

Thermal protection for masonry cavity walls

Thermal Insulation Batt provides thermal insulation for external walls as well as thermal and acoustic insulation for party walls.

Thermal Insulation Batt is quick and easy to install, providing a tight fit, without gaps, to maximise performance. Water repellence means that any moisture from the external leaf will not transfer to the inner leaf, helping to prevent rot and mould. The batts are also Euroclass A1 non-combustible, and do not require the use of additional cavity barriers.

- Non-combustible Euroclass A1
- British Board of Agrément approved for use in all exposure zones
- Quick and easy to install without gaps
- Does not require the use of cavity barriers



ROCKWOOL Thermal Cavity Batts are a semi-rigid full fill insulation solution for use in external and party masonry cavity walls.

The batts are quick and easy to cut, and provide a great fit, reducing installation time, avoiding gaps and cold spots, and maximising long-term performance. Water repellence stops the transfer of moisture from the outer to the inner leaf of the wall, preventing rot and mould.



APPLICATIONS

ROCKWOOL Thermal Cavity Batt is designed for use in external masonry cavity walls to deliver thermal protection in residential extension and renovation work. The following tables show the typical construction details and their corresponding thermal performance, or U-value. The Thermal Cavity Batts are also used in masonry party walls to prevent the "thermal bypass effect", and achieve a zero U-value, while also providing the required sound reduction.

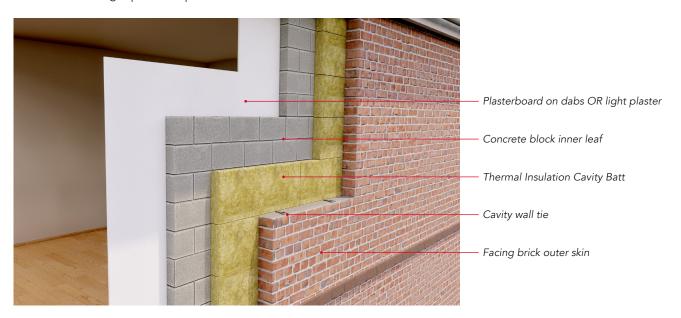
ROCKWOOL Thermal Cavity Batts have been examined by the British Board of Agrément (BBA) and granted Certificate 94/3079 for use in all exposure zones for domestic and non-domestic buildings that are up 25m in height.

The NHBC accepts the use of ROCKWOOL Thermal Cavity Batt, other than in very severe exposure locations with fair-faced masonry, provided it is installed, used and maintained in accordance with the BBA Certificate, in relation to NHBC Standards, Chapter 6.1, External masonry walls.

Typical Constructions

Construction 1

102mm Facing brick outer skin, ROCKWOOL Thermal Insulation Cavity Batt, 100mm internal concrete block (various densities). Internal finishes: light plaster or plasterboard on dab.



Internal block W/mK	Dense 1900-2250kg/m³ 1.130 W/mK		Medium Dense 1400-1450kg/m³ 0.470 W/mK		Aircrete Hi Strength 750kg/m³ 0.190 W/mK		Aircrete Standard 600kg/m³ 0.150 W/mK	
Internal	Light	P/board	Light	P/board	Light	P/board	Light	P/board
finish	plaster	on dab	plaster	on dab	plaster	on dab	plaster	on dab
Cavity (mm)	U-value	U-value	U-value	U-value	U-value	U-value	U-value	U-value
	W/m²K	W/m²K	W/m²K	W/m²K	W/m²K	W/m²K	W/m²K	W/m²K
100	0.32	0.30	0.31	0.29	0.28	0.27	0.28	0.27

Construction 2

Render on 100mm medium dense block outer, ROCKWOOL Thermal Insulation Cavity Batt, 100mm internal concrete block (medium dense or Standard Aircrete).

Internal finishes: light plaster or plasterboard on dab.

