

MERCHANT PRODUCT GUIDE



We have the whole house covered.

'Whatever you need, there's an Earthwool® product that does the job'

Application	Pitched roof ceiling level	Pitched roof rafter level	Masonry cavity	Timber frame	Party walls	Internal walls	Internal floors	Ground floors
Loft Roll	✓ 🌥	-	-	-	-	-	-	
Rafter Roll	-	✓ 🌥	-	-	-	-	-	-
DriTherm Cavity Slab	-	-	✓ 🌥	-	-	-	-	-
FrameTherm Roll /Slab	-	✓	-	✓ 🌥	-	-	-	-
Party Wall Slab	-	-	-	-	✓ 🌥	-	-	-
Acoustic Roll	-	-	-	-	-	✓ 🌥	✓ 🌥	-
OmniFit Slab	-	✓	-	√	-	✓	✓	✓ 🌥
OmniFit Roll	✓	-	-	√	-	✓	✓	√
OmniFit Stud	-	✓	-	√	-	-	-	-
Flexible Slab	-	✓	-	√	-	✓	✓	√
Building Slab RS45	-	✓	-	-	-	✓	✓	✓ 🌥



Rafter



Ceiling level (loft)



Party wall



Internal walls



Masonry cavity/ timber frame walls



Internal floors



Ground floors



= Suitable











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sustainability

INTRODUCTION



A guide designed just for you - the Builders Merchant

Your needs have helped us to develop our service offering for merchants. We firmly believe that developing strong relationships with our customers is key to an effective supply chain.

To ensure the service to our customers is the best it can possibly be, we have invested heavily in a bespoke and dedicated service for merchants. We are already seeing our customers benefiting.

This guide is part of that service. It is designed to help you provide the best advice and information about our products.

KNAUFINSULATION is the UK's leading manufacturer of mineral wool insulation products, with excellent thermal, acoustic and fire performance characteristics, including:

- Earthwool® Glass Mineral Wool
- Earthwool® Rock Mineral Wool



Knauf Insulation's core glass and rock mineral wool range is unified under one name



Earthwool utilises the groundbreaking binding process of ECOSE® Technology. A sustainable binder that has no added formaldehyde, acrylics or artificial colours. Which is why our products look the way they do.

ECOSE Technology has been developed for Knauf Insulation's glass and rock mineral wool products, and has been a significant step change in the mineral wool industry. Earthwool products are:

- Soft to handle
- Quick to recover

earthwoo

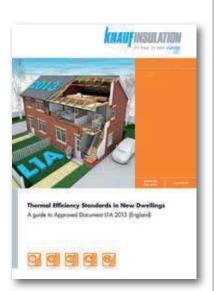
Easy to cut





Our glass mineral wool products with ECOSE Technology were the first in the world to receive the coveted Eurofins Gold Certificate for Indoor Air Comfort.

KNAUFINSULATION



INTRODUCTION

This guide is designed to provide an overview to the most suitable Knauf Insulation solutions for a variety of applications. It is divided into 2 main sections – **Applications** and **Products** – to allow quick reference based on the information you need.

BUILDING REGULATIONS – THERMAL REQUIREMENTS

Approved Document L of the Building Regulations covers the thermal performance of buildings and dictates a minimum level of thermal performance for each building element by stating a back-stop U-value per application. These are known as limiting fabric parameters.

In existing buildings, meeting these limiting fabric parameters will provide compliance. However, all new buildings must meet a minimum level of energy efficiency. The energy efficiency of a new home, for example, is calculated using SAP (Standard Assessment Procedure).

In addition, in order to meet the minimum level of energy efficiency for a new home, it is generally required to improve on the limiting fabric parameters. Therefore providing a better level of thermal performance than prescribed.

Within this guide, we highlight the limiting fabric parameter where relevant and our recommended level of thermal performance. Which, if followed, will provide compliance with Approved Document L in most instances.

We also highlight a higher level of performance for those who are looking to design to a better level of thermal performance whilst minimising energy use and fuel bills.

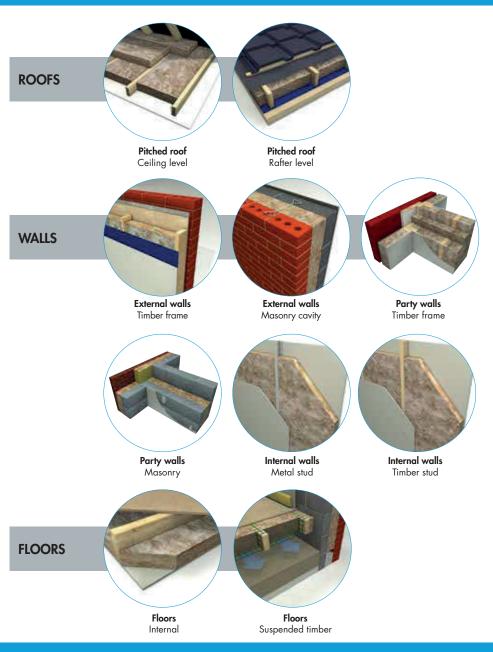
BUILDING REGULATIONS – ACOUSTIC REQUIREMENTS

Building Regulations covering noise reduction are more prescriptive than thermal requirements. A performance level which, if achieved, will ensure compliance.

This guide shows the Knauf Insulation solutions which will provide compliance with acoustic requirements in relevant applications such as Internal walls, party walls, and internal floors.

APPLICATIONS

KNAUFINSULATION



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PITCHED ROOF - CEILING LEVEL

BEST PERFORMING PRODUCT Earthwool Loft Roll 40





ADVANTAGES

- Longer roll lengths than competitor alternatives
- Product is lightweight and partially perforated for quick installation
- Designed for use between either 400mm or 600mm joists

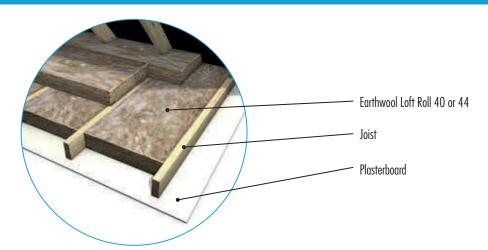
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Earthwool OmniFit Roll	31









BUILDING REGULATION REQUIREMENTS AND OUR RECOMMENDATIONS

Dischad woof	asiling lavel	U-value	Between joists		Тор	layer
Pitched roof — ceiling level		(W/m ² K)	Product	Thickness	Product	Thickness
Refurbishment	Minimum required	0.16	Earthwool Loft Roll 44	100mm	Earthwool Loft Roll 44	170mm
Keturdishirheni	Recommended	0.11	Earthwool Loft Roll 44	100mm	Earthwool Loft Roll 44	300mm (2 x 150)
Na hild	Recommended	0.11	Earthwool Loft Roll 44	100mm	Earthwool Loft Roll 44	300mm (2 x 150)
New build	High performance	0.08	Earthwool Loft Roll 40	100mm	Earthwool Loft Roll 40	400mm (2 x 200)

THERMAL PERFORMANCE

Refurbishment

Where more than 50% of the surface of an individual element, or 25% of the total building envelope, is to be renovated, the thermal performance of the roof, if insulated at ceiling level, should be improved to a U-value of $0.16W/m^2K$.

