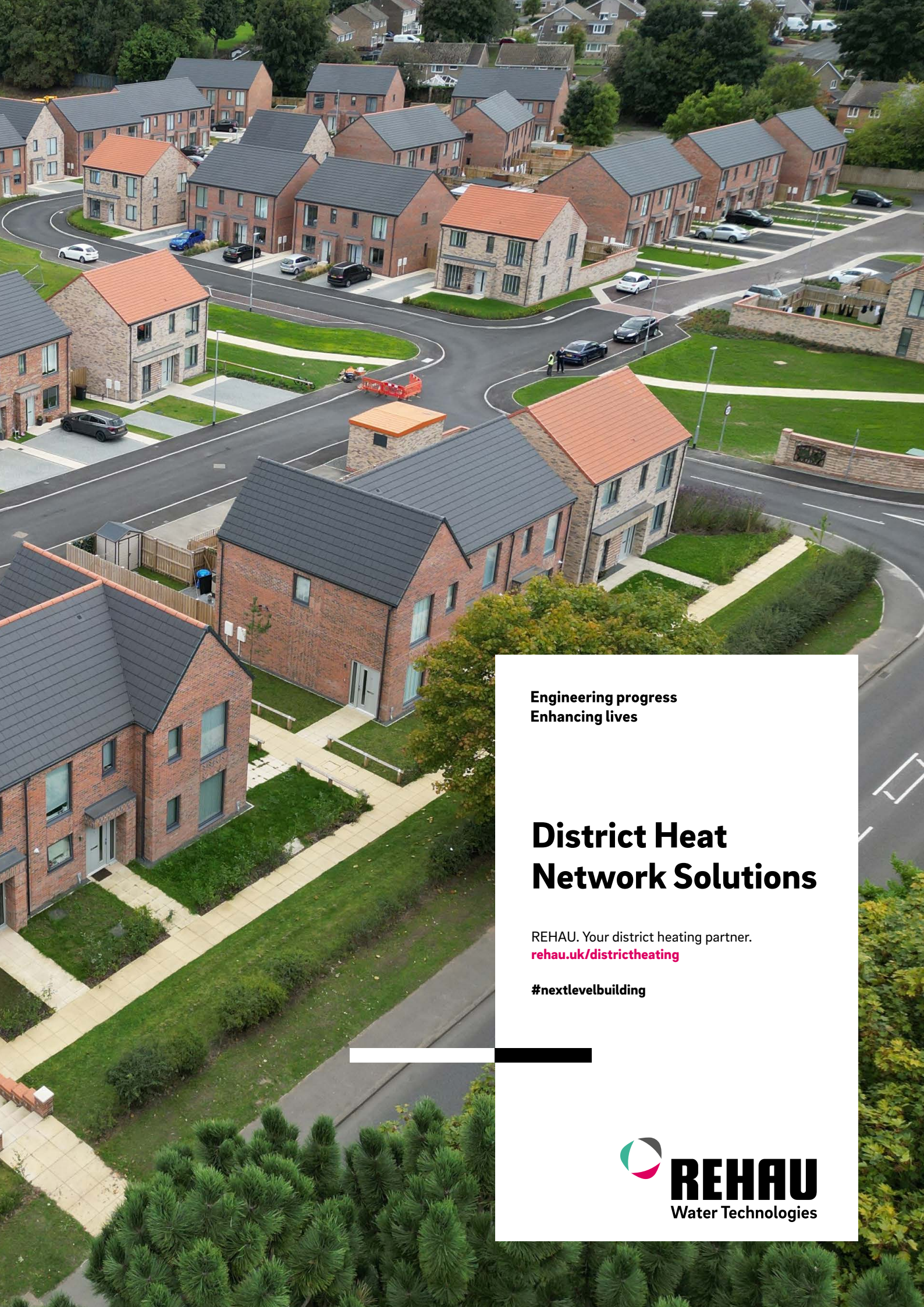


**Engineering progress**
**Enhancing lives**

# District Heat Network Solutions

REHAU. Your district heating partner.
**rehau.uk/districtheating**

**#nextlevelbuilding**

