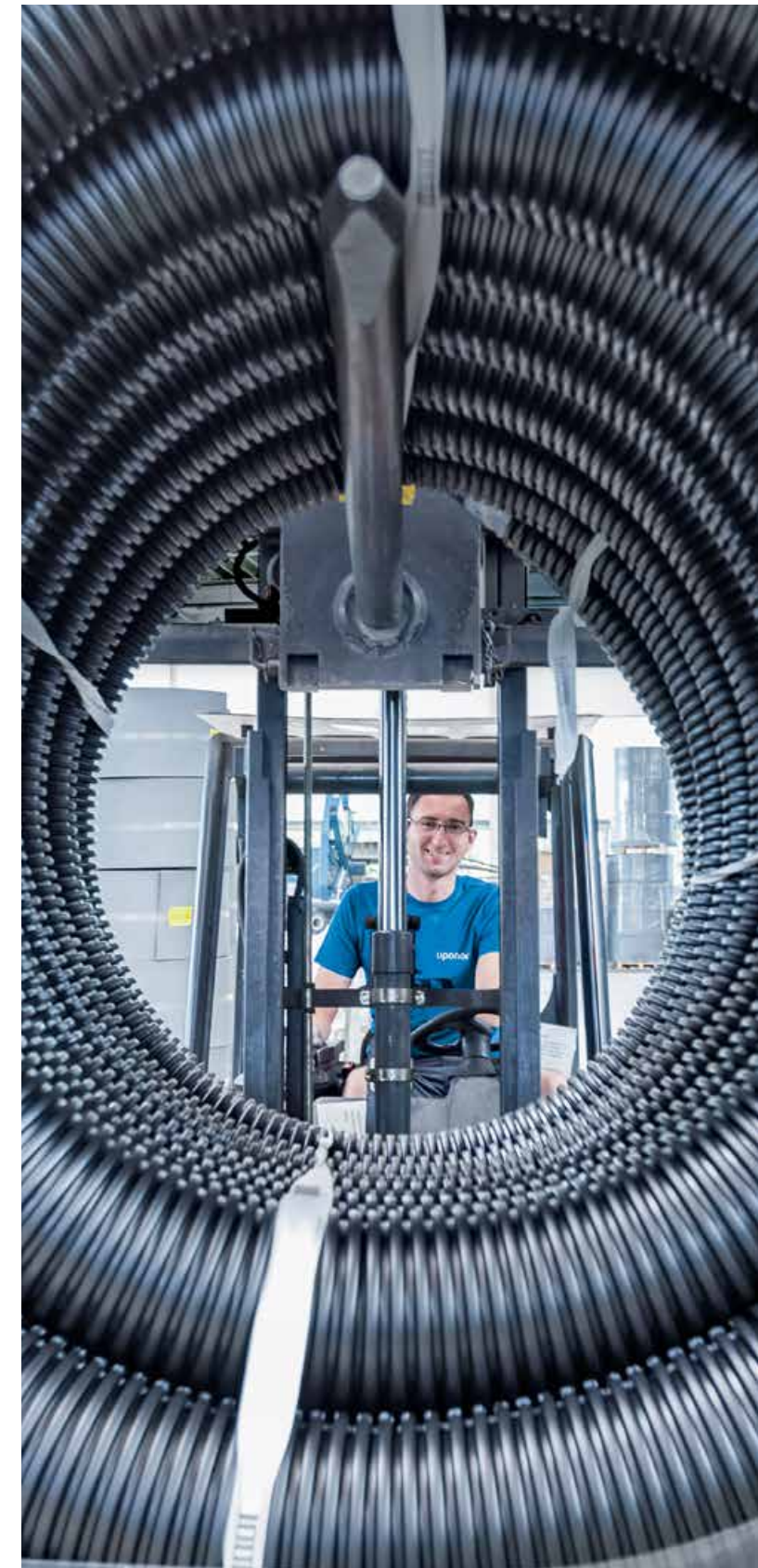
You can find full details of our product range and services, as well as technical documentation, specification guides, and further information at [www.uponor.com](http://www.uponor.com)

### VISIT

We welcome pre-arranged visits to our Customer Experience Centre in Watford. To arrange a visit, please email – [marketing.uk@uponor.com](mailto:marketing.uk@uponor.com)

### CHAT

You can contact us on **01923 381212** or email the team at [customersupport.uk@uponor.com](mailto:customersupport.uk@uponor.com)





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