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Agrément Certificate

95/3212

Product Sheet 1 Issue 9

DRITHERM CAVITY SLABS

DRITHERM CAVITY SLABS 32, 34 AND 37

This Agrément Certificate Product Sheet⁽¹⁾ relates to DriTherm⁽²⁾ Cavity Slabs 32, 34 and 37, comprising unfaced glass mineral wool slabs for use as full fill thermal insulation in new external masonry cavity walls, up to 25 metres in height, in domestic and non-domestic buildings. Additional requirements apply for buildings above 12 metres in height. The products are installed during construction.

(1) Hereinafter referred to as 'Certificate'.

(2) DriTherm is a registered trademark.

The assessment includes

Product factors:

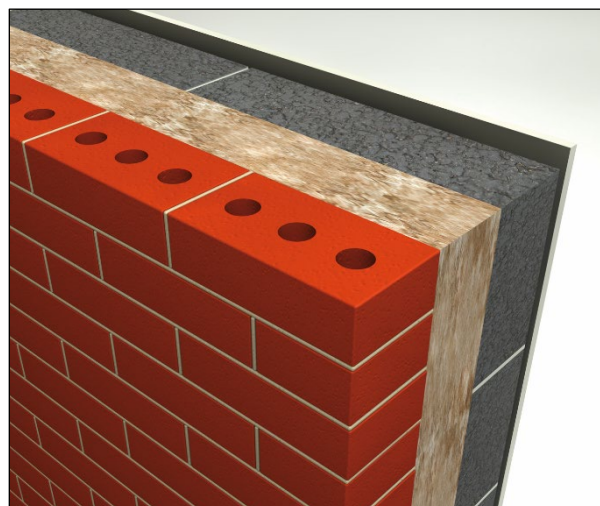
- compliance with Building Regulations
- compliance with additional regulatory or non-regulatory information where applicable
- evaluation against technical specifications
- assessment criteria and technical investigations
- uses and design considerations

Process factors:

- compliance with Scheme requirements
- installation, delivery, handling and storage
- production and quality controls
- maintenance and repair

Ongoing contractual Scheme elements†:

- regular assessment of production
- formal 3-yearly review



KEY FACTORS ASSESSED

- Section 1. Mechanical resistance and stability
- Section 2. Safety in case of fire
- Section 3. Hygiene, health and the environment
- Section 4. Safety and accessibility in use
- Section 5. Protection against noise
- Section 6. Energy economy and heat retention
- Section 7. Sustainable use of natural resources
- Section 8. Durability

The BBA has awarded this Certificate to the company named above for the products described herein. These products have been assessed by the BBA as being fit for their intended use provided they are installed, used and maintained as set out in this Certificate.

On behalf of the British Board of Agrément

Date of Ninth issue: 17 October 2024

Originally certified on 14 February 1996

Hardy Giesler
Chief Executive Officer

This BBA Agrément Certificate is issued under the BBA's Inspection Body accreditation to ISO/IEC 17020. Sections marked with † are not issued under accreditation.

The BBA is a UKAS accredited Inspection Body (No. 4345), Certification Body (No. 0113) and Testing Laboratory (No. 0357).

Readers MUST check that this is the latest issue of this Agrément Certificate by either referring to the BBA website or contacting the BBA directly.

The Certificate should be read in full as it may be misleading to read clauses in isolation.

Any photographs are for illustrative purposes only, do not constitute advice and should not be relied upon.

British Board of Agrément

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SUMMARY OF ASSESSMENT AND COMPLIANCE

This section provides a summary of the assessment conclusions; readers should refer to the later sections of this Certificate for information about the assessments carried out.

Compliance with Regulations

Having assessed the key factors, the opinion of the BBA is that DriTherm Cavity Slabs 32, 34 and 37, if installed, used and maintained in accordance with this Certificate, can satisfy or contribute to satisfying the relevant requirements of the following Building Regulations:



The Building Regulations 2010 (England and Wales) (as amended)

Requirement:	B3(4)	Internal fire spread (structure)
Comment:		The products can contribute to satisfying this Requirement. See section 2 of this Certificate.
Requirement:	B4(1)	External fire spread
Comment:		The products are unrestricted by this Requirement. See section 2 of this Certificate.
Requirement:	C2(a)(b)(c)	Resistance to moisture
Comment:		The products can contribute to satisfying this Requirement. See section 3 of this Certificate.
Requirement:	L1(a)(i)	Conservation of fuel and power
Comment:		The products can contribute to satisfying this Requirement. See section 6 of this Certificate.
Regulation:	7(1)	Materials and workmanship
Comment:		The products are acceptable. See sections 8 and 9 of this Certificate.
Regulation:	7(2)	Materials and workmanship
Comment:		The products are unrestricted by this Regulation. See section 2 of this Certificate.
Regulation:	25B	Nearly zero-energy requirements for new buildings
Regulation:	26	CO₂ emission rates for new buildings
Regulation:	26A	Fabric energy efficiency rates for new dwellings (applicable to England only)
Regulation:	26A	Primary energy rates for new buildings (applicable to Wales only)
Regulation:	26B	Fabric performance values for new dwellings (applicable to Wales only)
Regulation:	26C	Target primary energy rates for new buildings (applicable to England only)
Regulation:	26C	Energy efficiency rating (applicable to Wales only)
Comment:		The products can contribute to satisfying these Regulations. See section 6 of this Certificate.