New build

The limiting fabric parameter in Approved Document L1A (both 2010 and 2013) is 0.20W/m²K. However, we would recommend a U-value of 0.11W/m²K to provide compliance for most house types. For a higher level of performance we would suggest a U-value of 0.08W/m²K.

We would suggest that you should optimize performance at any opportunity and loft insulation is most cost effective way of improving thermal performance in terms of ratio of cost to energy saved.

Have you ever wanted to order glass and rock mineral wool products on the same vehicle?





(now you can, with no surcharge!)









PITCHED ROOF - RAFTER LEVEL

BEST PERFORMING PRODUCT Earthwool Rafter Roll





ADVANTAGES

- Rafter roll friction fits between rafters preventing gaps which can otherwise lead to unwanted air movement and heat loss
- High level of thermal performance -0.032W/mK (75-100mm)
- Much guicker to install between rafters than rigid foam boards

PRODUCT INFORMATION **PAGE**

25 Earthwool Rafter Roll

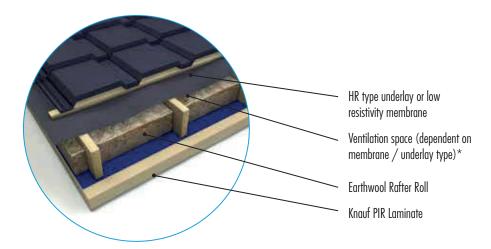
OTHER SUITABLE PRODUCTS

Earthwool OmniFit Slab	30
Earthwool OmniFit Stud	32
Earthwool FrameTherm Roll / Slab	22
Earthwool Flexible Slab	21
Earthwool Building Slab RS45	19









BUILDING REGULATION REQUIREMENTS AND OUR RECOMMENDATIONS

Pitched roof — rafter level	U-value (W/m²K)	Earthwool Rafter Roll thickness	Knauf PIR laminate (0.022W/mK) thickness	
	0.18	100mm	65mm	
Recommended		150mm (2 x 75mm)	35mm	
		175mm (75 + 100mm)	35mm	
High performance	0.16	200mm (2 x 100mm)	35mm	

Note: Rafter sizes assumed to be 38mm wide at 600mm centres (6.3% bridging) and the same depth as the insulation.

THERMAL PERFORMANCE

Refurbishment

Where more than 50% of the surface of an individual element, or 25% of the total building envelope, is to be renovated, the roof, if insulated at rafter level, should be improved to a U-value of 0.18W/m2K. Where the existing rafter depth is less than the depth of insulation required, the rafter should be extended; for example, using timber battens.

New build

The limiting fabric parameter in Approved Document L1A (both 2010 and 2013) is 0.20W/m²K.

Improving over and above the required U-value does not make a big impact within SAP as, generally, the insulated area of a warm roof is relatively small in comparison with other building elements.

We would therefore recommend a U-value of 0.18W/m²K to provide compliance with most house types. For an improved building fabric a U-value of 0.16W/m²K could be used.

^{*} If using counter batten system - ventilation space not required. If using tiling battens only - ventilation space; LR membrane = 10mm minimum / HR membrane = 50mm minimum

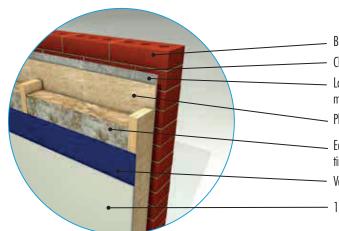
EXTERNAL WALLS - TIMBER FRAME











Brick outer leaf

Clear cavity

Low emissivity vapour permeable membrane

Plywood sheathing

Earthwool FrameTherm between timber studs

Vapour control layer

12.5mm plasterboard

BUILDING REGULATION REQUIREMENTS AND OUR RECOMMENDATIONS

Timber frame walls		U-value	Between studs			
Timber Tra	ime waiis	(W/m ² K)	Product	Thickness		
Extensions		0.25	Earthwool FrameTherm Roll 40	140mm		
Navy build	Recommended 0.22		Earthwool FrameTherm Roll 32	140mm		
New build	High performance	0.19*	Earthwool FrameTherm Roll 32	140mm		

Notes: Timber bridging is assumed at 15% and the stud depth is taken to be the same thickness of insulation specified.

THERMAL PERFORMANCE

Extensions

Where an extension is being built the required minimum U-value for an external timber frame wall is 0.28W/m²K. However, to suit the most common thicknesses of timber studs we would recommend fully filling the void between studs which provides a U-value of 0.25W/m²K.

New build

The limiting fabric parameter in Approved Document L1A (both 2010 and 2013) is 0.30W/m²K.

In reality, to provide compliance with most house types, and making use of the available 140mm thickness of most timber studs, we would recommend a U-value of 0.22W/m²K. For a higher level of performance we would suggest a U-value of 0.19W/m²K.

BEST PERFORMING PRODUCT

Earthwool FrameTherm Roll 32





- Product range designed to suit 90mm and 140mm studs
- Products friction fit between timber studs preventing air movement which can lead to heat loss
- Products are ready-cut to allow quick and simple installation

PRODUCT INFORMATION PAGE

Earthwool FrameTherm Roll 32 22

OTHER SUITABLE PRODUCTS

Earthwool FrameTherm Roll 35 & 40 22
Earthwool FrameTherm Slab
32, 35, 38 22
Earthwool OmniFit Slab 30
Earthwool OmniFit Stud 32
Earthwool Flexible Slab 21
Earthwool Building Slab RS45 19







^{*}U-value of $0.19W/m^2K$ achieved using service void and low emissivity VCL.