Internal block W/mK	1400-14	m Dense 450kg/m³ I W/mK	Aircrete Standard 600kg/m³ 0.150 W/mK		
Internal finish	Light plaster	Plasterboard on dab	Light plaster	Plasterboard on dab	
Cavity (mm)	U-value W/m²K	U-value W/m²K	U-value W/m²K	U-value W/m²K	
100	0.31	0.29	0.28	0.27	

The U-values shown in the constructions above are based on the following:

- Internal face of walls lined with either plasterboard on dab or 13mm lightweight plaster
- Block sizes assumed to be 440 x 215mm, mortar joints assumed to be 10mm wide
- Wall ties are stainless steel with a cross-sectional area of 12.5mm²

Party wall thermal bypass - achieving a zero heat loss

Building standards have also recognised that where party cavity walls between connected buildings are untreated, considerable heat can escape through them. A key feature of the SAP calculation is that party wall cavities should have a zero heat loss (U-value 0.00W/m²K). If these cavities are left unfilled and unsealed, a U-value of 0.05W/m²K will automatically be applied making it extremely difficult to meet the TER compliance.

Party wall construction	U-value (W/m²K)
Unfilled cavity with no effective edge sealing	0.50
Unfilled cavity with effective edge sealing only	0.20
Fully filled cavity and effective edge sealing	0.00

Perimeter edge sealing details

The table below details how to achieve perimeter edge sealing using the ROCKWOOL Thermal Cavity Batt and PWCB.

Perimeter edge sealing:	ROCKWOOL PWCB
Party Wall Insulation:	100mm party wall filled with ROCKWOOL Thermal Cavity Batt
Party Wall Blocks:	100mm (min) each leaf (dense aggregate blocks density 1850-2300kg or lightweight aggregate blocks density 1350-1600kg
Wall Finish to Party Wall:	Gypsum-based board (nominal mass 8kg/m²) mounted on dabs with parged finish to block faces

Party walls – Achieving Part E of the Building Regulations (resistance to the passage of sound)

As well as delivering the required thermal performance for extensions and thermal upgrades in external cavity walls, ROCKWOOL Thermal Cavity Batt also achieves a zero U-value heat loss in party walls, and helps to achieve the required airborne sound reduction of 45dB to achieve Part E of the building regulations.

Robust detail approval for use as acoustic insulation in masonry party wall constructions

Robust Details Limited was formed in December 2003 in response to the housebuilding industry's request for an alternative to pre-completion sound testing, as a means of satisfying the sound insulation requirements of the Building Regulations.

Below are the constructions to achieve the referenced Robust detail for masonry construction.

Robust detail wall reference - masonry	Party wall construction	Party wall cavity size (mm)
E-WM- 1	Dense blocks 1850-2300kg wet plaster	75-100
E-WM- 2	Light agg. blocks 1350-1600kg wet plaster	75-100
E-WM- 3	Dense blocks 1850-2300kg render faces/plasterboard on dab	75-100
E-WM- 4	Light agg. blocks 1350-1600kg render/plasterboard on dab finish	75-100
E-WM- 5	Besblock "Star Performer" dense aggregate cellular blocks/render/plasterboard on dab	75-100
E-WM-11	Lightweight 1350-1600kg agg. or nominated hollow or cellular blocks/render/ plasterboard on dab	75-100
E-WM- 16	Dense aggregate blocks 1850-2300kg render/plasterboard on dab	75-100
E-WM- 18	Dense blocks 1850-2300kg wet plaster	100
E-WM- 19	Monarfloor Bridgestop System 100 mm Dense or lightweight blocks or nominated hollow or cellular blocks/render/plasterboard on dab	100

TECHNICAL INFORMATION

Technical information

Thermal

ROCKWOOL Thermal Insulation Cavity Batt achieves a thermal conductivity lambda (λ) value of 0.037 in accordance with BS EN 13162:2012 + A1:2015.

Fire classification

Achieves a reaction to fire classification of A1, as defined in EN13501-1. Resistance to fire spread between and within cavities. ROCKWOOL Cavity Batt is non-combustible and therefore suitable for use in buildings of every purpose group. It also acts as an effective cavity barrier when tightly fitted between masonry leaves where an insulated wall connects with an uninsulated wall cavity.

