

Vario[®] XtraSafe

Airtightness and moisture management system.



ISOVER
SAINT-GOBAIN

Airtightness

Nothing protects the homes you create like **Vario® XtraSafe**

Vario® XtraSafe is the next generation of 'smart' vapour barrier, delivering airtightness alongside active moisture management. Helping you protect the building fabric and meet the latest Building Regulations.*



Features and benefits

Vario® XtraSafe is one of the most advanced airtightness systems available. By helping to control ventilation and putting a stop to unwanted draughts, Vario® XtraSafe provides a high level of thermal comfort.

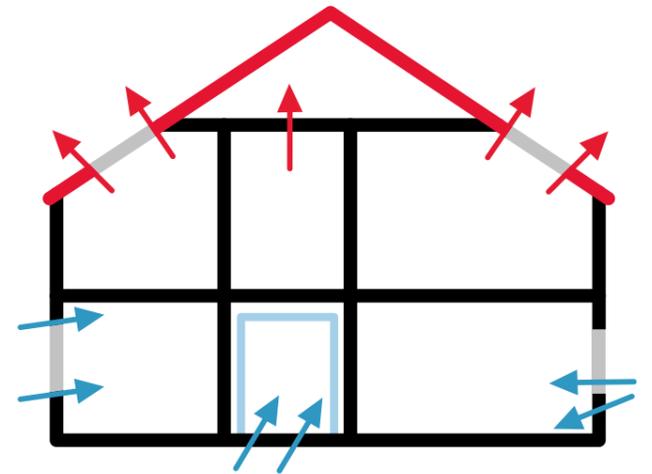
- A full building airtightness solution, which can easily exceed Part L regulations.
- Airtightness gains can vastly improve a building's overall thermal performance and EPC rating.
- Improving airtightness dramatically reduces draughts and improves occupant comfort.
- The Vario® XtraSafe system contains everything necessary for maximum airtightness gains.

*Part L 1 A of the Building Regulations (England & Wales) and Section 6 (Scotland)

The Importance of Airtightness

What is airtightness?

Airtightness refers to the amount of air that can escape or enter a building uncontrolled through unwanted gaps, cracks, holes and draughts. It can have a huge effect on a property's thermal performance and also on occupant comfort as the warm air leaks out and cold air blows in.



Vario® XtraSafe and airtightness

Vario® XtraSafe is an airtightness membrane which, when properly installed throughout the building envelope, will prevent unintended air exchanges through the building fabric, keeping the warm air in, and the cold air out.



Part L regulations

Part L 1A of the building regulations sets out a minimum standard for airtightness for new dwellings (to be tested via a "Blower Door Test") and requires properties to include airtightness measures to meet or exceed $10\text{m}^3/(\text{m}^2\cdot\text{hr})@50\text{Pa}$.*



* $10\text{m}^3/(\text{m}^2\cdot\text{hr})@50\text{Pa}$ means that when the pressure difference is increased to 50 pascal, for each square metre of the building envelope, a maximum of 10m^3 of air per hour can pass through. This is also known as "10 air exchanges per hour"

Active Moisture Management

Vario® XtraSafe provides the most complete building moisture management system possible. By adapting to the humidity of the surroundings, Vario® XtraSafe prevents moisture accumulation within the building structure.

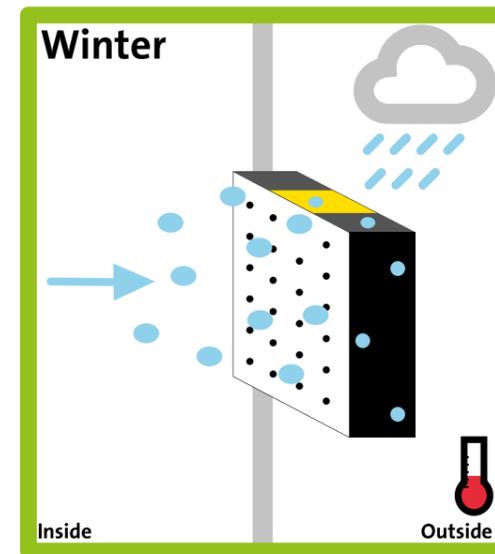


Moisture management

Developed by Isover, Vario® XtraSafe is one of the most advanced airtightness and moisture management systems on the market today.