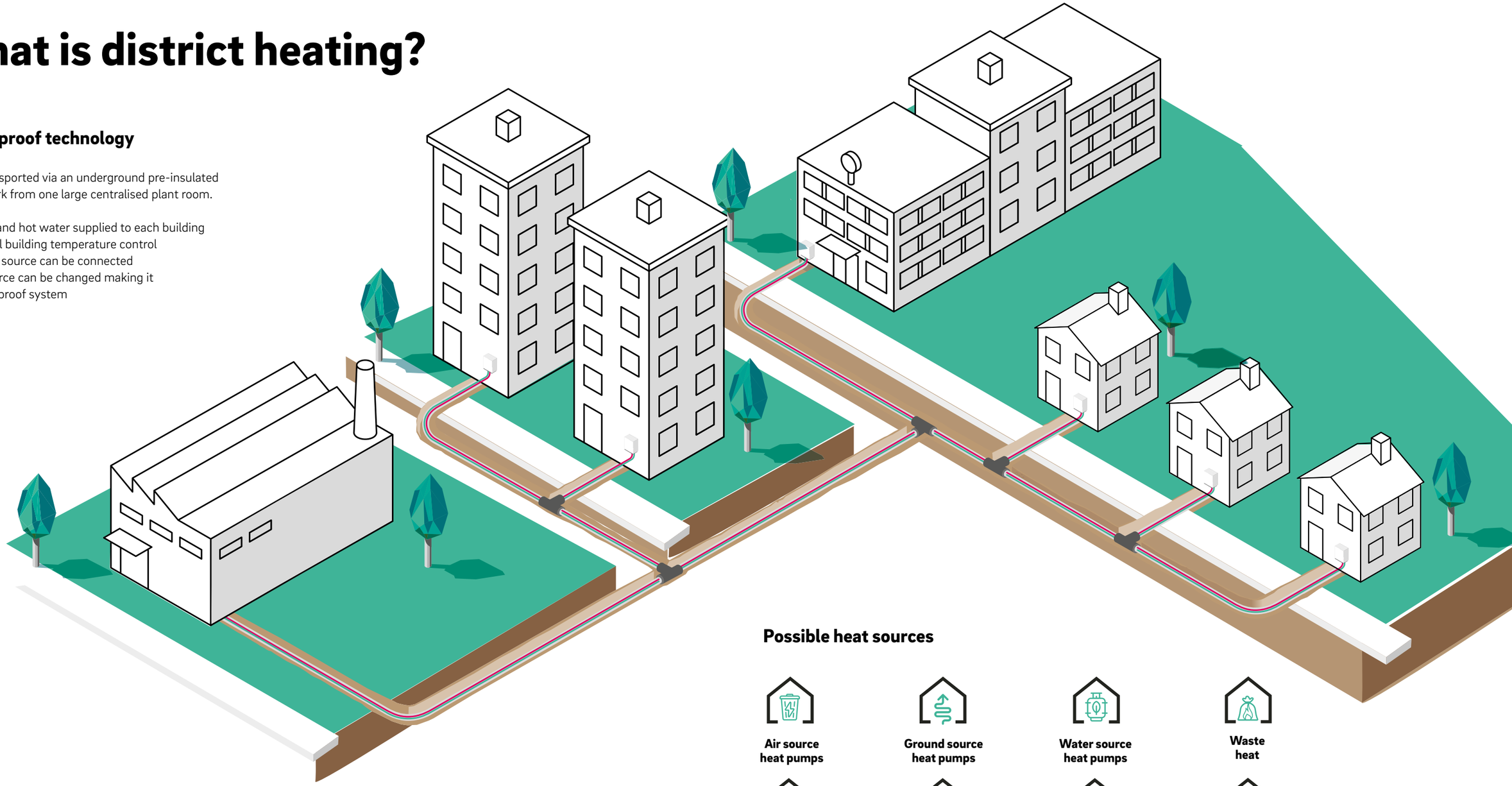
REHAU
Water Technologies

# What is district heating?

## Future-proof technology

Heat is transported via an underground pre-insulated pipe network from one large centralised plant room.