The Building (Scotland) Regulations 2004 (as amended)

Regulation:	8(1)	Fitness and durability of materials and workmanship
Comment:		The products are acceptable. See sections 8 and 9 of this Certificate.
Regulation:	9	Building standards – construction
Standard:	2.4	Cavities
Comment:		The products can contribute to satisfying this Standard, with reference to clauses 2.4.2 ⁽¹⁾⁽²⁾ , 2.4.4 ⁽¹⁾ and 2.4.6 ⁽²⁾ . See section 2 of this Certificate.

Standard: Comment:	2.6	Spread to neighbouring buildings The products are unrestricted by this Standard, with reference to clauses 2.6.5 ⁽¹⁾ and 2.6.6 ⁽²⁾ . See section 2 of this Certificate.
Standard: Comment:	3.4	Moisture from the ground The products can contribute to satisfying this Standard, with reference to clauses 3.4.1 ⁽¹⁾⁽²⁾ and 3.4.5 ⁽¹⁾⁽²⁾ . See section 3 of this Certificate.
Standard: Comment:	3.10	Precipitation The products can contribute to satisfying this Standard, with reference to clauses 3.10.1 ⁽¹⁾⁽²⁾ and 3.10.3 ⁽¹⁾⁽²⁾ . See section 3 of this Certificate.
Standard: Comment:	3.15	Condensation The products can contribute to satisfying this Standard, with reference to clauses 3.15.1 ⁽¹⁾⁽²⁾ , 3.15.4 ⁽¹⁾⁽²⁾ and 3.15.5 ⁽¹⁾⁽²⁾ . See section 3 of this Certificate.
Standard: Comment:	6.1(b)(c)	Energy demand The products can contribute to satisfying this Standard, with reference to clauses 6.1.1 ⁽¹⁾ and 6.1.2 ⁽²⁾ . See section 6 of this Certificate.
Standard: Comment:	6.2	Building insulation envelope The products can contribute to satisfying this Standard, with reference to clauses 6.2.1 ⁽¹⁾⁽²⁾ , 6.2.3 ⁽¹⁾ , 6.2.4 ⁽²⁾ , 6.2.8 ⁽¹⁾ , 6.2.9 ⁽²⁾ and 6.2.12 ⁽¹⁾ . See section 6 of this Certificate.
Standard: Comment:	7.1(a)(b)	Statement of Sustainability The products can contribute to satisfying the relevant requirements of Regulation 9, Standards 1 to 6, and therefore will contribute to a construction meeting a bronze level of sustainability as defined in this Standard. In addition, the products can contribute to a construction meeting a higher level of sustainability as defined in this Standard, with reference to clauses 7.1.4 ⁽¹⁾ , 7.1.6 ⁽¹⁾⁽²⁾ , 7.1.7 ⁽¹⁾ , 7.1.9 ⁽²⁾ and 7.1.10 ⁽²⁾ . See section 6 of this Certificate.
Regulation: Comment:	12	Building standards – conversion Comments in relation to the products under Regulation 9, Standards 1 to 6, also apply to this Regulation, with reference to clause 0.12.1 ⁽¹⁾⁽²⁾ and Schedule 6 ⁽¹⁾⁽²⁾ .

(1) Technical Handbook (Domestic).

(2) Technical Handbook (Non-Domestic).



The Building Regulations (Northern Ireland) 2012 (as amended)

Regulation: Comment:	23(1)(a)(i) (iii)(b)(i)(ii)	Fitness of materials and workmanship The products are acceptable. See sections 8 and 9 of this Certificate.
Regulation: Comment:	23(2)	Fitness of materials and workmanship The products are unrestricted by this Regulation. See section 2 of this Certificate.
Regulation: Regulation: Comment:	28(a)(b) 29	Resistance to moisture and weather Condensation The products can contribute to satisfying these Regulations. See section 3 of this Certificate.
Regulation: Comment:	35(4)	Internal fire spread – structure The products can contribute to satisfying this Regulation. See section 2 of this Certificate.

Regulation:	36(a)	External fire spread
Comment:		The products are unrestricted by this Regulation. See section 2 of this Certificate.
Regulation:	39(a)(i)	Conservation measures
Regulation:	40(2)	Target carbon dioxide emission rate
Regulation:	43B	Nearly zero-energy requirements for new buildings
Comment:		The products can contribute to satisfying these Regulations. See section 6 of this Certificate.

Additional Information

NHBC Standards 2024

In the opinion of the BBA, DriTherm Cavity Slabs 32, 34 and 37, if installed, used and maintained in accordance with this Certificate, can satisfy or contribute to satisfying the relevant requirements in relation to *NHBC Standards*, Chapter 6.1 *External masonry walls*.

