Engineering progress Enhancing lives

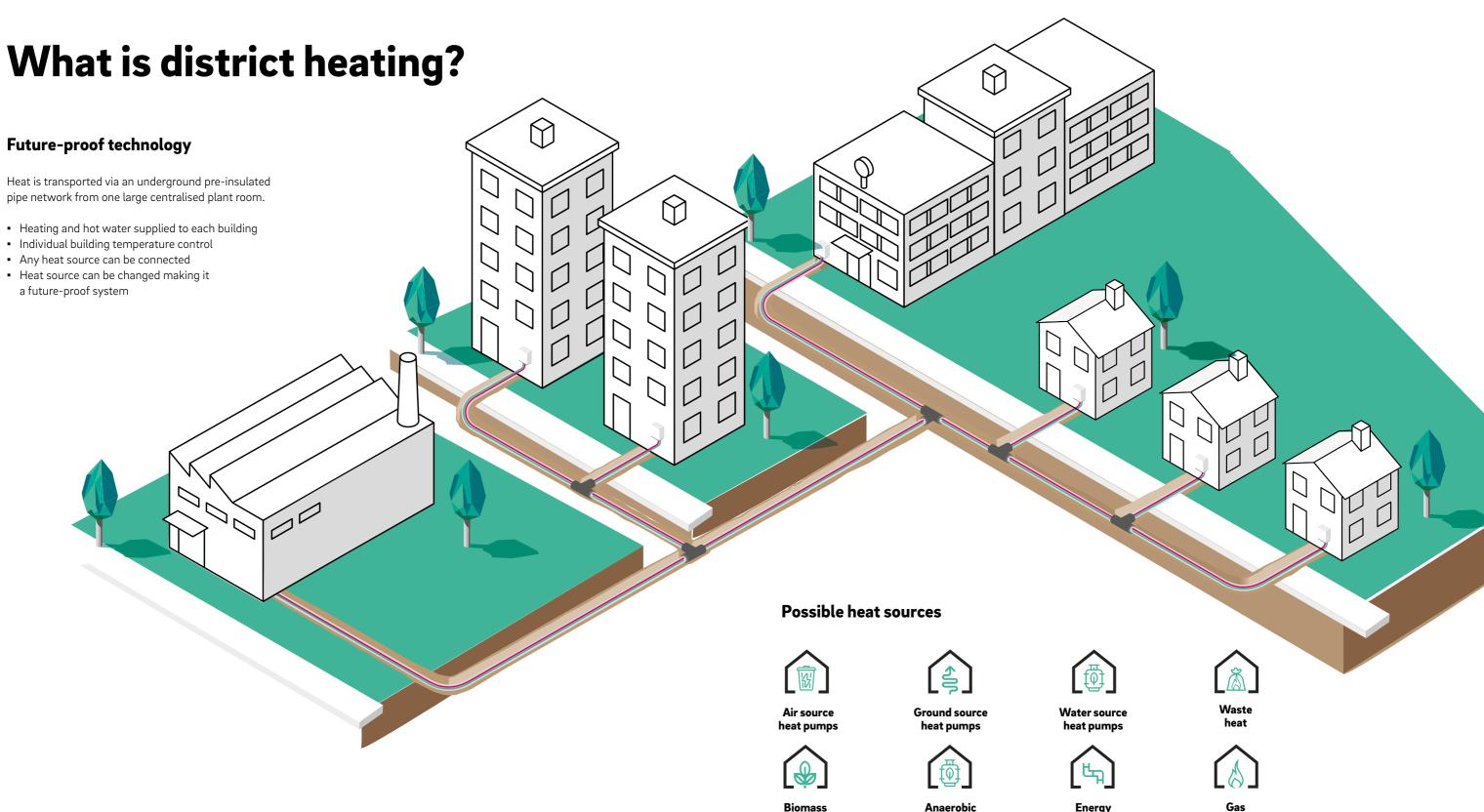
OT

## District Heat Network Solutions

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

#nextlevelbuilding





Energy from waste

digestion

3

# Service you can rely on

洸

Proud to support UK production

district heating pipes Estimated 29% CO<sub>2</sub> reduction

Production started in 2012

• Only UK manufacturer of PE-Xa

UK based team



4

#### Largest UK stock of district heating pipes

- Full cutting service
- RAUVIPEX, RAUTHERMEX and RAUVITHERM
- Delivered direct to site within 5 days

# <mark>Р</mark>Ш

#### 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









# **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



### 

### 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

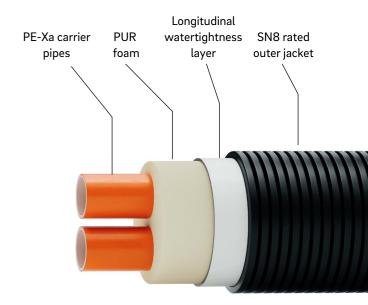


Reduced bending force Optimised PUR foam recipe





Robust outer jacket Integrated system with CLIP-FLEX





Longitudinal water barrier



Ease of transport



Special formula PE-Xa pipes



Increased coil options

#### 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

## 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









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



## **PP-R Pipe** Large diameter pipes for heat networks

To meet growing demands for larger heat networks, REHAU now offer preinsulated 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