- Heating and hot water supplied to each building
- Individual building temperature control
- Any heat source can be connected
- Heat source can be changed making it a future-proof system



## Possible heat sources

- Air source heat pumps
- Ground source heat pumps
- Water source heat pumps
- Waste heat
- Biomass
- Anaerobic digestion
- Energy from waste
- Gas

# Service you can rely on

## UK based team

**Largest UK stock of district heating pipes**
- Full cutting service
- RAUVIPEX, RAUTHERMEX and RAUVITHERM
- Delivered direct to site within 5 days

**Proud to support UK production**
- Only UK manufacturer of PE-Xa district heating pipes
- Estimated 29% $CO_2$ reduction
- Production started in 2012

**UK sales & technical support**
- 3 regional sales offices across UK/ROI with a specialist district heating sales team
- On-site support available
- CIBSE-approved CPD presentations on heat networks







**Each CLIP-FLEX shroud is made using over 80% recycled materials**



# Design support

## What we offer our customers

REHAU's technical support team are trained CIBSE Heat Network consultants and can assist with the following using bespoke design software.

**Pipe sizing**
Effective use of pipe sizes can help reduce both capital costs and heat losses

**Optimisation of flow/return temperatures**
Achieving lower flow/return temperatures improves heat network efficiency

**Diversity**
Applying a more realistic diversity can reduce plant size and pipe sizes

**Pipe routing**
Having a more optimised route will reduce material and installation costs

**Heat loss calculations**
Heat loss calculations are essential to compare different pipes and network layouts

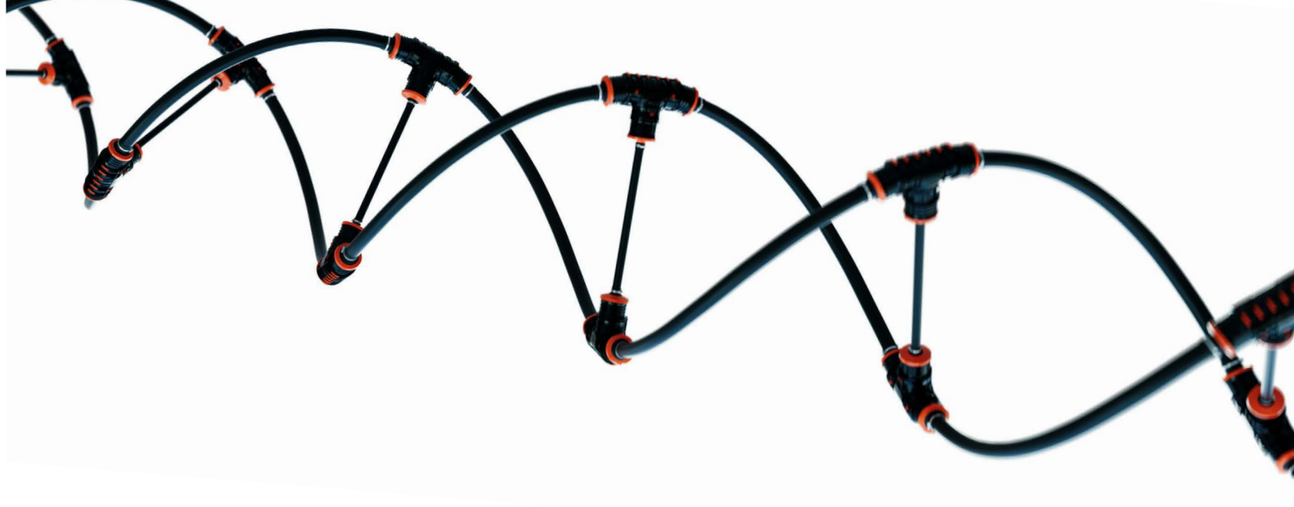
**BIM modelling**
BIM level 2 models are available for our district heating products