Fulfilment of Requirements

The BBA has judged DriTherm Cavity Slabs 32, 34 and 37 to be satisfactory for use as described in this Certificate. The products have been assessed for use as full fill thermal insulation in new external masonry cavity walls, up to 25 metres in height, in domestic and non-domestic buildings. Additional requirements apply for buildings above 12 metres in height. The products are installed during construction.

ASSESSMENT

Product description and intended use

The Certificate holder provided the following description for the products under assessment. DriTherm Cavity Slabs 32, 34 and 37 consist of layers of resin-bonded, water-repellent-treated glass mineral wool formed into slabs.

The products have the nominal characteristics given in Table 1.

Table 1 Nominal characteristics

Characteristic (unit)	Value
Length (mm)	1200
Width (mm)	455
Thickness (mm)	50 ⁽¹⁾ , 65 ⁽¹⁾ , 75, 85 ⁽²⁾ , 100, 125 and 150

(1) Available for the DriTherm Cavity Slab 37 only.

(2) Available for the DriTherm Cavity Slabs 32 and 37 only.

Ancillary Items

The Certificate holder recommends cavity wall ties to BS EN 845-1 : 2013 as ancillary items for use with the products, but these materials have not been assessed by the BBA and are outside the scope of this Certificate.

Applications

The products are intended for use as full fill thermal insulation in external cavity walls with masonry inner and outer leaves (where masonry includes clay and calcium silicate bricks, concrete blocks, and natural and reconstituted stone blocks). Where natural or reconstituted stone is used, it should be dressed so that the cavity formed is uniform and both faces are parallel.

The products may be installed as multi layers where required.

Product assessment – key factors

The products were assessed for the following key factors, and the outcome of the assessments are shown below. Conclusions relating to Building Regulations apply to the whole of the UK unless otherwise stated.

1 Mechanical resistance and stability

Not applicable.

2 Safety in case of fire

Data were assessed for the following characteristic.

2.1 Reaction to fire

2.1.1 The products were tested for reaction to fire and the classifications achieved are given in Table 2.

Table 2 Reaction to fire classification

Product assessed	Assessment method	Requirement	Result
DriTherm Cavity Slab 32	BS EN 13501-1 : 2007 ⁽¹⁾ BS EN 13501-1 : 2018 ⁽²⁾	Value achieved	A1
DriTherm Cavity Slab 34	BS EN 13501-1 : 2018 ⁽²⁾		
DriTherm Cavity Slab 37	BS EN 13501-1 : 2007 ⁽³⁾ BS EN 13501-1 : 2018 ⁽²⁾		

(1) Exova Warringtonfire, classification report number WF 388511, 7 September 2017, available from the Certificate holder on request.

(2) RISE, classification report number O100741-1193103-1rev1, 15 June 2023, available from the Certificate holder on request.

(3) Exova Warringtonfire, classification report number WF 358667, 10 November 2015, available from the Certificate holder on request.

2.1.2 On the basis of data assessed, the products will be unrestricted in terms of building height and proximity to a relevant boundary under the documents supporting the national Building Regulations.

2.1.3 Designers must refer to the relevant national Building Regulations and guidance for detailed conditions of use, particularly in respect of requirements for substrate fire performance, cavity closers and barriers, fire stopping of service penetrations and combustibility limitations for other materials and components used in the overall wall construction.

3 Hygiene, health and the environment

Data were assessed for the following characteristics.

3.1 Effectiveness against rising damp

3.1.1 The products were tested for short term water absorption by partial immersion and the result is given in Table 3.

Table 3 Short term water absorption by partial immersion

Product assessed	Assessment method	Requirement	Result
DriTherm Cavity Slab 32	BS EN 1609 : 2013	$\leq 1.0 \text{ kg}\cdot\text{m}^{-2}$	Pass
DriTherm Cavity Slab 34			
DriTherm Cavity Slab 37			

3.1.2 On the basis of data assessed, the products may be used in situations where they bridge the damp-proof course (DPC) in walls; dampness from the ground will not pass through to the inner leaf provided the wall is detailed in accordance with the requirements and provisions of the national Building Regulations.

3.2 Weathertightness

3.2.1 A rain penetration test was carried out and the result is given in Table 4.

Table 4 Rain penetration test

Product assessed	Assessment method	Requirement	Result
DriTherm Cavity Slab 32	BBA test method	No water penetration to inner leaf	Pass
DriTherm Cavity Slab 34			
DriTherm Cavity Slab 37			

3.2.2 On the basis of data assessed, constructions incorporating the products, and built in accordance with the Standards and requirements listed in section 9 of this Certificate, will resist the transfer of precipitation to the inner leaf and satisfy the requirements of the national Building Regulations.

3.3 Water vapour permeability

3.3.1 The products were assessed for water vapour resistivity and the result is given in Table 5.

Table 5 Water vapour resistivity

Product assessed	Assessment method	Requirement	Result
DriTherm Cavity Slab 32	BS EN ISO 10456 : 2007	Declared value	5 MN·s·g ⁻¹ ·m ⁻¹
DriTherm Cavity Slab 34			
DriTherm Cavity Slab 37			

3.3.2 For the purposes of assessing the risk of condensation, the water vapour resistivity value may be taken as stated in Table 5.