MASONRY CAVITY WALLS

BEST PERFORMING PRODUCT Earthwool DriTherm Cavity Slab 32





ADVANTAGES

- Faster and more cost effective to install than rigid foam boards
- No requirement for retaining discs
- BBA certified and suitable for use in all exposure zones
- Moisture resistant

PRODUCT INFORMATION **PAGE**

Earthwool DriTherm Cavity Slab 32 Ultimate 20

OTHER SUITABLE PRODUCTS

Earthwool DriTherm Cavity Slab 34 Super	20
Earthwool DriTherm Cavity Slab 37 Standard	20

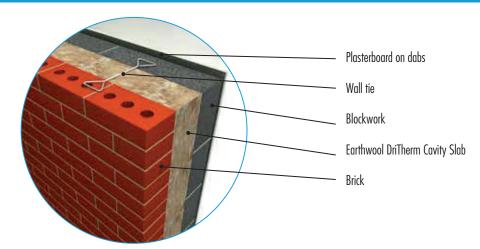












BUILDING REGULATION REQUIREMENTS AND OUR RECOMMENDATIONS

Masonry	cavity walls	U-value	Lightweight aggregate block (0.28W/mK)		Standard aircrete block (0.15W/mK)	
•	•	(W/m²K)	Product	Thickness	Product	Thickness
Extensions	Minimum required	0.28	Earthwool DriTherm Cavity Slab 37	100mm	Earthwool DriTherm Cavity Slab 37	100mm
EXIGUSIONS	Recommended	0.25	Earthwool DriTherm Cavity Slab 32	100mm	Earthwool DriTherm Cavity Slab 34	100mm
Nam build	Recommended	0.25	Earthwool DriTherm Cavity Slab 32	100mm	Earthwool DriTherm Cavity Slab 34	100mm
New build	High performance	0.20	Earthwool DriTherm Cavity Slab 34	150mm	Earthwool DriTherm Cavity Slab 32	125mm

THERMAL PERFORMANCE

Extensions

Where an extension is being built the required minimum U-value for a cavity wall is 0.28W/m²K.

The limiting fabric parameter in Approved Document L1A (both 2010 and 2013) is 0.30W/m²K.

In reality, to provide compliance with most house types we would recommend a U-value of 0.25W/m²K. For a higher level of performance we would suggest a U-value of 0.20W/m²K.

Full-fill mineral wool solutions provide the most cost effective solution to insulating a cavity wall and can provide high levels of savings compared to alternative solutions whilst still providing the required thermal performance.

EARTHWOOL DRITHERM CAVITY SLAB - U-VALUES











EARTHWOOL DRITHERM CAVITY SLAB 32 ULTIMATE Insulation Lightweight aircrete Standard aircrete High strength aircrete Lightweight aggregate Medium density Block type Thickness λ0.11 λ0.15 λ0.19 λ0.34 λ0.51 100mm 0.23 0.24 0.25 0.25 0.26 0.20 125mm 0.20 0.21 0.21 0.22 **U-values** 150mm 0.17 0.19 0.17 0.18 0.18 (W/m^2K) 175mm (100+75) 0.15 0.15 0.16 0.16 0.16 200mm (2x100) 0.13 0.14 0.14 0.14 0.14



SI I	EARTHWO	OOL DRITH	HERM CAVIT'	Y SLAB 34 SI	JPER	
Insulation Thickness	Lightweight aircrete \(\lambda 0.11\)	Standard aircrete	High strength aircrete λ0.19	Lightweight aggregate \(\lambda 0.34\)	Medium density λ0.51	Block type
100mm	0.24	0.25	0.26	0.27	0.27	
125mm	0.20	0.21	0.22	0.22	0.23	
150mm	0.18	0.18	0.19	0.19	0.20	U-values (W/m²K)
175mm (100+75)	0.16	0.16	0.16	0.17	0.17	(W/III K)
200mm (2x100)	0.14	0.14	0.15	0.15	0.15	



al	E,	ARTHWOO	L DRITHER	RM CAVITY S	SLAB 37 STAI	NDARD	
	Insulation Thickness	Lightweight aircrete λ0.11	Standard aircrete	High strength aircrete λ0.19	Lightweight aggregate $\lambda 0.34$	Medium density λ0.51	Block type
	100mm	0.26	0.27	0.27	0.28	-	
	125mm	0.22	0.23	0.23	0.24	0.25	
	150mm	0.19	0.20	0.20	0.21	0.21	U-values (W/m²K)
	175mm (100+75)	0.17	0.17	0.18	0.18	0.18	(W/III K)
	200mm (2x100)	0.15	0.15	0.16	0.16	0.16	















BEST PERFORMING PRODUCT

Earthwool Masonry Party Wall Slab and Earthwool Timber Frame Party Wall Slab





ADVANTAGES

- Allows a zero effective U-value to be used in SAP calculations
- Quick and easy to install
- Suitable for use in Robust Detail walls.

PRODUCT INFORMATION PAGE

Earthwool Masonry
Party Wall Slab 24
Earthwool Timber Frame

Party Wall Slab 24













BUILDING REGULATION REQUIREMENTS AND OUR RECOMMENDATIONS

Performance Level	U-value (W/m²K)	Wall Type	Product	Thickness(i)
Recommended		Masonry	Earthwool Masonry Party Wall Slab	100mm
	7 _{oro}	Musumy	Lutiliwoot Musolity Fully Wull Slub	75mm
	Zero	Timber Frame	Earthwool Timber Frame Party Wall Slab	100mm
		Tillibel Fluille	Edilliwool lillibel Flattle Fally Wall Slab	60mm

(i) Fully filling and effectively edge sealing the cavity between dwellings to the appropriate thickness will allow a zero effective U-value to be used within SAP

THERMAL PERFORMANCE

New Build

The limiting fabric parameter in Approved Document L1A (both 2010 and 2013) is 0.20W/m²K.

In reality, using a U-value of 0.20W/m²K means that other elements would need to be upgraded over and above that which may be considered sensible. We would recommend fully filling the party wall cavity to provide a zero effective U-value.

Fully filling the party wall to achieve a zero effective U-value is more cost effective than leaving it uninsulated and compensating elsewhere to meet the required level of energy efficiency within SAP.

ACOUSTIC PERFORMANCE

New Build

Approved Document E dictates minimum levels of sound insulation. Satisfactory performance can be demonstrated by either sound testing on site, or by building pre-defined constructions as detailed in Robust Details scheme.

Our solutions are applicable for use with a range of Robust Details as shown on page 11. Building these constructions using our dedicated products provides assured compliance.

