

Rockwool EnergySaver

Blown cavity wall insulation for existing and new constructions

Rockwool EnergySaver cavity wall insulation is an entirely dry system which uses granulated Rockwool blown into an external wall cavity to a predetermined density. No glues or catalysts are involved in the installation procedure.

The system may be used to improve the thermal insulation of both new and existing masonry cavity walls as well as certain types of non-traditional structures.

Rockwool EnergySaver blown wool does not create a bridge or capillary path within the cavity that might allow rainwater to penetrate to the inner leaf.

Advantages

- Ensures a complete fill without settlement
- Water repellent – will not allow water to migrate across cavity
- Vapour permeable – allows construction to breathe, reducing condensation risk
- British Board of Agrément certification for use up to 25 m height
- Cost effective solution for new build and refurbishment



Installation of Rockwool EnergySaver into traditional brick/block cavity wall

An entirely dry system, certified for use in all exposure zones

Method of use

Rockwool EnergySaver Cavity Wall Insulation is normally installed in existing properties by drilling and filling via the outer leaf of the cavity wall. In new buildings, installation may be carried out either from outside, or through the inner leaf of the cavity wall, prior to plastering.

Guarantee

In existing domestic properties, EnergySaver, installed by Rockwool Approved Installers in accordance with the specifications and conditions laid down by Rockwool Limited, carries a guarantee issued by CIGA, the Cavity Insulation Guarantee Agency.

Standards

EnergySaver has been examined by the British Board of Agrément and certified for use in all exposure zones. The assessment is covered by Agrément Certificate No. 89/2316.

Building Regulations

C4 A properly constructed masonry cavity wall insulated with Energysaver will fully meet the requirements of Regulation C4, 'Resistance to weather and ground moisture'.

D1 EnergySaver, being non-toxic, is not limited by the requirements of Regulation D1, 'Cavity insulation'.

L The product is capable of meeting or exceeding the U value requirements for walls to dwellings and will contribute to meeting the overall maximum rate of heat loss requirements for other classes of buildings as defined in Regulation L, 2002 Edition 'Conservation of fuel and power'.

B3 Because EnergySaver is non-combustible to BS 476: Part 4: 1970 (1984) and A1 when tested to EN 13501-1 classification using test data from reaction to fire test, no additional fire stopping is required under Regulation B3(3), 'Internal fire spread (structure)'.

Building Notices

In the case of existing buildings where it is intended to install EnergySaver, a building notice and accompanying statement must be given to the Local Authority in accordance with the requirements of their Regulations 12 (3)(a), (b) and (c), not less than 48 hours before work commences. Notification of completion of work must be given not more than 7 days thereafter in accordance with Regulation 14 (5)(b).

Use in tall buildings

Agrément Certificate 89/2316 covers the use of EnergySaver in buildings up to 12 m in height. The use of the product in buildings from 12 m to 25 m in height would be subject to a detailed project assessment and on site inspection by Rockwool Limited.

Performance and properties

Water resistance

EnergySaver repels water due to the presence of water repellent additives.

Should water penetrate the outer leaf of the cavity wall, it will drain down between the wall surface and the injected filling. The Rockwool EnergySaver system is designed so that water will not cross the cavity by capillary action. In situations where Rockwool material is present both above and below the ground floor damp-proof course, it will not transmit ground water by capillary action.

Condensation control

When calculating vapour diffusion through a structure, the vapour resistance of Rockwool is negligible and is usually considered to be the same as for air.

Moisture condensing from the air within Rockwool material is less than 0.02% by volume at 95% relative humidity.

EnergySaver therefore reduces the risk of condensation and allows natural drying out of the wall construction due to its ability to 'breathe'.

Where condensation and black-spot mould have occurred on inner walls of occupied buildings, EnergySaver will assist in the reduction of this problem, provided that heating and ventilation are adequate and the situation is not as a result of a cold bridge.