4 Safety and accessibility in use

Not applicable.

5 Protection against noise

Not applicable.

6 Energy economy and heat retention

Data were assessed for the following characteristics.

6.1 Thermal conductivity

The products were tested for thermal conductivity and the results are given in Table 6.

Table 6 Thermal conductivity

Product assessed	Assessment method	Requirement	Result
DriTherm Cavity Slab 32	BS EN 13162 : 2012	Declared value (λ_D)	0.032 W·m ⁻¹ ·K ⁻¹
DriTherm Cavity Slab 34			0.034 W·m ⁻¹ ·K ⁻¹
DriTherm Cavity Slab 37			0.037 W·m ⁻¹ ·K ⁻¹

6.2 Thermal performance

6.2.1 The U value of a completed wall construction will depend on the insulation conductivity, thickness, its location, the number and type of fixings, the wall structure, and its internal finish. Example U values are given in Table 7.

Table 7 Example U Values⁽¹⁾

Target U value (W·m ⁻¹ ·K ⁻¹)	Insulation thickness (mm) ⁽²⁾					
	13 mm dense plaster 100 mm dense block ⁽³⁾			Plasterboard on dabs 100 mm AAC block ⁽⁴⁾		
	DriTherm Cavity Slab 32	DriTherm Cavity Slab 34	DriTherm Cavity Slab 37	DriTherm Cavity Slab 32	DriTherm Cavity Slab 34	DriTherm Cavity Slab 37
0.13	225 ⁽⁵⁾	250 ⁽⁵⁾	275 ⁽⁵⁾	210 ⁽⁵⁾	225 ⁽⁵⁾	235 ⁽⁵⁾
0.15	200 ⁽⁵⁾	225 ⁽⁵⁾	225 ⁽⁵⁾	175 ⁽⁵⁾	200 ⁽⁵⁾	200 ⁽⁵⁾
0.17	175 ⁽⁵⁾	200 ⁽⁵⁾	200 ⁽⁵⁾	150	175 ⁽⁵⁾	175 ⁽⁵⁾
0.18	160 ⁽⁵⁾	175 ⁽⁵⁾	185 ⁽⁵⁾	150	150	160 ⁽⁵⁾
0.21	150	150	160 ⁽⁵⁾	125	125	135 ⁽⁵⁾
0.26	125	125	125	85	100	115 ⁽⁵⁾
0.28	100	125	115 ⁽⁵⁾	85	100	100
0.30	100	100	115 ⁽⁵⁾	75	75	85
0.35	85	100	100	75	75	65

(1) The U value calculations are based on the following:

- wall ties: stainless steel ($\lambda = 17 \text{ W} \cdot \text{m}^{-1} \cdot \text{K}^{-1}$), 2.5 per m², 12.5 mm² cross-section.
- 102.5 mm brick ($\lambda = 0.77 \text{ W} \cdot \text{m}^{-1} \cdot \text{K}^{-1}$) bridged by mortar (17.3%, $\lambda = 0.94 \text{ W} \cdot \text{m}^{-1} \cdot \text{K}^{-1}$).

(2) Based upon incremental insulation thickness range in Table 1.

(3) 100 mm dense block ($\lambda = 1.13 \text{ W} \cdot \text{m}^{-1} \cdot \text{K}^{-1}$) bridged by mortar (6.6%, $\lambda = 0.88 \text{ W} \cdot \text{m}^{-1} \cdot \text{K}^{-1}$) and 13 mm dense plaster ($\lambda = 0.57 \text{ W} \cdot \text{m}^{-1} \cdot \text{K}^{-1}$).

(4) 100 mm AAC block ($\lambda = 0.12 \text{ W} \cdot \text{m}^{-1} \cdot \text{K}^{-1}$) bridged by mortar (6.6%, $\lambda = 0.88 \text{ W} \cdot \text{m}^{-1} \cdot \text{K}^{-1}$) and 12.5 mm plasterboard ($\lambda = 0.25 \text{ W} \cdot \text{m}^{-1} \cdot \text{K}^{-1}$) on 15 mm air cavity ($R = 0.17 \text{ m}^2 \cdot \text{K} \cdot \text{W}^{-1}$) bridged by adhesive dabs (20%, $\lambda = 0.43 \text{ W} \cdot \text{m}^{-1} \cdot \text{K}^{-1}$).

(5) Thickness achieved with two layers of insulation.

6.2.2 On the basis of data assessed, the products can contribute towards a construction satisfying the national Building Regulations in respect of energy economy and heat retention.

7 Sustainable use of natural resources

Not applicable.

8 Durability

8.1 The potential mechanisms for degradation and the known performance characteristics of the materials in these products were assessed.

8.2 Specific test data were assessed as given in Table 8.

Table 8 Dimensional stability

Product assessed	Assessment method	Requirement	Result
DriTherm Cavity Slab 32	BS EN 1604 : 2013 (70°C and 90% RH for 48 hours)	Length, width and reduction in thickness $\leq 1\%$ change	Pass
DriTherm Cavity Slab 34			
DriTherm Cavity Slab 37			

8.3 Service life

Under normal service conditions, the products will have a life equivalent to the structure in which they are incorporated, provided they are designed, installed, and maintained in accordance with this Certificate and the Certificate holder's instructions.

