

Cavity Wall & Loft Insulation



What is a cavity wall?

If your home was built after 1890 (approx), the chances are that its external walls are made of two skins of brick with a gap between them.

The gap between the two skins of brick (inner and outer skin) is called a cavity.

Properties that have this cavity in between the skins of brick are said to have a cavity wall.



What is a cavity wall?



What is the purpose of the cavity?

The skins are commonly masonry such as brick or concrete block. Masonry is an absorbent material, and therefore will slowly draw rainwater or even humidity into the wall. The cavity serves as a way to drain this water back out through weep holes at the base of the wall system or above windows.



What is the purpose of the cavity?

It is NOT to allow air to flow – there is plenty of air both inside and outside the property!

It does not provide insulation on its own.

It is not there to allow the property to breathe!



What is the purpose of the cavity?

Its purpose was to prevent the transfer of moisture and/or water from outside the property to the inside.

Water or damp ingress from the outside/external elements cannot transfer across the gap.

It prevents water/damp transfer ONLY.



Different cavity depths

The depth of the cavity in properties varies according to their age and property type.

In general cavity depths are as follows:

30 – 39mm	Micro Cavity
40 – 49mm	Narrow Cavity (HTT)
50 – 85mm	Ordinary Cavity



Why have Cavity Wall Insulation (CWI)?

Did you know that around a third of all the heat lost in an uninsulated home goes through the walls?
(Energy Saving Trust)

Heat will always flow from a warm area to a cold one. In winter, the colder it is outside, the faster heat from your home will escape into the surrounding air.



Why have Cavity Wall Insulation (CWI)?

Cavity wall insulation keeps the warmth in to save energy. It can also help reduce condensation inside the house if this is a problem on your external walls.

It will also improve the energy efficiency rating of your home (shown on the EPC).

You will burn less gas and therefore create less CO₂ per year. This reduces your carbon footprint and is better for the environment.



How much could you save?

Measure	Annual Saving	Install Cost	Pay back time	CO₂ Saving per Year
CWI	Up to £140	£450 or £0 (<i>if ECO funded</i>)	Less than 4 years	Around 560kg



How is the insulation installed?

To insulate the cavity walls, the installer drills small holes around 22mm in size at intervals of around 1m in the outside wall of your home. With specially designed equipment, they then blow insulation into the cavity. Once all the insulation is in, the installer fills the holes in the brickwork.



What is the insulation made of?

Cavity wall insulation can be made out of three types of materials:

- mineral wool
- beads or granules
- foamed insulants.

All three are manufactured according to British standards. They have been approved and certified by the British Board of Agrément and are installed according to strict guidance laid out in the associated BBA Certificates.



Polypearl Cavity Wall Insulation

- Now widely used as an alternative to mineral wool for narrow cavities (HTT).
- From the BBA Certificate:
“1.1 Polypearl Plus and Polypearl Platinum Cavity Wall Insulation are expanded polystyrene bead materials (white and grey respectively), for use as an insulation within the cavity of masonry brick and block cavity walls, supplied with or without a binding agent. The binding agent is used to adhere the beads together and provide long-term stability to the insulation.”



Polyppearl Cavity Wall Insulation

Key Factors from the BBA Certificate are:



Liquid water penetration — the products will resist the transfer of water across the cavity.

Condensation — will limit the risk of condensation provided the conditions stated are met.

Behaviour in relation to fire — use of the products does not prejudice the fire resistance properties of the wall.

Durability — the products are durable, rot-proof, water resistant and sufficiently stable to remain effective as an insulation for the life of the building.



The Cavity Insulation Guarantee Agency (CIGA)

The Cavity Insulation Guarantee Agency provides independent [25 year guarantees](#) for Cavity Wall Insulation fitted by registered installers in the UK and Channel islands. The standard Guarantee covers traditionally constructed residential property, although a CIGA Commercial Guarantee is also available to owners of qualifying non residential property of up to 1,000 m² in wall area.



Loft Insulation

Heat rises, and in an uninsulated home a quarter of your heat is lost through the roof. *(Energy Saving Trust)*

Insulating your loft, attic or flat roof is a simple and effective way to save that waste and reduce your heating bills – you can even do it yourself.



How much could you save?

	Loft Insulation (0 to 270mm)	Loft Insulation (100 to 270mm)
Saving per year	Up to £180	£25
Installation cost	Approx £300	Up to £300
Time to pay for itself	Up to 2 years	Up to 12 years
CO₂ saving per year	730kg	110kg



Types of Loft Insulation

The two main types of loft insulation are:

- **Matting** - sometimes called blanket or quilt insulation - is sold as flexible rolls of different thicknesses. The most common type is mineral wool, made from glass or rock fibre.
- **Blown insulation** is made of fire-resistant cellulose fibre, made from recycled newspapers, or mineral wool. It should only be installed by professionals, who will use specialist equipment to blow the loose material into a specific, sectioned-off area to the required depth.



Any questions?

