The UK's #1 heat pump pipe

## performpipe®

### Experience the next generation of heat pump pipes

The ultimate solution for air-to-water heat pumps, air conditioning, solar thermal systems, and other high-performance applications.









Space Saving I 本



Fire Resistant



Durable | ( L)



www.perform-pipe.co.uk

performpipe® introduces a new standard in pre-insulated pipework, purpose-built for air-to-water heat pumps and modern low-carbon systems.

Combining flexible stainless steel with advanced aerogel insulation, **performpipe®** is a slimmer, smarter, high-performance pre-insulated solution for modern systems, delivering outstanding thermal efficiency in a space-saving, easy-to-install format.

Whether you're routing pipework through walls, foundations or tight retrofit spaces, **performpipe®** is engineered to make installation simpler, performance stronger, and systems more efficient - for the long term.



#### Built for Real-World Demands

#### performpipe® is ideal for:

- Monoblock air-to-water heat pumps
- Split system heat pump connections
- Solar thermal systems
- ✓ HVAC pipework
- Underground duct runs and wall penetrations
- ✓ Retrofit upgrades in tight or awkward spaces

The compact profile, flexibility and weatherproof durability make performpipe® a complete, ready-to-fit solution across both residential and commercial projects.

Slimline Design

13mm insulation that delivers more thermal performance than 19mm+ alternatives

Direct Connection

No flex tails, adaptors or extra components needed

Fire Rated A2-s1,d0

High safety classification with minimal smoke and no flaming droplets

Built for Durability

UV, moisture & pest resistant for outdoor and underground installs

Flexible Core

Corrugated stainless steel pipe reduces the need for elbows and joints - ideal for tight installs

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Aerogel Insulated

Ultra-low heat transfer for maximum energy efficiency

#### The Problem

### Standard insulated pipework just isn't built for today's heat pump systems.

Most heat pump installations rely on outdated insulation materials like polyethylene or other standard pipe insulation. To deliver decent thermal performance, these insulations need to be thick and bulky - which makes installation harder, takes up more space, and often forces installers into awkward, inefficient routes.

Even then, heat loss through the pipework remains a major issue, forcing heat pumps to work harder and longer to maintain temperature. The result? Higher running costs, reduced system lifespan, and compromised efficiency - especially when pipes are run underground or through confined areas.

#### The Solution

## performpipe® overcomes those challenges, without compromise.

By combining ultra-thin aerogel insulation with a flexible stainless steel core **performpipe®** delivers a compact, pre-insulated solution that's easier to install and significantly more efficient.

Using the world's best known material for insulation value, with the lowest conductivity - the *ultra-thin aerogel insulation* helps reduce heat-loss and improve overall performance in heat pumps and low-carbon systems.

And unlike many alternatives, **performpipe®** comes pre-insulated as standard. So there's no need for extra layers, maintenance coatings, or flex-tail adaptors. Just unbox, fit, and go.

#### Key Benefits



#### **Energy Efficient**

Built around advanced aerogel insulation with a thermal conductivity of just 0.0175 W/m·K, performpipe® dramatically reduces heat loss - helping heat pumps run more efficiently, use less energy, and cut operational costs.



#### Compact

At just 58.8mm overall diameter (including insulation + sheathing), **performpipe®** delivers premium thermal performance in a much slimmer form. That means easier installs through walls, in ducts, or tight service zones.



#### Fire Rated

performpipe® uses Aerogel GT insulation, classified A2-s1,d0 under EN 13501-1:2019. With a maximum application temperature of 675°C, and very limited combustability, it's safe to use everywhere fire performance matters.



The corrugated stainless steel pipe bends easily and holds its shape, making it ideal for awkward spaces. It reduces the need for elbows or extra fittings and connects directly to heat pumps without requiring flexible tails.



#### Maintenance Free

Encased in a tough, UV-resistant PVC outer jacket, **performpipe®** is fully sealed and built to withstand the elements. There's no need for ongoing coatings, insulation tape, or annual checks - it's a true fit-and-forget solution.



Hydrophobic insulation means **performpipe®** is waterproof - designed to withstand moisture, UV exposure, extreme weather, and installation underground. Proven to last for 60 years, this insulation is built for long-term performance.

#### The <u>Aerogel</u> Advantage

At the heart of **performpipe**® is AerogelGT - a material made up of 99.8% air, with a thermal conductivity of just 0.0175 W/m·K. That's what makes **performpipe**® so compact, yet so effective.

It delivers high thermal performance in just 13mm of insulation, where other materials need up to 27mm to compete. Add in fire safety, moisture resistance, and durability and you've got one serious upgrade to traditional pipe insulation.

- Ultra-low thermal conductivity
- Fire Safety
  Performance
- Slimmer profile, same protection
- Built to last

# We're setting the benchmark for piping performance

Bold claims, backed by big results.

To validate performance claims, we ran a full-year simulation comparing **performpipe®** to other commonly used pipe insulation materials tested in real-world conditions\*.

#### How performpipe® performed

Energy Use Up to 30% less than alternatives\*

Heat Pump Run Time Up to 144 hours fewer per year\*

Insulation Thickness Only 13mm vs 21.5-27mm of others\*

U-value 0.952 W/m<sup>2</sup>K in a 57.8mm pipe diameter

- Lower energy usage
- ✓ Fewer running hours
- ✓ Higher efficiency

Sound good?

#### \*Test Parameters

Test Duration12-month dynamic simulationEnvironmentUK climate (Edinburgh data)System TypeAir-source heat pump, 2kW

Temperature Range  $55^{\circ}\text{C} \pm 5^{\circ}\text{C}$ 

Pipe Configuration 5m outdoor + 5m indoor

Water Usage Family of three

Materials Polyethylene, mineral wool, cellular glass



Every part of performpipe® is engineered to do its job, so you can just focus on yours.

- Outer Sheathing UV and weather resistant PVC Fully sealed, fit for external and underground use
- Insulation 13mm AerogelGT Minimal thickness, maximum performance
- Core Flexible corrugated •

stainless steel Bends easily without elbows or joints

#### **Product Options**

Ready for simpler installs and better performance? Take a look at our range.

Thermal Conductivity ( $\lambda$ ) Fire Classification Max Application Temperature Installation Types Connection Type

0.0175 W/m·K (Aerogel GT) A2-s1,d0 (EN 13501-1:2019) Up to 675°C (EN 14706:2013) Above ground, underground, through-wall Direct-to-heat-pump - no flex tails needed





#### Single performpipe®

One fully insulated stainless steel pipe - ideal for custom routing or when flow and return need to be separated.



Twin performpipe®

A flow and return pair, perfect for faster, neater installs when both pipes follow the same route.

- Available in DN25 / DN32
- Supplied in 5m, 10m, 15m, and 20m lengths
- Suitable for indoor and outdoor
- Can connect directly onto the back of a heat pump without the need for a flex tail
- Pre-insulated and ready to install





Male Connector



Female Connector Coupler





Corrugated Pipe with Spigot



Wall Brackets



performpipe<sup>®</sup>

www.perform-pipe.co.uk





info@gti-direct.com

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