Information provided by the Certificate holder was assessed for the following factors.

9 Design, installation, workmanship and maintenance

9.1 Design

9.1.1 The design process was assessed, and the following requirements apply in order to satisfy the performance assessed in this Certificate.

9.1.2 Buildings subject to the national Building Regulations must be constructed in accordance with the relevant recommendations of:

- BS 5250 : 2021
- BS 8000-3 : 2020
- BS EN 845-1 : 2013
- BS EN 1996-1-1 : 2005 and its UK National Annex
- BS EN 1996-1-2 : 2005 and its UK National Annex
- BS EN 1996-2 : 2006 and its UK National Annex
- BS EN 1996-3 : 2006 and its UK National Annex.

9.1.3 As with other forms of cavity wall insulation, where buildings need to comply with *NHBC Standards 2024*, specifiers should observe the requirements of that document.

9.1.4 Cavity wall ties and, if required, any additional ties to BS EN 845-1 : 2013 must be used for structural stability in accordance with the principles of BS EN 1996-1-1 : 2005, BS EN 1996-2 : 2006 and BS EN 1996-3 : 2006, and their UK National Annexes.

9.1.5 Care must be taken in the overall design and construction of walls incorporating the products to ensure the provision of appropriate:

- cavity trays and DPCs
- cavity barriers and fire stopping
- resistance to the ingress of precipitation, moisture and dangerous gases from the ground
- resistance to sound transmission when flanking separating walls and floors.

9.1.6 The following design conditions must be ensured:

- the insulation completely fills the cavity
- the insulation thickness remains constant where possible. Should any change in vertical thickness occur, a horizontal damp-proof cavity tray should separate each thickness change
- a minimum thickness of 50 mm is maintained where possible. Where, for structural reasons, the insulation thickness is reduced, eg by the intrusion of ring beams, a minimum thickness of 25 mm insulation should be maintained and the manufacturer's advice on fixing and weatherproofing sought.

9.1.7 Where the walls of a building are between 12 and 25 m high, the following requirements also apply:

- from ground level, the maximum height of the continuous cavity walls must not exceed 12 m; above 12 m, the maximum height of the continuous cavity walls must not exceed 7 m. In both cases, breaks should be in the form of continuous horizontal cavity trays and weepholes discharging to the outside
- the area to be insulated must not be an infill panel in a framed structure
- the Certificate holder, in association with the architect, must carry out a detailed programme of assessment of the project, including an examination of the quality of installation as work progresses. Above average site supervision is recommended during installation.

9.1.8 This Certificate covers the use of the products in any exposure zone. However, this does not preclude the need to apply an external render coat or other suitable finish in severe exposure zones where such application would be normal practice.

9.1.9 Window and door opening reveals must be constructed incorporating a cavity barrier/closer/DPC, as required.

9.1.10 The detailed provisions given in the documents supporting the national Building Regulations for when the products are installed in close proximity to certain flue pipes and/or heat-producing appliances must be followed.

9.1.11 Calculations of the thermal transmittance (U value) of a wall must be carried out in accordance with BS EN ISO 6946 : 2017 and BRE Report BR 443 : 2019.

9.1.12 Care must be taken in the overall design and construction of junctions with other elements and openings to minimise thermal bridges and air infiltration. Detailed guidance can be found in the documents supporting the national Building Regulations.

Interstitial condensation

9.1.13 Walls will adequately limit the risk of interstitial condensation when they are designed and constructed in accordance with BS 5250 : 2021.

9.1.14 If the products are to be used in the external walls of rooms expected to have high humidity, care must be taken to provide adequate permanent ventilation to avoid possible problems from the formation of interstitial condensation.

Surface condensation

9.1.15 In England and Wales, walls will adequately limit the risk of surface condensation when the thermal transmittance (U value) does not exceed $0.7 \text{ W} \cdot \text{m}^{-2} \cdot \text{K}^{-1}$ at any point, and the junctions with other elements are designed in accordance with the guidance referred to in section 9.1.12 of this Certificate.

9.1.16 For buildings in Scotland, wall constructions will be acceptable when the thermal transmittance (U value) does not exceed $1.2 \text{ W} \cdot \text{m}^{-2} \cdot \text{K}^{-1}$ at any point, and the junctions with other elements are designed in accordance with the guidance referred to in BS 5250 : 2021. Further guidance may be obtained from BRE BR 262 : 2002 and section 9.1.12 of this Certificate.

9.2 Installation

9.2.1 Installation instructions provided by the Certificate holder were assessed and judged to be appropriate and adequate.

9.2.2 Installation must be carried out in accordance with this Certificate and the Certificate holder's instructions. A summary of instructions and guidance are provided in Annex A of this Certificate.

9.2.3 The external leaf must be constructed ahead of the internal leaf so that any mortar protruding into the cavity space from the back of the external leaf can be cleaned off before installing the products. Slabs must not be pushed into a completed cavity.