'U' values

Insulation thicknesses relating to typical wall constructions are provided in the separate U Value section of the Rockwool Red Book.

Biological

EnergySaver is completely rot proof and does not encourage the growth of fungi, moulds or bacteria.

Compatibility

EnergySaver will not react with wire, plastic or metal wall ties, brickwork or masonry, nor will it cause loss of plasticiser from PVC cables and pipes.

Durability

EnergySaver has been proved in service for over 40 years in all types of climate and degrees of exposure. It will give effective protection for the lifetime of the building.

Environment

No CFCs, HFC's or HCFCs are used in the manufacture of Rockwool materials.

Installation details and notes on the system

Melting point

The melting point of Rockwool is above 1000°C. It is therefore ideal in circumstances where protection against spread of fire is required in addition to insulation (see 'Non-traditional structures' below).

Other applications

Non traditional structures

EnergySaver can be used to insulate certain types of non-traditional structures. Timber framed buildings should not be filled. However, particular, some system-built structures which have combustible materials within, or as part of, the external wall cavity, can achieve a greatly reduced spread of fire risk by the process of filling the wall structure with non-combustible blown Rockwool. At the same time the improvement in U value can be as much as 10 times the uninsulated value.

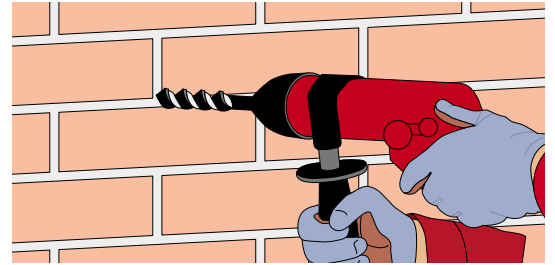
Rockwool will undertake an inspection of the building to be insulated, and if suitable, the work will be undertaken by a Rockwool Approved Installer using Rockwool EnergySaver cavity wall insulation. The specification is the same as that used for normal masonry cavity wall insulation, using machinery and equipment approved by Rockwool Limited. In some cases individual specification details may need to be modified.

The Approved Installer carries out work on non-traditional properties as if all the relevant conditions of Agrément Board certification were to apply.

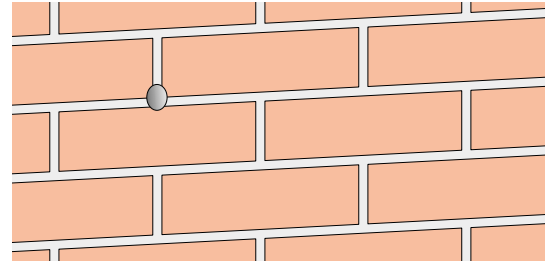
Note: Non-traditional structures are not included in the CIGA scheme.

Fire stopping

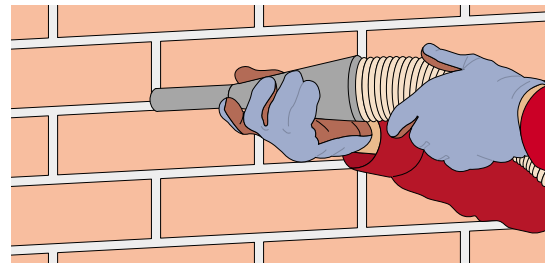
Where improvement, refurbishment or envelopment schemes require the provision of fire stops within existing external wall cavities, as well as improvement of U values, EnergySaver can be installed to achieve both requirements, with the minimum of disturbance to the building fabric.