ROBUST DETAIL WALL CONSTRUCTIONS



Party wall solutions

Robust Detail Separating Walls and Party Wall Bypass Solutions							
Robust Detail Wall Type	Minimum Cavity Width (mm)	Block Type	Block Density (kg/m³)	Wall Finish	Parge coat	Zero U-value	Earthwool Masonry Party Wall Slab
E-WM-1	75	Dense	1850 to 2300	Wet plaster	Yes	Yes	✓
E-WM-2	75	Light aggregate	1350 to 1600	Wet plaster	Yes	Yes	1
E-WM-3	75	Dense	1850 to 2300	Plasterboard on dabs	Yes	Yes	✓
E-WM-4	75	Light aggregate	1350 to 1600	Plasterboard on dabs	Yes	Yes	✓
E-WM-5	75	Besblock	1528	Plasterboard on dabs on cement render	Yes	Yes	✓
E-WM-6	75	Aircrete	600 to 800	600 to 800 Plasterboard on dabs on cement render		Yes	✓
E-WM-10	75	Aircrete - thin joint	600 to 800	Plasterboard on dabs on cement render		Yes	✓
E-WM-11	100	Light aggregate	1350 to 1600	Plasterboard on dabs		Yes	1
E-WM-12	75	Plasmor Aglite Ultima	1050	Plasterboard on dabs	Yes	Yes	✓
E-WM-13	75	Aircrete - thin joint	600 to 800	Plasterboard on dabs on cement render	Yes	Yes	1
E-WM-16	100	Dense	1850 to 2300	Plasterboard on dabs	Yes	Yes	1
E-WM-18	100	Dense	1850 to 2300	Wet plaster	Yes	Yes	1
E-WM-19	100	Dense or light aggregate	1350 to 1600 or 1850 to 2300	Plasterboard on dabs on cement render	Yes	Yes	1
E-WM-21	100	Light aggregate	1350 to 1600	Wet plaster	Yes	Yes	✓
E-WM-22	100	Light aggregate	1350 to 1600	Plasterboard on dabs (No parge coat)	No	Yes	✓
E-WM-25	100	Porotherm	n/a	Plasterboard on dabs	Yes	Yes	1
E-WM-26	100	Besblock	1528	Plasterboard on dabs	No	Yes	✓
E-WM-28	100	Light aggregate	1350 to 1600	Plasterboard on dabs (No parge coat)	No	Yes	- (i)
E-WM-30	100	Aircrete	600 to 800	Plasterboard on dabs (No parge coat)	No	Yes	✓

⁽i) E-WM-28 is a proprietarty Robust Detail which includes Knauf Insulation Supafil Party Wall

Timber Frame									
Robust Detail Wall Type	Minimum Cavity Width (mm)	Sheathing	Wall Finish	External (flanking) wall	CfSH Credits	Zero U-value	Eathwool Timber Frame Party Wall Slab		
E-WT-1	50	None ¹	2 or more layers of gypsum-based board	Outer leaf masonry min 50mm cavity	1	Yes	✓		
E-WT-2	50	9mm(min) thick board	2 or more layers of gypsum-based board	Outer leaf masonry min 50mm cavity	1	Yes	✓		

¹ Partial sheathing of the cavity faces of the separating wall for structural reasons is permitted but the cavity width must be 50mm including sheathing







INTERNAL WALLS

BEST PERFORMING PRODUCT

Earthwool Acoustic Roll





ADVANTAGES

- Excellent sound absorption
- Proven results when used with major brands of plasterboard
- Friction fitting between studs closes joints and helps to ensure sound insulation performance is achieved
- Ready-cut for quick and simple installation

PRODUCT INFORMATION PAGE

Earthwool Acoustic Roll 18

OTHER SUITABLE PRODUCTS

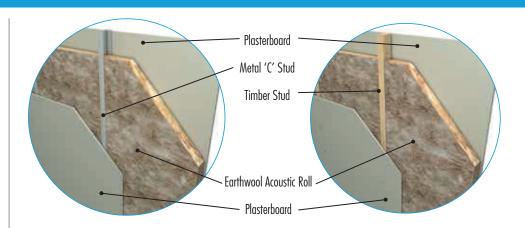
Earthwool OmniFit Slab 30 Earthwool Flexible Slab 21 Earthwool Building Slab RS45 19











BUILDING REGULATION REQUIREMENTS AND OUR RECOMMENDATIONS

Stud type	Performance level	Plasterboard	Product	Thickness
48mm metal	Minimum sound insulation required (40 R _w dB)	1 layer 12.5mm standard plasterboard on each side (i)	Earthwool Acoustic Roll	25mm
C stud	Recommended	1 layer 12.5mm standard plasterboard on each side (i)	Earthwool Acoustic Roll	50mm
63mm	Minimum sound insulation required (40 R _w dB)	1 layer 12.5mm acoustic plasterboard on each side (ii)	Earthwool Acoustic Roll	25mm
timber stud	Recommended	1 layer 12.5mm standard plasterboard on each side (i)	Earthwool Acoustic Roll	50mm

(i) Plasterboards used for testing were Knauf Wallboard and British Gypsum Gyproc Wallboard.

(ii) Plasterboards used for testing were Knauf Soundshield Plus and British Gypsum Gyproc Soundbloc.

For other build-ups and further information, contact our Technical Support Team

ACOUSTIC PERFORMANCE

New Build

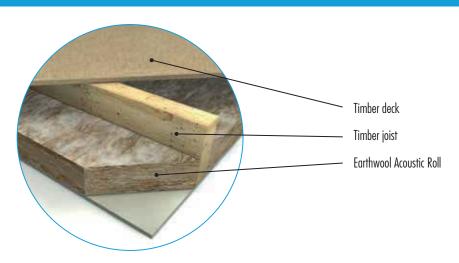
Building Regulation Approved Document E covers the acoustic requirements for sound insulation of Internal walls within residential houses and flats. All internal walls between a bedroom or room containing a WC and another room must have a minimum sound insulation of 40 $R_{\rm w}$ dB. The above solutions will provide compliance with Approved Document E.

FLOORS - INTERNAL









BUILDING REGULATION REQUIREMENTS AND OUR RECOMMENDATIONS

Floors — internal		Required density	Product	Thickness	
New build	Recommended	>10kg/m³	Earthwool Acoustic Roll	100mm	

ACOUSTIC PERFORMANCE

Section 5 of Approved Document E gives examples of internal floor constructions that meet the laboratory sound insulation values set out as a requirement within the document. By building to one of these construction elements, compliance will be demonstrated.

Approved Document E; Section 5 - Internal Floor Type C

Internal Floor Type C covers a construction of an internal floor using timber or metal joists, with wood-based board and plasterboard ceiling, and absorbent material.