9.2.4 Vertical joints in the slabs must be staggered and all joints tightly butted. Where protrusions occur in the cavity, the slabs must be carefully cut to fit.

9.2.5 If installation of the slabs is terminated below the highest level of the wall, the top edge of the insulation must be protected by a cavity tray and alternate perpend of the masonry outer leaf joints raked out, to provide adequate drainage of water from the tray.

9.2.6 In all situations, it is particularly important to ensure during installation that:

- installation is carried out to the highest level on each wall, or the top edge of the insulation is protected by a cavity tray
- cavity trays are used with appropriate stop ends and weepholes at lintel level
- cavity battens and/or boards are used during construction to prevent bridging by mortar droppings

- wall ties are installed correctly and are thoroughly clean
- excess mortar is cleaned from the cavity face of the leading leaf and any debris removed from the cavity
- mortar droppings are cleaned from the exposed edges of installed slabs
- insulation slabs are properly installed, and butt jointed
- the DPC at ground level does not project into the cavity as it can form a trap for mortar bridging
- raked or recessed mortar joints are avoided in very severe exposure areas.

9.2.7 Partially completed walls must be protected from inclement weather (wind, rain and snow) and covered at the end of a day's work.

9.2.8 All installations, particularly interrupted work, must conform to BS EN 1996-2 : 2006, Sections 3.2 *Acceptance, handling and storage of materials* and 3.6 *Curing and protective procedures during execution*.

9.3 Workmanship

Practicability of installation was assessed by the BBA, on the basis of the Certificate holder's information. To achieve the performance described in this Certificate, installation of the products must be carried out by a competent general builder, or a contractor, experienced with these types of products.

9.4 Maintenance and repair

As the products are contained within the wall cavity and have suitable durability, maintenance is not required.

10 Manufacture

10.1 The production processes for the products have been assessed, and provide assurance that the quality controls are satisfactory according to the following factors:

10.1.1 The manufacturer has provided documented information on the materials, processes, testing and control factors.

10.1.2 The quality control operated over batches of incoming materials has been assessed and deemed appropriate and adequate.

10.1.3 The quality control procedures and product testing to be undertaken have been assessed and deemed appropriate and adequate.

10.1.4 The process for management of non-conformities has been assessed and deemed appropriate and adequate.

10.1.5 An audit of each production location was undertaken, and it was confirmed that the production process was in accordance with the documented process and that the equipment has been properly tested and calibrated.

† 10.2 The BBA has undertaken to carry out the above measures on a regular basis through a surveillance process, to verify that the specifications and quality control operated by the manufacturer are being maintained.

11 Delivery and site handling

11.1 The Certificate holder stated that the products are delivered to site in polythene-wrapped packs bearing a label including the Certificate holder's name, slab dimensions and the BBA logo incorporating the number of this Certificate.

11.2 Delivery and site handling must be performed in accordance with the Certificate holder's instructions and this Certificate, including the following:

11.2.1 The products must be protected from prolonged exposure to sunlight, and stored dry, flat and raised above ground level (to avoid contact with ground moisture). Where possible, packs should be stored inside. If stored outside, they must be under cover or protected with opaque polythene sheeting.

11.2.2 It is recommended that dust masks, gloves and long-sleeved clothing are worn during cutting and handling.

11.2.3 Damaged, contaminated or wet products must not be used.

ANNEX A – SUPPLEMENTARY INFORMATION †

Supporting information in this Annex is relevant to the products but has not formed part of the material assessed for the Certificate.

Construction (Design and Management) Regulations 2015

Construction (Design and Management) Regulations (Northern Ireland) 2016

Information in this Certificate may assist the client, designer (including Principal Designer) and contractor (including Principal Contractor) to address their obligations under these Regulations.

CE marking

The Certificate holder has taken the responsibility of CE marking the products, in accordance with harmonised European Standard EN 13162 : 2012.

Management Systems Certification for production

The management system of the manufacturer has been assessed and registered as meeting the requirements of ISO 9001 : 2015, ISO 14001 : 2015, ISO 45001 : 2018 and ISO 50001 : 2018 by TÜV Nord (Certificates 44100190742, 44104190742, 44126190742 and 44764190742 respectively).

Additional information on installation

Installation must be in accordance with the Certificate holder's instructions and this Certificate. A summary of precautions and the procedure is provided below:

General

A.1 The Certificate holder will provide on-site demonstrations on request, to ensure correct installation from the outset.

A.2 Adequate supervision of the installation should be maintained, and the Certificate holder must have the right of access to the site to ensure correct installation.

