Quality energy conservation

Rockwool EnergySaver is a cost-effective, blown wool cavity wall insulation. Made from highly sustainable volcanic rock, it is an entirely dry and vapour permeable system that allows new and existing constructions to breathe.

Non-combustible and treated with an inert water repellent during manufacture; EnergySaver is the natural choice for energy conservation.

The following NBS clauses include Rockwool Energysaver:
P11:40, P11:220
Advantages

- Ensures a complete fill without settlement
- Water repellent – prevents water from migrating across the cavity
- Vapour permeable – breathable; reduces the risk of condensation
- Non-combustible (Euroclass A1)
- Suitable for both existing and new build cavity walls
- British & Irish Agrément Board approval for use up to 25m height
- Installation by approved Rockwool installers
- Cost-effective solution
- Quick and clean to install

Rockwool EnergySaver cavity wall insulation is normally installed to a predetermined density in existing properties by drilling and filling via the outer leaf of the cavity wall. It is installed through 18mm or 25mm holes, drilled at 1.5m centres in a staggered ‘W’ pattern. When working on facing brick walls, these holes are normally located at mortar joint positions.

Additional filling holes may be required to ensure that the cavity is completely filled. After injection, the existing finish of the wall is matched as closely as possible.

In new buildings, installation may be carried out, either from the outside, or through the inner leaf of the cavity wall, prior to plastering.

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 respective Agrément Certificate Board. 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 (see diagram 1).

Minimum cavity widths

Under the Agrément Board approvals, the minimum residual cavity width for existing buildings being filled are:

- 50mm (BBA Certification No. 89/2316)
- 40mm (IAB Certificate No. 05/0222)
Site surveys

An inspection survey is carried out by the approved installer to determine the suitability of the building for EnergySaver using the following criteria:

- Walls must be in a good state of repair and free from evidence of frost damage.
- There should be no signs of dampness on the inner face of the existing cavity wall other than those caused solely by condensation.
- Any defects recorded which may affect the performance of the installed insulation system must be rectified by the client to the satisfaction of the certificate holder/approved installer before work commences.
- Where practicable, all open cavities at the top of walls should be sealed prior to filling. It is also essential that airbricks and vents are checked in advance to prevent them from being blocked during installation.

- When filling the cavity of one dwelling in a pair of semi-detached or terraced properties, a vertical ‘brush’ stop must be installed between the respective properties prior to installation.
- In existing buildings with open-flued or chimney arrangements any heating appliances that require installing should be checked before and after EnergySaver installation to ensure that they comply with BS 5440: Part 2: ‘Ventilation of new or replacement gas appliances’.
- In terms of balanced flue appliances there are no restrictions on the use of EnergySaver because it is non-combustible.
Rockwool Energysaver

Typical pattern for detached houses. The maximum:

1. height above the damp proof course should be 1.0 metre
2. distance from corners or other vertical features should be 1.0 metre
3. centres for fill holes horizontally and vertically should be 1.5 metres
4. distance below a soffit on a sloping gable should be 0.35 metres at 1.0 metre centres
5. distance below windows or horizontal soffit should be 0.35 metres at 0.7 metre centres.

In cases of facing brick or block walls, holes are normally located at mortar joint positions.

Guarantee

EnergySaver carries a 25-year guarantee in existing domestic properties, issued by the Cavity Insulation Guarantee Agency (CIGA), when it is installed by Rockwool approved installers in accordance with our specifications and conditions.

Durability

- EnergySaver has over 40 years' proven service in all types of climate and degrees of exposure. It provides effective protection for the lifetime of the building.
- It 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, masonry or cause loss of plasticiser from PVC cables and pipes.

Water resistance

- This insulation repels water due to the presence of water resistant additives.
- The EnergySaver system is designed to prevent water from transmitting to the inner leaf.
- In situations where the insulation is present above and below the ground-floor damp-proof course, it prevents ground water from being transmitted by capillary action.