The absorbent layer which is laid into the cavity should be mineral wool with a minimum thickness of 100mm, and a minimum density of 10kg/m³.

Earthwool Acoustic Roll is manufactured with a density in excess of 10kg/m3 to meet this requirement.

BEST PERFORMING PRODUCT Earthwool Acoustic Roll





ADVANTAGES

- Manufactured with a density in excess of 10kg/m³ to comply with Approved Document E
- Easy to install
- Friction fits to prevent air movement and passage of sound

PRODUCT INFORMATION PAGE

Earthwool Acoustic Roll 18

OTHER SUITABLE PRODUCTS

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Earthwool Flexible Slab	21
Earthwool Building Slab RS45	19









FLOORS - SUSPENDED TIMBER

BEST PERFORMING PRODUCT Earthwool OmniFit Slab





ADVANTAGES

- Friction fitting between timber joists prevents air movement which could otherwise lead to unwanted heat loss
- Flexible products accommodate movements in floor ensuring all joints remain closed
- Flexible edge on all 4 sides providing total flexibility for ease of installation

PRODUCT INFORMATION PAGE

Earthwool OmniFit Slab 30

OTHER SUITABLE PRODUCTS

Earthwool OmniFit Roll	31
Earthwool Flexible Slab	21
Earthwool Building Slab RS45	19







Earthwool OmniFit Slab Supporting netting Ventilated void

BUILDING REGULATION REQUIREMENTS AND OUR RECOMMENDATIONS

Floors — suspended timber	U-value (W/m²K)	Product	Thickness	
Existing floors renovated elements	0.25	Earthwool OmniFit Slab	100mm	
Extensions	0.22	Earthwool OmniFit Slab	140mm	

THERMAL PERFORMANCE

Refurbishment

Where more than 50% of the surface of an individual element, or 25% of the total building envelope, is to be renovated, the thermal performance of the floor should be improved to a U-value of $0.25 \text{W/m}^2\text{K}$.

Extensions

The limiting fabric parameter in Approved Document L1B is 0.22W/m²K.

We would suggest that you fully fill the joists to prevent air movement and use the space available.

earthwool Insulation made with feel good factors

- Award-winning ECOSE® Technology
- Manufactured using a technology mainly based on rapidly renewable materials with no added formaldehyde
- Made using a high content of recycled materials
- Awarded Eurofins Gold Standard for Indoor Air Quality
- Easier to cut compared to our traditional mineral wool
- Excellent thermal and acoustic performance
- Best possible Euroclass A1 Reaction to Fire rating
- No added artificial dyes or colourings















We are a trusted expert that sets the low energy building agenda and delivers innovative market solutions



innovation

Pioneering market innovations nurtured from customer insight and partnerships.



integrity

Being the only manufacturer of two different materials means we can provide advice on the best material for each application



exøertise

Respected for an unrivalled knowledge that sets the industry standard



PRODUCT INFORMATION





Earthwool
Acoustic Roll



Earthwool

DriTherm Cavity Slabs



Earthwool
Building Slab RS45



Earthwool
Flexible Slab



Earthwool
FrameTherm Roll and Slab



Earthwool
Loft Roll



Earthwool
Masonry Party
Wall Slab



Earthwool
Timber Frame Party
Wall Slab



Earthwool
Rafter Roll



Earthwool
OmniFit Roll



Earthwool
OmniFit Stud

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Earthwool FrameTherm Rolls 32, 35, 40	22
Earthwool FrameTherm Slabs 32, 35, 38	22
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Earthwool Masonry Party Wall Slab	24
Earthwool Timber Frame Party Wall Slab	24
Earthwool Rafter Roll	25
Earthwool OmniFit Slab	30
Earthwool OmniFit Roll	31
Earthwool OmniFit Stud	32

Earthwool

OmniFit Slab

www.knaufinsulation.co.uk





EARTHWOOL ACOUSTIC ROLL

DESCRIPTION

Designed specifically for sound insulation of residential building elements such as internal walls, internal floors and separating floors, as well as commercial partitions where compliance with acoustic regulations is required.

BENEFITS

- Excellent sound absorption
- Proven results when used with major brands of plasterboard
- Friction fitting between studs closes joints and ensures sound insulation performance is achieved
- Non-combustible Euroclass A1 Reaction to Fire rating

As used in applications shown on pages 12 and 13



	Product Specification							
Thickness (mm)	Length (m)	Width (mm)	Area per roll (m²)	No.Rolls in pallet	Product Code			
100	9.17	2x600	11.00	24	2438517			
100	9.17	3x400	11.00	24	2438514			
75	12.50	2x600	15.00	24	2438513			
50	13.00	2x600	15.60	24	2400365			
25	10.00	4x600	24.00	24	2400366			

Full load: 20 pallets

Building Regulations

England and Wales: Approved Document E

All internal walls between a bedroom or room containing a WC and another room must provide a minimum sound insulation of 40 R_w dB

Acoustic Performance						
Stud	Plasterboard	Roll thickness	Compliance			
Timber - 63x38mm	12.5mm standard plasterboard on each side*	50mm	✓			
Metal - 48mm C stud	12.5mm standard plasterboard on each side*	25mm	✓			

^{*} plasterboard used for testing was Knauf Wallboard and British Gypsum Gyproc Wallboard







EARTHWOOL BUILDING SLAB RS45











	Product Specification								
Thickness (mm)	Thermal Cond. (W/mK)	R-value (m² K/W)	Length (mm)	Width (mm)	Slabs per pack	Area per pack (m²)	Packs per pallet	Product Code	
150	0.035	4.25	1200	600	3	2.16	12	531096	
100	0.035	2.85	1200	600	5	3.60	12	2411339	
75	0.035	2.10	1200	600	6	4.32	12	2411328	
60	0.035	1.70	1200	600	8	5.76	12	2411425	
50	0.035	1.40	1200	600	10	7.20	12	2411327	
40	0.035	1.10	1200	600	12	8.64	12	2411326	
30	0.035	0.85	1200	600	16	11.52	12	2411424	
25	0.035	0.70	1200	600	20	14.40	12	2411325	

Full load: 22 pallets

DESCRIPTION

A rock mineral wool, multi-purpose slab for use in a variety of building applications including internal partitions, timber and metal studs and in between timber rafters and floor joists.

Offering combined thermal and acoustic insulation, Earthwool Building Slab RS45 is suitable for a wide range of applications in residential and non-residential buildings at nominal temperatures.