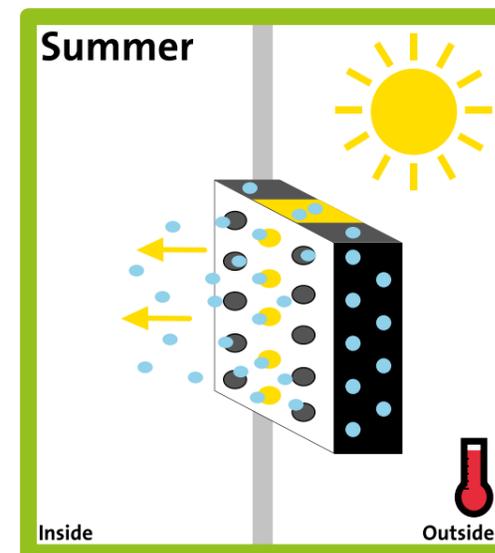
- The only complete 'smart' moisture management system available.
- Highly variable Sd value for the best possible moisture control option, whatever the weather.
- Fitting Vario® XtraSafe helps to prevent mould growth within the building structure, which is highly beneficial for occupant health.
- Appropriate moisture control extends the life of the building fabric.

The Need for Moisture Management



What is moisture management?

Moisture management is the ability to control moisture accumulation in the structure of a building, both through preventing water vapour getting in there in the first place, and by giving damp materials the best opportunity to dry out. Moisture accumulation leads to long term damage to the building structure, and mould growth that can have adverse effects on occupant health.



Vario® XtraSafe and moisture management

Vario® XtraSafe is what is known as a 'smart' vapour barrier. It has the ability to adapt to external conditions to provide the best possible protection for the structure. When it's cold and damp outside, and warm and moist inside (in winter, for example) relative humidity in the wall itself is low, so Vario's® pores close up and keep the water vapour from daily living out.

When it's warmer outside (in the summer), relative humidity in the wall becomes higher and Vario® opens its pores to allow accumulated water vapour to flow out, so that the structure can dry, preventing timbers from rotting, mould from growing and damage to the building fabric from occurring.

Achieving an Airtight Installation

The importance of correct installation

Any airtightness layer is only as good as its installation. A poorly installed system with gaps, damaged areas or sections that are not sealed properly will not be airtight and will therefore not meet regulations or provide any of the benefits that airtightness offers. To see the latest installation videos for Vario® and special detailing around penetrations such as windows, doors and pipes visit www.isover.co.uk/vario



Vario® ease of installation

Vario® is a system which is designed to be as quick and simple to install as possible. The system consists of all the components needed for installation and the revolutionary XtraFix attachment system, coupled with the pre-printed cutting guides, makes it effortless to install and easy to correct any mistakes, to ensure the best results possible.



Blower door test

The Blower Door test is the industry standard measure of airtightness. The main external door is replaced with an airtight “door” incorporating a large compressor. All intentional points of ventilation are sealed, and the internal/external pressure difference is increased to 50Pa. During the test, the amount of air exchanged between the inside and outside of the property is measured, and any areas where there is unwanted airflow through the structure can be identified.



Vario® System Components



Vario® XtraSafe

Reinforced, laminated water vapour retardant with active moisture management for sealing all construction components (floors, walls, roof) in both lightweight and solid constructions. Moisture variable Sd value of 0.3m - 25m. Includes pre-printed installation markings and a fleece backing for easy installation with XtraFix Tape.

Roll = 40m x 1.5m

Order no. 5200758985

Vario® XtraFix

Self-adhesive “hook” tape, for use in attaching the fleece backed Vario® XtraSafe to all types of surface

Roll = 25m x 10mm (20 per box)

Order no. 5200764485

Vario® MultiTape SL

Single-sided, flexible adhesive tape with a split release strip for producing durable airtight junction seals between overlapping sections of Vario® XtraSafe, and joins with walls, roof, windows, pipes and other penetrations. The split release strip makes it easy to install in corners and difficult-to-access areas.

Roll = 25m x 60mm (10 per box)

Order no. 5200013892

Vario® DS Sealant

Durable elastic sealant in a handy cartridge. Used for producing airtight joints and junctions between Vario® XtraSafe membranes and floors, ceilings and walls, and for fixing overlapping seams in membranes.

310ml Cartridge (12 per box)

Order No. 5200013894



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