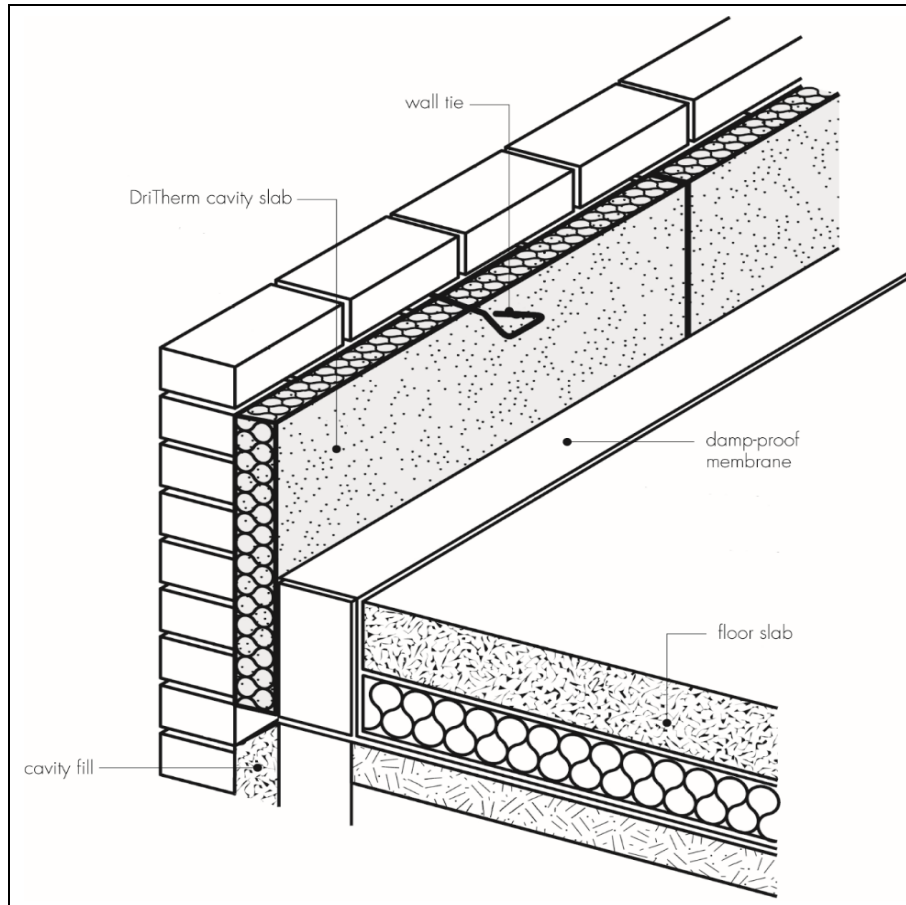
Procedure

A.3 Walls are constructed in a conventional manner, with the first row of wall ties where the insulation is to begin, but not on the DPC, and at approximately 600 mm horizontal spacing. The first run of slabs may commence below the DPC level to provide some edge insulation for the floor (see Figure 1).

A.4 A section of the wall leaf is built up to a course above the next row of wall ties, which are placed at the usual spacing of 450 mm vertically and not more than 900 mm horizontally.

A.5 The slabs are compressed slightly and placed between the upper and lower wall ties to form a closely butt-jointed run (see Figure 1).

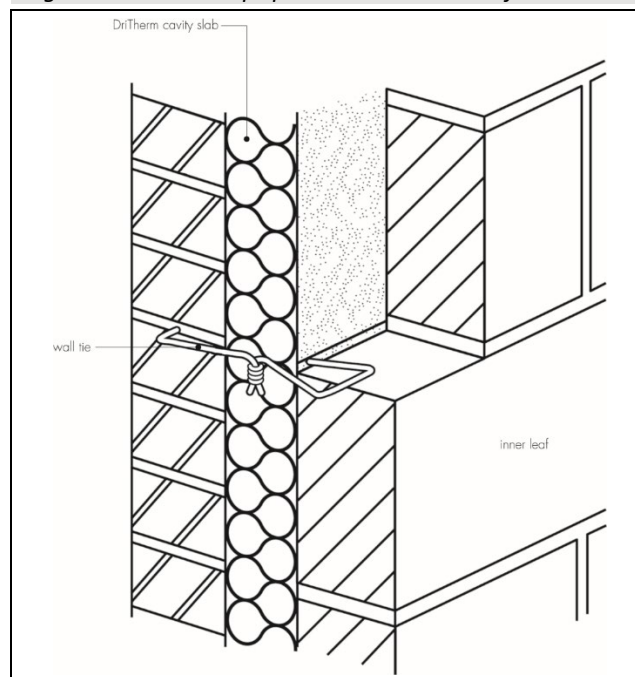
Figure 1 Building-in the first row of slabs



A.6 The drip on each of the upper wall ties must be inserted into the top of the slabs and positioned to shed water away from the inner leaf (see Figure 2).

A.7 The other leaf is built up to the same level as the slabs, with its inner face in contact with the slabs (see Figure 2).