BENEFITS

- Versatile, multi-application product
- Excellent thermal, fire and acoustic properties
- Non-combustible Euroclass A1 Reaction to Fire rating

As used in applications shown on pages 6,7,12,13 and 14







EARTHWOOL DRITHERM CAVITY SLABS

DESCRIPTION

For thermal insulation in residential and non-residential masonry cavity external walls, Earthwool DriTherm Cavity Slabs have a special additive to make the product water repellent. They are 455mm wide to suit standard vertical wall tie spacings allowing a closed joint with adjacent slabs.

BENEFITS

- Faster and more cost effective to install than rigid foam boards
- BBA certified and suitable for use in all exposure zones
- Moisture resistant
- Non-combustible Euroclass A1 Reaction to Fire rating

As used in applications shown on page 8.



			Pro	duct Specif	ication			
Thickness (mm)	Thermal Cond. (W/mK)	R-value (m² K/W)	Length (m)	Width (mm)	Area per pack (m²)	Slabs per pack	Packs per pallet	Product Code
Earthwool D	PriTherm Cavity Slo	ab 32 Ultimat	e					
150	0.032	4.65	1200	455	2.18	4	30	580216
125	0.032	3.90	1200	455	2.18	4	35	316648
100	0.032	3.10	1200	455	3.28	6	20	2400407
85	0.032	2.65	1200	455	2.73	5	40	316644
75	0.032	2.30	1200	455	3.28	6	35	316642
Earthwool D	PriTherm Cavity Sk	ab 34 Super						
150	0.034	4.40	1200	455	2.73	5	20	2432892
125	0.034	3.65	1200	455	3.28	6	20	2441356
100	0.034	2.90	1200	455	4.37	8	20	2400412
75	0.034	2.20	1200	455	5.46	10	20	2400414
Earthwool D	PriTherm Cavity Slo	ab 37 Standa	rd					
150	0.037	4.05	1200	455	4.37	8	20	2440235
125	0.037	3.35	1200	455	3.28	6	40	316660
100	0.037	2.70	1200	455	6.55	12	20	2400401
85	0.037	2.25	1200	455	4.37	8	45	316656
75	0.037	2.00	1200	455	4.37	8	50	316654
65	0.036	1.80	1200	455	5.46	10	40	316652
50	0.035	1.40	1200	455	6.55	12	30	316650









EARTHWOOL FLEXIBLE SLAB











	Product Specification											
Thickness (mm)	Thermal Cond. (W/mK)	R-value (m² K/W)	Length (mm)	Width (mm)	Slabs per pack	Area per pack (m²)	Packs per pallet	Product Code				
140	0.035	4.00	1200	600	3	2.16	12	2411335				
100	0.037	2.70	1200	600	6	4.32	12	457994				
90	0.037	2.40	1200	600	6	4.32	12	457997				
70	0.037	1.85	1200	600	8	5.76	12	2411408				
60	0.037	1.60	1200	600	10	7.20	12	457996				
50	0.037	1.35	1200	600	12	8.64	12	457995				
40	0.037	1.05	1200	600	14	10.08	12	458170				

DESCRIPTION

Earthwool Flexible Slab is a multi-purpose flexible friction-fit slab for use in a wide variety of applications including internal partitions, timber and metal studs and in between rafters and floor joists, with excellent acoustic, thermal and fire properties.

Earthwool Flexible Slab is the only insulation that has a flexible edge on all four sides, rather than on one side.

Flexible Slab has a thermal conductivity of 0.037 W/mK (except 140mm which is 0.035W/mK).

BENEFITS

- Friction fits between rafters/joists etc.
- Versatile multi-purpose product
- Flexible edge on all 4 sides providing total flexibility for ease of installation
- Available in 600mm wide to suit common stud centres
- Non-combustible Euroclass A1 Reaction to Fire rating

As used in applications shown on pages 6,7,12,13 and 14

Full load: 22 pallets









EARTHWOOL FRAMETHERM ROLLS AND SLABS

DESCRIPTION

Earthwool FrameTherm is a specialist product for timber frame construction.

Earthwool FrameTherm rolls are used for 'friction fitting' between timber studs and rafters. Rolls are fully cut into 2x570mm to suit commonly used timber stud spacing. Slabs are made 570mm wide.

The Earthwool FrameTherm range has products with different levels of thermal performance to provide design flexibility and have an unbeatable A1 fire certification.

BENEFITS

- Designed to suit 90mm and 140mm studs at 600mm centres
- Products friction fit between timber studs preventing air movement which can lead to heat loss
- Quick and easy to install
- Non-combustible Euroclass A1 Reaction to Fire rating

As used in applications shown on pages 6 and 7



			Produ	uct Specificat	ion		
Thickness (mm)	Thermal Cond. (W/mK)	R-value (m² K/W)	Length (m)	Width (mm)	Area per roll (m²)	No. Rolls in pallet	Product Code
Earthwool F	rameTherm Roll 32	2					
140	0.032	4.35	2.80	2x570	3.19	24	2435999
90	0.032	2.80	4.50	2x570	5.13	24	2402014
Earthwool F	rameTherm Roll 35	5					
140	0.035	4.00	3.90	2x570	4.45	24	2407395
90	0.035	2.55	6.00	2x570	6.84	24	2407396
Earthwool F	rameTherm Roll 40)					
140	0.040	3.50	8.02	2x570	9.14	24	498560
90	0.040	2.25	12.50	2x570	14.25	24	498196

Thickness (mm)	Thermal Cond. (W/mK)	R-value (m² K/W)	Length (m)	Width (mm)	No. Slabs per pack	Area pack (m²)	No. Slabs in pallet	Product Code
Earthwool	FrameTherm Slab	32						
140	0.032	4.35	1170	570	4	2.67	16	2438531
Earthwool	FrameTherm Slab	35						
140	0.035	4.00	1170	570	6	4.00	16	2400394
90	0.035	2.55	1170	570	8	5.34	16	2400395
Earthwool	FrameTherm Slab	38						
140	0.038	3.65	1170	570	8	5.34	16	2400392
90	0.038	2.35	1170	570	12	8.00	16	2416701