Condensation control

- EnergySaver reduces the risk of condensation and allows natural drying out of the wall construction due to its ability to ‘breathe’.
- Moisture condensing from the air within the insulation is less than 0.02% by volume at 95% relative humidity.
- The vapour resistance of EnergySaver is negligible. Calculations of vapour diffusion through structures have shown that it is generally the same as for air.
- Where condensation and black-spot mould have occurred on inner walls of existing occupied buildings, providing that heating and ventilation are adequate and it is not a result of a cold bridge, EnergySaver assists in the reduction of this problem.
Standards and quality approvals

Certification
EnergySaver has been examined by both the British Board of Agrément (BBA) and the Irish Agrément Board (IAB). Certification covers use in masonry cavity walls with a minimum 50mm cavity width (IAB 40mm), for buildings up to 25m in height, in any exposure zone. The assessments are covered by: BBA Certificate No. 89/2316 & IAB Certificate No. 05/0222

Building regulations
EnergySaver blown cavity wall insulation complies with the relevant sections of the:
- Building Regulations (England and Wales)
- Building Standards (Scotland)
- Building Regulations (Northern Ireland)
- Technical Guidance Document (Republic of Ireland)

Rockwool EnergySaver assists in eliminating the thermal bypass effect between party walls. Recent changes to Part L1A of the Building Regulations and Scotland Section 6 have both placed an unprecedented focus on the thermal effect of party wall cavities in new build dwellings. Referred to as party wall ‘thermal bypass’, it represents a major concern to house builders and designers in terms of achieving compliance for semi-detached and terraced property types.

Using Rockwool EnergySaver to completely fill the cavity of masonry party walls helps to eliminate the thermal bypass, reducing the effective U-value for a party wall to zero.

Further information and solutions to the 2010 regulation changes can be found on www.rockwool.co.uk

Fire
Rockwool EnergySaver cavity wall insulation is non-combustible and classified as Euroclass A1 to BS EN ISO 13501-1.

Building notices
Where the use of EnergySaver insulation is being planned for existing buildings, a building notice and accompanying statement must be given to the local authority by the installer in accordance with the requirements of their regulations not less than 48 hours before work commences. Notification of completion of work must also be given not more than 7 days thereafter in accordance with regulations.

Product performance
Thermal performance
Rockwool EnergySaver cavity wall insulation has a thermal conductivity of 0.039 W/mK.
Rockwool Energysaver

U-Values

EnergySaver cavity wall insulation conserves energy and reduces the demand on fuels.

Example

- An existing uninsulated cavity wall comprising of 102mm brick outer leaf, 60mm clear cavity with a dense block and plaster finish has a U-value of 1.68 W/m²K.

After:

- Retro filling the cavity with 60mm Rockwool EnergySaver will improve the U-value to 0.52 W/m²K

Typical U-value examples - new build

- 102mm facing brick outer skin
- Rockwool Energysaver full fill
- 100mm internal concrete block (see U-value table below for options)
- Internal finishes light plaster or plasterboard on dabs

The thermal conductivity of Rockwool Energysaver is 0.039W/mK.
As an environmentally conscious company, Rockwool promotes the sustainable production and use of insulation and is committed to a continuous process of environmental improvement.

All Rockwool products provide outstanding thermal protection as well as four added benefits:

- Fire resistance
- Acoustic comfort
- Durability
- Sustainable materials

The safety of Rockwool stone wool is confirmed by current UK and Republic of Ireland health and safety regulations and EU directive 97/69/EC; Rockwool fibres are not classified as a possible human carcinogen. A Material Safety Data Sheet is available from Rockwool Technical Support (0871 222 1780) and can be downloaded from www.rockwool.co.uk to assist in the preparation of risk assessments, as required by the Control of Substances Hazardous to Health Regulations (COSHH).

Relying on entrapped air for its thermal properties, we are proud to say that Rockwool insulation does not contain (and has never contained) gases that have ozone depleting potential (ODP) or global warming potential (GWP). Rockwool therefore complies with the relatively modest threshold of GWP<5 included in documents such as the Code for Sustainable Homes.

Rockwool is increasingly involved in recycling waste Rockwool material that may be generated during installation or at end of life.

We are happy to discuss the individual requirements of contractors and users considering returning Rockwool materials to our factory for recycling.
Rockwool Energysaver

More information
For further details visit our website at www.rockwool.co.uk or phone Rockwool Technical Support 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 Rockwool Energysaver. Rockwool Limited does not accept responsibility for the consequences of using Rockwool Energysaver in applications different from those described within this data sheet. Expert advice should be sought where such different applications are contemplated, or where the extent of any listed application is in doubt.