Engineering progress
Enhancing lives

Underfloor heating & cooling solutions

Supporting the transition to low carbon heating sources
www.rehau.uk/underfloorheating

REHAU | Building Solutions

Our service to you

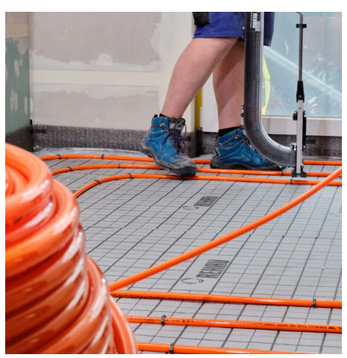
Underfloor is now widely accepted as the preferred heat distribution method for new build residential and commercial projects

This growth will only continue as we transition to low carbon heating solutions such as heat pumps and district heating which work more efficiently at lower flow temperatures.

We launched our first underfloor heating pipe in Germany in 1975 and have been offering this product range in the UK for over 35 years. This huge array of project experience across a range of sectors means REHAU is a trusted partner you can rely on.

How we assist our customers:

- Wide range of floor solutions
- Full CAD design in 5-10 days
- UK stock
- Experienced technical support team
- Special applications knowledge
- CIBSE-approved CPDs on underfloor heating and TABS



Dry systems

Diffusion plate
Designed for timber joist or batten floors such as sports halls. Faster reaction times than screeded systems.

Floating floor
Pre-routed polystyrene panel laminated with an aluminium foil. Fast response time but requires a load bearing subfloor.

Sprung floor
Ideal for sports halls, dance studios or leisure centres.

Screeded systems

RAUFIX clip rail
Fast installation over large areas is possible. The clip rails are secured in place using staples.

Tacker staples
Uses staples to attach the pipe to a grid pattern membrane. Ideal for large areas where liquid screed is used.

Industrial floor heating
Ideal for large warehouses and hangars which are typically harder to heat. Pipe installed directly in the concrete slab using a reinforcement mesh.

The pipe

Every meter of our RAUTHERM pipe carries 45 years' worth of experience in manufacturing cross-linked polyethylene pipes

It is a 6 bar rated PE-Xa pipe complete with an EVAL oxygen barrier and a lifespan of over 50 years (according to BS EN 15785).

REHAU offers the following pipe options:
- 16mm in 240m or 500m coils
- 20mm in 240m or 500m coils
- 12mm or 14mm pipe (on request)

If the pipe is accidentally damaged during installation or in operation, the pipe can easily be repaired using the REHAU Everloc™ compression sleeve technology. This allows a simple repair even in screed or concrete.

In 2023, REHAU reached the milestone of **1 billion** compression sleeves sold worldwide across our many product ranges.

NEA Smart 2.0

Designed for the growing demand in smart devices

REHAU launched NEA Smart 2.0 to give end users the ability to remotely control their system via PC, tablet or phone.

Benefits at a glance:

- Stylish LED dot-matrix design in black or white
- Can control heating, cooling and fan coils
- Ability to connect both wired and wireless units to the same base station
- Up to 60 zones as standard
- BMS integration possible for commercial projects
- Over-the-air software updates and remote diagnostic possible

Thermally Activated Building Structures (TABS)

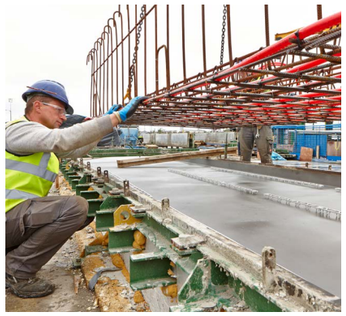
TABS utilises the large thermal mass of concrete building structures

It is a holistic approach to heating and cooling which is perfectly coupled with low energy heat sources.

TABS is proving itself as an efficient low energy cooling system on various BREEAM “Excellent“ and “Very Good“, and Passivhaus certified projects across the UK.

Benefits:

- Low investment and operating costs
- “Gentle cooling“ without draft effects
- Ideal combination with heat pumps
- Reduces demand for air conditioning
- Can be installed with a cross-laminated timber system to further reduce carbon



Chilled ceiling

Low energy cooling systems are proving increasingly popular as overheating of buildings is becoming more prevalent in the UK

REHAU offers a 10mm pipe based chilled ceiling panel which can offer outputs up to 60W/m². Chilled ceilings must be carefully designed early on in the project.

- High occupant comfort
- High cooling output
- Short reaction time
- Easy to combine with part-/ full air conditioning
- Can run in both heating & cooling modes

Snow & ice melting

The safety of residents, the public and vehicles is naturally a key priority for any developer

The benefit of using a snow and ice melting system, which can easily build up on areas used by pedestrians or vehicles and cause accidents, includes reducing the need for chemicals being laid on the ground and extracting heat from low carbon sources such as waste heat or ground source energy.

Applications include:

- Pavements / steps
- Driveways / car parks / ramps
- Stations
- Bridges
- Road testing facilities
- Landing pads / airports
- Petrol station forecourts

Pitch heating

One of the world's leading suppliers

Our success speaks for itself – over 400 stadiums and training pitches around the world use REHAU pitch heating systems to play sports all year round.

Advantages:

- Suitable for natural or artificial pitches
- Fast and easy to install
- Project specific pipe coil sizes means no wastage on site
- Pipe fixing using RAILFIX for equal heating of the pitch
- Using a reverse-return manifold system to reduce the heat losses

Case studies

Tate Modern
London: 24,000m of TABS

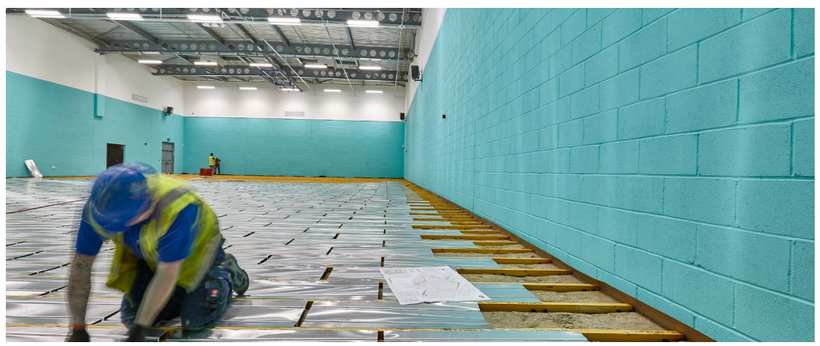
White Collar Factory
London: 150,000m of TABS

Chryston School
Scotland: 45,000m of staples & sprung floor

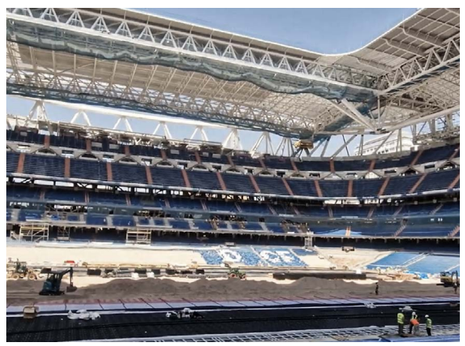
South Quay Plaza
London: 685 apartments

University of Leicester
7,000m of industrial floor heating / TABS

Chancery Lane
London. 5,000m² of chilled ceiling



Llandysul School
Wales. 11,000m² of staples & diffusion plates



Santiago Bearnabeu
Madrid: 28,000m of pitch heating

MTK stadium
Budapest: 28,000m of pitch heating

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