Water resistance and moisture

The product will resist the transfer of water across the cavity. The orientation of the water repellent fibres prevent water crossing the wall construction, provided the batts are correctly installed and sound building techniques are applied to the cavity wall construction (see installation notes). Any water penetrating the outer leaf will drain down the surface of the batts.

Condensation

ROCKWOOL stone wool insulation allows the construction to breathe, reducing the risk of condensation, which can lead to rot, mould and humidity damage.

Product information

Product	Thickness	Width	Length	Batts	Coverage	Lambda	R-value
	(mm)	(mm)	(mm)	per pack	per pack (m²)	(W/mK)	(W/m²K)
Thermal Insulation Cavity Batt	100	455	1200	6	3.28	0.037	2.7

BUILDING SAFETY AND PRODUCT USE

LEGAL NOTICES

General safety requirements – Building Safety Act 2022

ROCKWOOL Limited is committed to supporting specifiers, resellers and users of ROCKWOOL products for the full life cycle of the product to comply with the obligations and responsibilities set out in the Building Safety Act 2022. With regard to the general safety requirements of the Act, ROCKWOOL Limited cannot control or foresee every situation where its products might be used. We therefore strongly advise that specifiers, resellers and users contact us where use of ROCKWOOL products is contemplated in applications different from those explicitly described in the latest, relevant ROCKWOOL product datasheets; especially in applications that can be reasonably foreseen as critical to safety.

ROCKWOOL Limited reserves the right to amend the specification of its products without notice. Changes to the ROCKWOOL manufacturing process, or to pertinent regulations, may be reflected in changes to tested and certified product performance. Whilst ROCKWOOL Limited endeavours 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 our publications.

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The ROCKWOOL Trademark

ROCKWOOL® - our trademark

The ROCKWOOL trademark was initially registered in Denmark as a logo mark back in 1936. In 1937, it was accompanied with a word mark registration; a registration which is now extended to more than 60 countries around the world.

The ROCKWOOL trademark is one of the most important assets of the ROCKWOOL Group, and is therefore well-protected and defended by ROCKWOOL throughout the world.

If you require permission to use the ROCKWOOL logo for your business, advertising or promotion, you must apply for a Trade Mark Usage Agreement.

To apply, write to: marketcom@rockwool.com

Trademarks

Registered trademarks of the ROCKWOOL Group include but are not limited to:

ROCKWOOL®, RockClose®, RainScreen Duo Slab®, HardRock®, RockFloor® Flexi®, RockFall®, FirePro®, DuctRock®, BeamClad®, NyRock®

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To apply, write to: marketcom@rockwool.com

ROCKWOOL stone wool - safe to install and live alongside

There are no hazardous classifications associated with stone wool insulation manufactured by ROCKWOOL-UK according to EU REACH and UK REACH regulations on health and the environment.

ROCKWOOL safe use instruction sheets and material safety data sheets (where applicable) can be downloaded here.



Sustainability

ROCKWOOL products are used to enrich modern living, creating safer, healthier and more climate-resilient communities.

We transform abundant, natural volcanic rock into stone wool insulation products that are used to reduce energy demand, lower fuel bills and help address society's climate change challenges.

ROCKWOOL stone wool insulation is recyclable and can be transformed into new ROCKWOOL products. Please contact us for details of how we can work together to recycle waste ROCKWOOL stone wool material that may be generated during on-site installation.

Our annual sustainability reports, which set out progress against our sustainability goals, and further details of the positive impacts of using our products can be found on our website.



Environment

ROCKWOOL takes a fact-based, auditable approach to documenting our progress in maximising our products' positive impact and minimising the effect our operations have on the environment, backed by third-party references and methodologies. Further details can be found online in our annual sustainability report.

Our high-tech production process uses filters, pre-heaters, after-burners and other cleaning and collection systems that help to reduce the effects of our manufacturing operations on the environment.

ROCKWOOL stone wool insulation does not contain (and has never contained) gases that have ozone depletion potential (ODP) or global warming potential (GWP).