Full load: 20 pallets







EARTHWOOL LOFT ROLLS





			Prod	uct Specification			
Thickness (mm)	Thermal Cond. (W/mK)	R-value (m² K/W)			Area per roll (m²)	No.Rolls in pallet	Product Code
Earthwool I	oft Roll 40 (Combi	-cut)					
200	0.040	5.00	4.85	1140 (2x570/3x380)	5.53	24	2404169
150	0.040	3.75	7.53	1140 (2x570/3x380)	8.58	24	2404166
100	0.040	2.50	11.25	1140 (2x570/3x380)	12.83	24	2404167
Earthwool I	Loft Roll 44 (Combi	-cut)					
200	0.044	4.50	5.20	1140 (2x570/3x380)	5.93	24	2404157
170	0.044	3.85	7.03	1140 (2x570/3x380)	8.01	24	2404156
150	0.044	3.40	8.05	1140 (2x570/3x380)	9.18	24	2404155
100	0.044	2.25	12.18	1140 (2x570/3x380)	13.89	24	2404154
Earthwool I	Loft Roll 44 Shorter	Lengths (Com	bi-cut)				
200	0.044	4.50	3.40	1140 (2x570/3x380)	3.88	40	244329
170	0.044	3.85	4.30	1140 (2x570/3x380)	4.90	40	244328
150	0.044	3.40	4.90	1140 (2x570/3x380)	5.59	40	244327
100	0.044	2.25	7.28	1140 (2x570/3x380)	8.30	40	244326

Full load: 20 pallets

DESCRIPTION

Earthwool Loft Rolls are a loft insulation product manufactured in a range of thicknesses at 1140mm wide.

Combi-cut has partially cut perforations and has the flexibility to be used between 400mm or 600mm joists or used unsplit.

BENEFITS

- · Long roll lengths to minimise number of rolls required per installation
- Product is lightweight and partially perforated for quick installation
- Designed for use between joists at 400mm or 600mm
- Non-combustible Euroclass A1 Reaction to Fire rating

As used in applications shown on page 4











EARTHWOOL PARTY WALL SLABS

DESCRIPTION

Earthwool Party Wall Slabs provide acoustic and thermal insulation solutions for separating party walls between dwellings. Masonry Party Wall Slab and Timber Frame Party Wall Slab can be used as part of a full fill solution to achieve a zero effective U-value within SAP.

BENEFITS

- Allows a zero effective U-value to be used in SAP calculations
- Quick and easy to install
- Suitable for use in Robust Detail walls
- Non-combustible Euroclass A1 Reaction to Fire rating

As used in applications shown on page 10



See page 11 for suitable Robust Details











	Product Specification												
Thickness (mm)	Installed density (kg/m³)	R-value (m² K/W)	Length (mm)			Slabs per pack	Packs per pallet	Product Code					
Earthwool /	Masonry Party Wal	l Slab											
100	18.00	2.75	1200	455	6.55	12	20	2441353					
75	18.00	2.05	1200	455	8.74	16	20	2441351					
Earthwool 1	Timber Frame Party	Wall Slab											
85	18.00	2.35	1200	600	8.64	12	16	2441340					
60	18.00	1.65	1200	600	11.52	16	16	2441338					

Full load: 20 pallets

EARTHWOOL RAFTER ROLL





	Product Specification											
Thickness (mm)	Thermal Cond. (W/mK)	R-value (m² K/W)	Length (m)	Width (mm)	Area per roll (m²)	No.Rolls in pallet	Product Code					
200	0.036	5.55	3.30	1200	3.96	24	2441269					
100	0.032	3.10	4.00	1200	4.80	24	2402020					
75	0.032	2.30	5.25	1200	6.30	24	2402018					

Full load: 20 pallets

DESCRIPTION

With a thermal conductivity of 0.032 W/mK and 0.036 W/mK, Earthwool Rafter Roll provides very high levels of thermal resistance. It is 1200mm wide and can be easily cut on site and 'friction fitted' to suit rafters at any centres.

BENEFITS

- High level of thermal performance
- Much quicker to install between rafters than rigid foam boards
- Long roll lengths for quick installation
- Non-combustible Euroclass A1 Reaction to Fire rating

As used in applications shown on page 6









The fitter friendly insulation that's also stockist friendly 77



A range designed especially for you

We believe that insulation should be kinder to those who use it most - the installer. That's why following extensive research, we've launched Earthwool OmniFit, the first fitter friendly insulation that's softer and easier to handle and use.

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Of 225 installers surveyed, 89% suggested they would be keen to trial an alternative product to existing flexible slabs and rock mineral wool rolls, if it meant that handling would be easier and the products softer to touch.

Earthwool OmniFit is manufactured with ECOSE® Technology, making it softer to touch and easier to handle.



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Training session being carried out in a merchant branch

I have had great feedback from our contractor and we will definitely be keeping the slab in all branches

Phil (Buttles Builders Merchant)



The results speak for themselves 77
Roger Bisby (Professional Builder Magazine)

Call 01744 766 866 to book your session NOW!











EARTHWOOL OMNIFIT SLAB

DESCRIPTION

Earthwool OmniFit Slab is a multi-purpose, flexible, non-combustible, mineral wool slab, engineered for additional robustness, and specifically designed for installation by friction fitting.

BENEFITS

- Alternative to exisiting flexible slabs
- High level of thermal performance
- Soft to handle and easy to use
- Available in 600mm and 400mm wide variants
- Non-combustible Euroclass A1 Reaction to Fire rating
- Earthwool OmniFit Slab has exceptional acoustic absorption properties and is manufactured with a minimum density of 10kg/m³ for compliance with relevant sound insulation regulations.

As used in applications shown on pages 6,7,12,13 and 14













600mm wide

	Product Specification											
Thickness (mm)	Thermal Cond. (W/mK)	R-value (m² K/W)	Length (mm)	Width (mm)	Slabs per pack	Area per pack (m²)	Packs per pallet	Product Code				
150	0.035	4.25	1200	600	4	2.88	32	587280				
140	0.035	4.00	1200	600	4	2.88	36	474342				
100	0.035	2.85	1200	600	6	4.32	32	474340				
90	0.035	2.55	1200	600	6	4.32	36	474337				
75	0.035	2.10	1200	600	8	5.76	32	587268				
70	0.035	2.00	1200	600	8	5.76	32	474334				
50	0.035	1.40	1200	600	12	8.64	24	474329				

400mm wide

	Product Specification										
Thickness (mm)	Thermal Cond. (W/mK)	R-value (m² K/W)	Length (mm)	Width (mm)	Slabs per pack	Area per pack (m²)	Packs per pallet	Product Code			
140	0.035	4.00	1200	400	4	1.92	48	474318			
100	0.035	2.85	1200	400	6	2.88	42	474314			
50	0.035	1.40	1200	400	12	5.76	36	474293			

Full load: 20 pallets

EARTHWOOL OMNIFIT ROLL











	Product Specification											
Thickness (mm)	Thermal Cond. (W/mK)	R-value (m² K/W)	Length (m)	Width (mm)	Area per roll (m²)	No.Rolls in pallet	Product Code					
200	0.040	5.00	3.40	1200 (2x600/3x400)	4.08	40	474509					
150	0.040	3.75	4.55	1200 (2x600/3x400)	5.46	40	474386					
100	0.040	2.50	6.80	1200 (2x600/3x400)	8.16	40	474381					

Full load: 20 pallets

DESCRIPTION

Earthwool OmniFit Roll is a multi-purpose, flexible, non-combustible, mineral wool roll, and is specifically designed for installation by friction fitting.