Figure 2 Wall tie drips positioned in centre of slabs

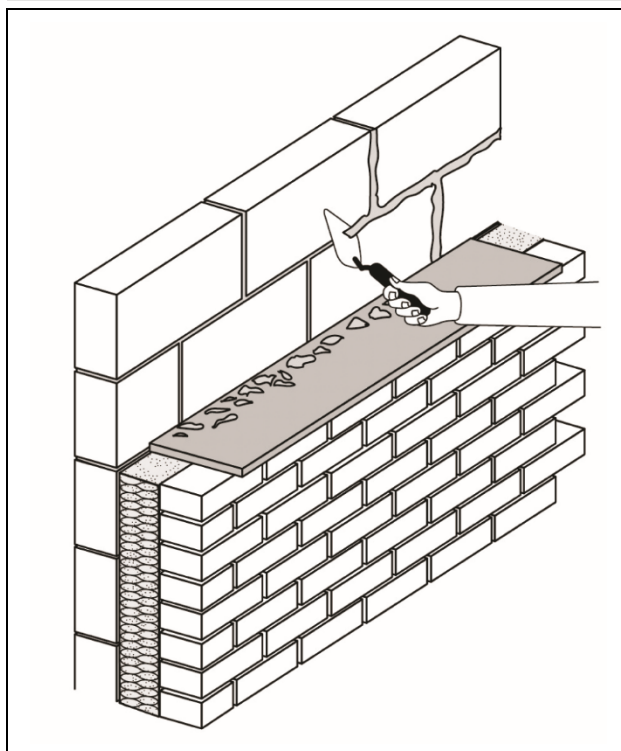


A.8 Successive sections of the wall, incorporating wall ties, are constructed and the insulation slabs installed.

Mortar droppings

A.9 After each section of the leading leaf is built, excess mortar must be removed from the cavity face and mortar droppings cleaned from exposed edges of the installed slabs before installation of the next run of the product. Use of a board is recommended to protect slab edges and make cleaning easier (see Figure 3).

Figure 3 Removal of excess mortar



Corners

A.10 It is recommended that 50 to 75 mm thick slabs are bent around corners. Thicker slabs must be close-butted to avoid cold bridges.

Wall openings

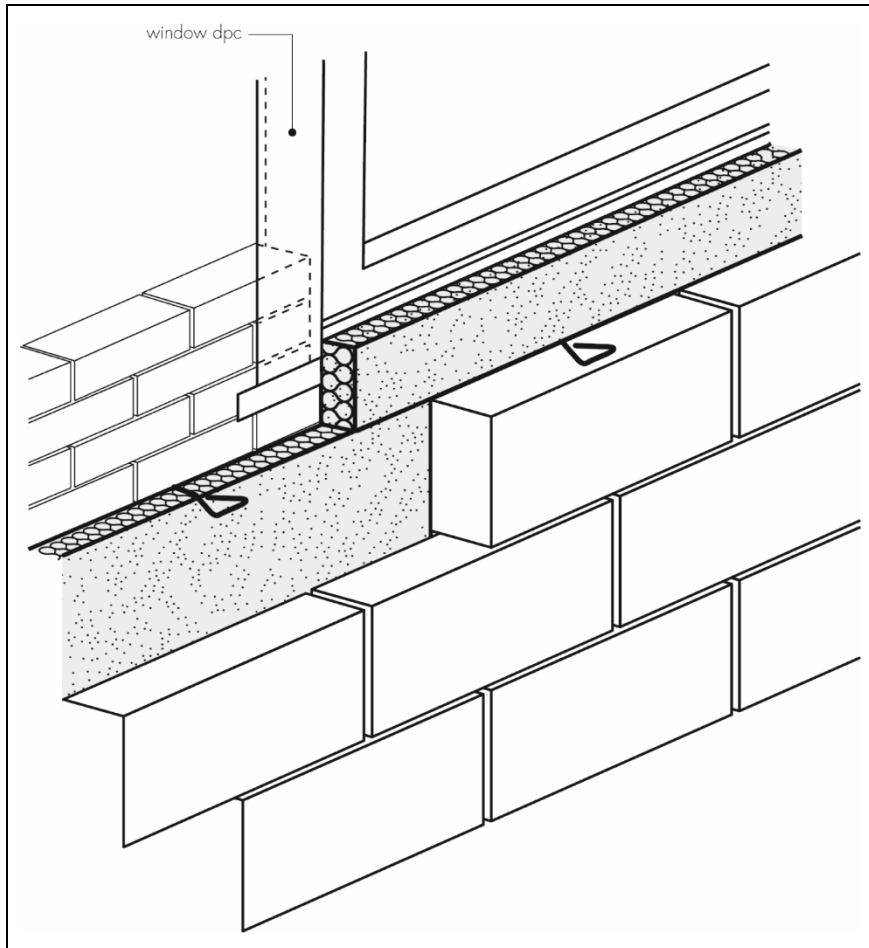
A.11 Where openings such as doors and windows are in proximity, it is recommended that a continuous lintel is used. Individual lintels must have stop-ends.

Cut pieces

A.12 The slabs can be cut with a sharp knife or a fine-toothed saw to fit features such as windows, doors, apertures and air bricks.

A.13 It is essential that cut pieces completely fill the spaces for which they are intended, and no gaps are left in the insulation (see Figure 4).

Figure 4 Use of cut pieces in/around gaps



A.14 Small pieces must be fitted with the fibre layer parallel to the plane of the wall.

Multi layers

A.15 The installation of multi-layer insulation (see Table 7) is identical to the single-layer insulation, but the vertical joints in the second layer must not be coincident with those in the first layer.

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