# Internal pipework plumbing system

Proven alternative to copper and steel

## 1 RAUTITAN

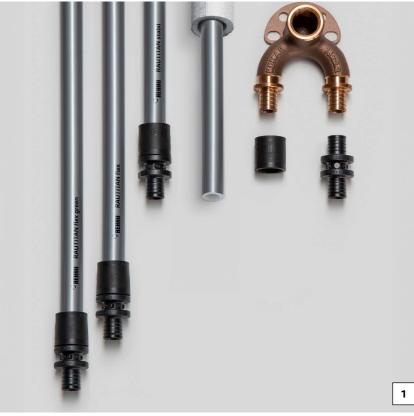
- RAUTITAN Flex (PE-Xa) up to 40mm and Stabil (aluminium multilayer) up to 63mm
- REHAU EVERLOC™ compression sleeve fitting has been installed over 1 billion times
- Independent certification of a 'cavity-free' joint
- Simple visual inspection

## 2 RAUTITAN flex green

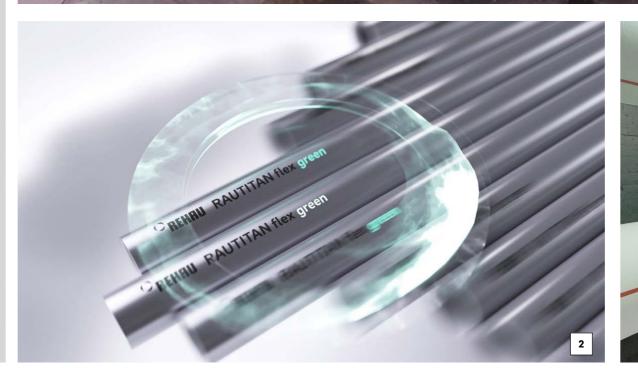
- Bio-based polymer
- Over 90% CO<sub>2</sub> savings in the manufacturing process\* 3

### PP-R fiber

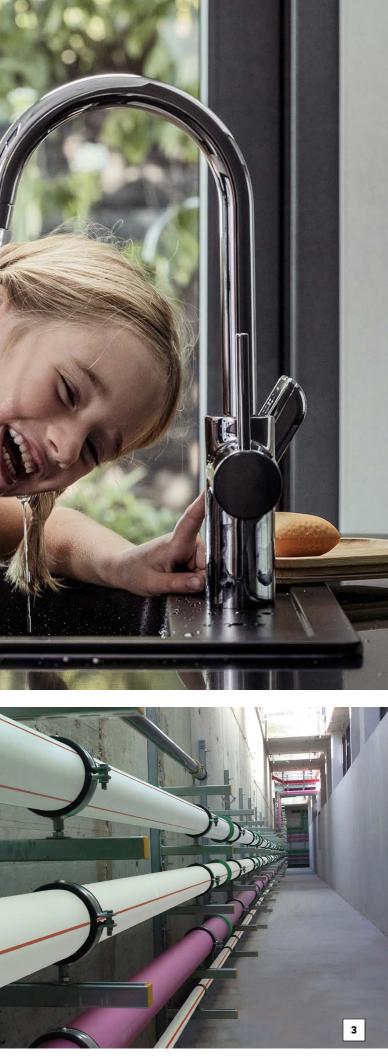
- PP-R fiber offering pipework up to 125mm
- Proven socket welded jointing system
- High corrosion resistance
- Pre-fabrication possible







\*based on life cycle assessment spanning stages A1 to A4 in accordance with EN 15804  $\,$ 





# **Case Studies**

## Across the UK

2

### **1** Portmeiron Village, North Wales

Туре	Cottages, hotel & other public buildings
Product	RAUTHERMEX



4 Renaissance Golf Course, Scotland		e Golf Course, Scotland
	Туре	Holiday properties
	Product	RAUVIPEX

### 5 Technology Park

Туре	Education hub
Product	PP-R pipe

6 Hill Park Drive, Glasgow	
Туре	Housing Association - 350+ homes
Product	RAUTHERMEX

### 2 Piperdam Luxury Resort, near Dundee

Туре	Holiday resort (70 lodges)	
Product	RAUTHERMEX, RAUVITHERM, Underfloor Heating	

### Eleanor Street, Sheffield

Туре	Social housing (170 homes)
Product	RAUVITHERM







### 7 Historic Military Base

уре	Ministry of Defence
Product	RAUTHERMEX

Y	in	0
Follow us @REHAUrenewables	Connect to us REHAU-UK-building solutions	Find us <b>REHAU.UK building solutions</b>



REHAULtd

This document is protected by copyright. All rights based on this are reserved. No part of this publication may be translated, reproduced or transmitted in any form or by any similar means, electronic or mechanical, photocopying, recording or otherwise, or stored in a data retrieval system.

© REHAU Ltd Hill Court, Walford, Ross-on-Wye, HR9 5QN