# Complete heat network system

## High performance pipes, shrouds and fittings

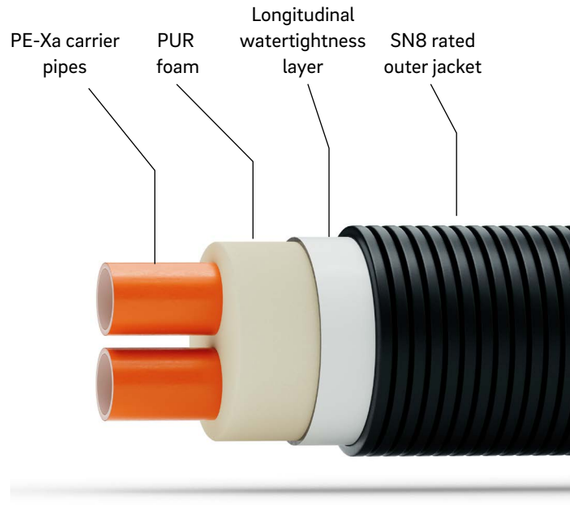
One fully integrated system, ready for tomorrow's heating needs



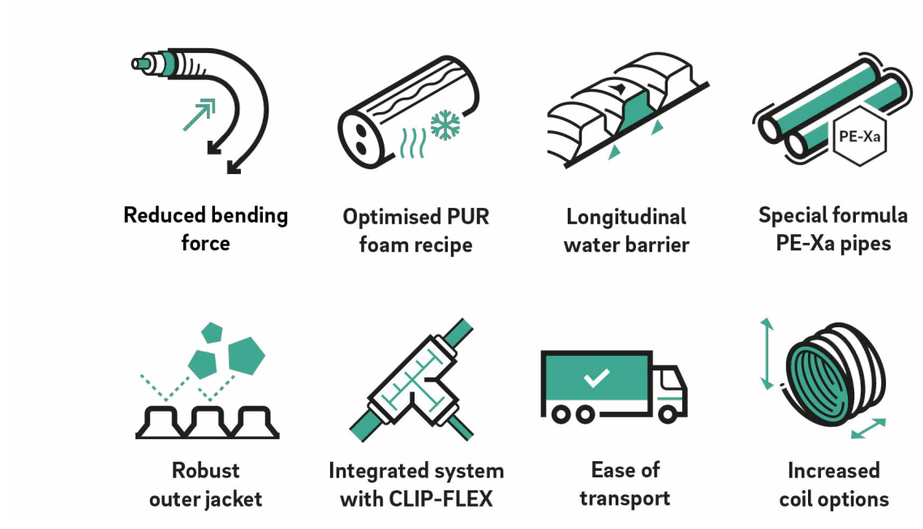



**RAUVIPEX**
**The all-round perfomer for heat networks**

- First pre-insulated PUR foam pipe range with SN8 ring stiffness
- First flexible PUR foam pipe to reach 'class A' watertightness - even when tested under stricter conditions
- Newly developed fine-poured PUR foam characterised by excellent insulation properties combined with outstanding flexibility
- Available up to 140 UNO and 75 DUO