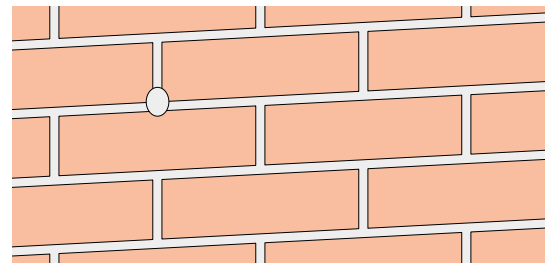
Drilling hole



Neat hole ready to receive fill



Blown wool being injected



Hole sealed with mortar

Method of installation

BBA Certificate No. 89/2316 relates to the latest design of Rockwool blowing machinery and equipment used with the 18 mm or 25 mm small hole system. The blown wool is installed through 18 mm or 25 mm holes drilled at 1.5 m centres in a staggered 'W' pattern. In the case of facing brick or block walls these holes are normally located at mortar joint positions. Additional filling holes may be required, eg at window sills, around airbricks, at the top of walls or under gables to ensure the complete filling of the cavity. This will also apply in buildings with independently sealed cavities, eg separated by ring beams. Making good with mortar usually takes place as filling proceeds.

Installation details and notes on the system

Installation

Rockwool EnergySaver cavity wall insulation is carried out by installers trained by Rockwool Limited. For names and addresses of local Approved Installers please apply to Rockwool's Marketing Services Department.

Installation responsibilities

Filling to the correct density within the cavity is achieved with blowing machinery which is tested and approved both by Rockwool Ltd. and the British Board of Agrément. The Approved Installer provides all necessary hoses, drilling equipment and materials for re-mortaring after installation of the blown wool.

The positions of drilled holes are based on patterns designed by Rockwool Limited as defined in the Agrément Certificate applicable to the system. These patterns ensure that the cavity to be insulated is completely filled.

Site surveys

An inspection survey is carried out by the Rockwool Approved Installer to determine the suitability of the building for EnergySaver, using the following criteria:

- 1 Walls must be in a good state of repair and free from evidence of frost damage.
- 2 Mortar joints must not show evidence of more than hairline cracking.
- 3 Where practicable, all open cavity heads should be sealed prior to filling. It is essential that airbricks and vents are checked in advance to prevent them being blocked during installation. Where necessary, trunking should be installed to preserve the ventilation function.
- 4 Partial filling of cavity walls is only permitted when treating semi-detached or terraced properties. A vertical cavity barrier must be installed in such cases.
- 5 In new buildings, walls should be designed and built to the relevant section(s) of BS 5628: Part 3: 2001 or BS 5390: 1976 (1984).
- 6 In existing buildings where open-flued or chimney arrangements exist, installation of heating appliances should be checked before and after EnergySaver installation to ensure that they comply with BS 5440: Part 2: 2000, 'Ventilation of new or replacement gas appliances'.
- 7 In the case of balanced flue appliances, because the product is non-combustible there are no restrictions on the use of EnergySaver.

Typical specification clause

Rockwool EnergySaver cavity wall blown wool installed by Approved Installers trained by Rockwool Limited, Pencoed, Bridgend CF35 6NY, and installed in accordance with British Board of Agrément Certificate No. 89/2316.

Health and safety

A COSHH Data sheet is available from Rockwool Marketing Services Department.

Current HSE 'CHIP' Regulations and EU Directive 97/69/EC confirm that Rockwool fibres are not classified as a possible carcinogen.

Technical Helpline

Technical advice relating to Rockwool Energysaver is available from the Rockwool Technical Helpline Services Department on **0871 222 1780**.

Rockwool Limited reserves the right to alter or amend the specification of products without notice as our policy is one of constant improvement.

The information contained in this data sheet is believed to be correct at the date of publication. Whilst Rockwool will endeavour to keep its publications up to date, readers will appreciate that between publications there may be pertinent changes in the law, or other developments affecting the accuracy of the information contained in this data sheet.

The above applications do not necessarily represent an exhaustive list of applications for EnergySaver. Rockwool Limited does not accept responsibility for the consequences of using EnergySaver in applications different from those described above. Expert advice should be sought where such different applications are contemplated, or where the extent of any listed application is in doubt.

ROCKWOOL
FIRE SAFE INSULATION

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