BENEFITS

- Superior thermal performance than standard loft rolls
- Also suitable for use in acoustic applications - internal partitions, internal and separating floors
- Soft to handle and easy to use
- Partially perforated (2x600mm or 3x400mm) for use between joists and studs at either 400mm or 600mm centres
- Non-combustible Euroclass A1 Reaction to Fire rating

As used in applications shown on pages 4,13 and 14















EARTHWOOL OMNIFIT STUD

DESCRIPTION

Earthwool OmniFit Stud is a multi-purpose, flexible, non-combustible, mineral wool roll, and is specifically designed for installation by friction fitting.

BENEFITS

- Designed for use between timber or metal stud and rafters
- High level of thermal performance
- Soft to handle and easy to use
- Manufactured 1200mm wide to allow cutting to suit studs and rafters at varying centre dimensions
- Non-combustible Euroclass A1 Reaction to Fire rating

As used in applications shown on pages 6 and 7













			Product S	pecification			
Thickness (mm)	Thermal Cond. (W/mK)	R-value (m² K/W)	Length (m)	Width (mm)	Area per roll (m²)	No.Rolls in pallet	Product Code
220*	0.034	6.45	2.50	1200	3.00	24	416121
180	0.034	5.25	3.00	1200	3.60	24	416113
150	0.034	4.40	3.50	1200	4.20	24	417800
140	0.034	4.10	4.20	1200	5.04	24	474996
100	0.034	2.90	5.20	1200	6.24	24	417796

^{*} Full loads only

Full load: 20 pallets

AWARD WINNING SUPPORT DESIGNED WITH YOU IN MIND

Your needs have helped us to develop our service offering for merchants. We firmly believe that developing strong relationships with our customers is key to an effective supply chain.

To ensure the service to our customers is the best it can possibly be, we have invested heavily in a bespoke and dedicated service for merchants. We are already seeing our customers benefiting.



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Whatever your enquiry, we have a support team on hand to take your call or email.

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- Merchandising support
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- Link-sell opportunities
- Cross-sell opportunities



Marketing and promotional assistance

We have worked with a number of merchants to help promote products with content and joint promotions, which have been proven to increase sales.

- Joint promotions on selected product lines
- Readily available content about our products, to help you to promote them on your website and in your marketing activity;
 - Website content
 - Product descriptions
 - Images
 - Product benefits
 - Electronic literature (potential for co-branding)

Knauf Insulation undertakes regular audits at branches to understand local market issues and opportunities; also keeping a close eye on value opportunities and reporting these on a regular basis.

Their engagement with us is excellent and the products and service levels are outstanding. 77

Nick Lander

Managing Director at h&b Group

TEL: **01744 766866**

kimerchantsupport@knaufinsulation.com

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Manufacturer of the Year

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Supplier of the Year

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Supplier of the Year

(Insulation and Plasterboard)
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- To see how many pallets make up a quarter, half or three quarter load for any product, see the product information section in this quide.
- For lead times and details, see your latest Knauf Insulation Price Guide.



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- Ordering full loads gives you the best possible terms.
- To see how many pallets make up a full load for any product, see the product information section in this guide.
- For lead times and details, see your latest Knauf Insulation Price Guide.



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- You can now order mixed loads of our rock and glass mineral wool products they will even be delivered on one vehicle.
- Orders for mixed loads should be in multiples of 5, 10 or 20 pallets.
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- We can provide a split delivery service on full loads to allow you to order for two branches at the same time, to get the best terms possible (max. 40 miles between branches)
- For lead times, charges and details, see your latest Knauf Insulation Price Guide.



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- We can offer deliveries using several types of specialist vehicle (e.g. moffetts, flatbed vehicles, rigid vehicles and more).
- >>> For lead times, charges and details, please call Customer Service for details.
- There is growing demand for this facility so please contact us well in advance for this method of delivery.



Logistics

- We also provide a service for customers to collect using their own vehicles, where this may be a more suitable option.
- For lead times and details, see your latest Knauf Insulation Price Guide.

KNAUF INSULATION CUSTOMER SERVICE AND TECHNICAL SUPPORT



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Information regarding your orders and details of dispatches can be obtained from Customer Service between the hours of 8.00a.m - 5.30p.m. Monday – Thursday and 8.00a.m - 5.00p.m on Friday. Please contact us on:

Telephone: 01744 766 766

E-mail: sales.uk@knaufinsulation.com



TECHNICAL SUPPORT TEAM

Knauf Insulation offer unparalleled expert advice on all our products and solutions through our in-house Technical Support Team who provide free, expert advice for builders merchants, distributors, stockist's, architects and any customer involved in the construction industry and the wider specification community.

Our Technical Support Team help desk is staffed from 8.30am to 5.00pm Monday to Friday and we will normally respond to faxes and emails within 24 hours.

Contact the Technical Support Team via telephone on 01744 766 666 or email technical.uk@knaufinsulation.com

As well as technical advice, the Technical Support Team can provide a wide range of services including:

- Expert advice and guidance on all parts of the Building Regulations
- Expert advice and guidance on the thermal, acoustic and fire performance of products and applications
- U-value calculations and condensation analysis in accordance with the BBA/TIMSA U-value Competency Scheme
- 2D heat loss calculations to create Psi values and F-factors
- 3D heat loss calculations
- Creation of CAD details
- Creation of NBS clauses
- SAP and RdSAP calculations



Download a QR reader for free from your App Store and then scan the QR for more information.





Products featuring this stamp are included in our Rock & Roll offering.

See page 34 for details.

Knauf Insulation Ltd PO Box 10 Stafford Road St Helens Merseyside WA10 3NS Customer Service (Sales)
Tel: 01744 766 766
Email: sales.uk@knaufinsulation.com
www.knaufinsulation.co.uk

Technical Support Team
Tel: 01744 766 666
Email: technical.uk@knaufinsulation.com

Merchant Support Team Tel: 01744 766 866 Email: kimerchantsupport@knaufinsulation.com

Literature
Tel: 08700 668 660
Email: info.uk@knaufinsulation.com

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