**RAUVIPEX benefits**



**RAUTHERMEX**
**High thermal perfomance for large heat networks**

- Available up to 160 UNO and 75 DUO




**RAUVITHERM**
**Flexibility for small heat networks and remote heat pumps**

- Available up to 160 UNO and 63 DUO

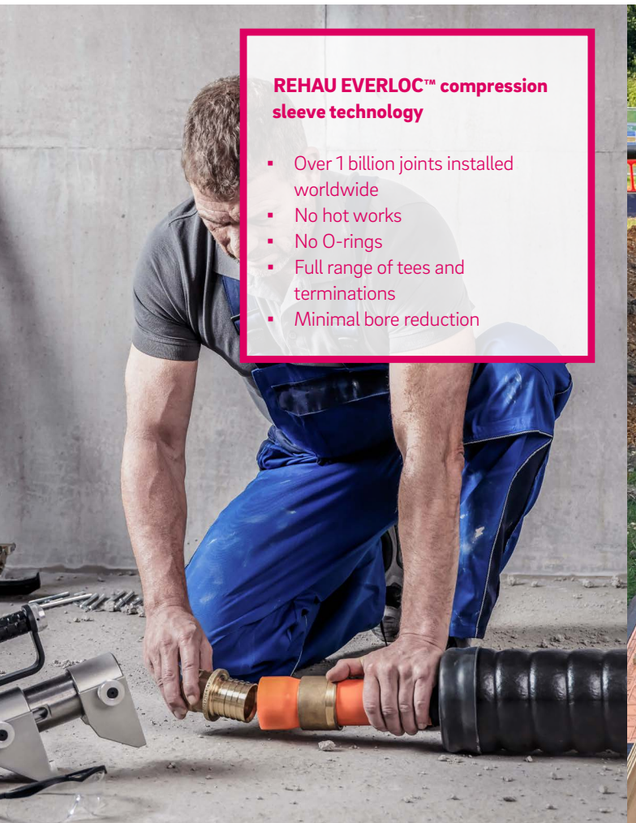




**CLIP-FLEX shroud**
**The universal shroud**

- Available as T/I/L configurations
- Two sizes: 90 to 150mm and 90 to 250mm
- Externally tested to 0.3 bar water pressure
- Allows angle deviations of up to 22.5°
- Each shroud is made from over 80% recycled material
- Designed for use with 2K-D foam cans, improving safety and handling on site

**CLIP-FLEX offers optimised packaging which reduces transportation space by up to 30%, whilst still offering up to 20% more space for fittings**



**REHAU EVERLOC™ compression sleeve technology**

- Over 1 billion joints installed worldwide
- No hot works
- No O-rings
- Full range of tees and terminations
- Minimal bore reduction



**FUSAPEX**

Electrofusion jointing system for REHAU's PE-Xa pipework, offering an alternative solution.





# PP-R Pipe

## Large diameter pipes for heat networks

To meet growing demands for larger heat networks, REHAU now offer pre-insulated PP-R pipes to allow a fully polymer heat network. These can transport over 16MW of heat at 70/40°C.

**6 reasons to use PP-R pipe**

- No expansion bends – this saves both installation and material costs
- Up to 37% lighter than steel and easier to handle
- Up to 19% lower pressure losses than steel
- Excellent corrosion resistance so no leak detection required
- Can be combined easily with REHAU's PE-Xa for fully polymer heat network
- Over 50 year lifespan at 70°C and 9.5 bar

**PP-R pipe SDR 11**

| Pipe diameter | Nominal diameter | Outer jacket diameter |
|---|---|---|
| 160 mm | DN 125 | 250 mm |
| 200 mm | DN 150 | 315 mm |
| 250 mm | DN 200 | 400 mm |
| 315 mm | DN 250 | 450 mm |
| 355 mm | DN 300 | 500 mm |





# Case Studies

## Across the UK







### 1 Portmeiron Village, North Wales

| | |
|---|---|
| Type | Cottages, hotel & other public buildings |
| Product | 3km of RAUTHERMEX |

### 4 Renaissance Golf Course, Scotland

| | |
|---|---|
| Type | Holiday properties - 11 bed, 8 bathroom |
| Product | RAUVIPEX |




### 2 Piperdam Luxury Resort, near Dundee

| | |
|---|---|
| Type | Holiday resort (70 lodges) |
| Product | RAUTHERMEX, RAUVITHERM pre-insulated pipe, Underfloor Heating |




### 5 Technology Park

| | |
|---|---|
| Type | Education hub |
| Product | PP-R pipe |




### 6 Hill Park Drive, Glasgow

| | |
|---|---|
| Type | Housing Association - 350+ homes |
| Product | RAUTHERMEX pre-insulated pipe |

### 3 Eleanor Street, Sheffield

| | |
|---|---|
| Type | Social housing (170 homes) |
| Product | 2km of RAUVITHERM |







### 7 Historic Military Base

| | |
|---|---|
| Type | Ministry of Defence |
| Product | RAUTHERMEX |

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**REHAULtd**

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