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BBA APPROVAL INSPECTION TESTING CERTIFICATION
TECHNICAL APPROVALS FOR CONSTRUCTION

Agrément Certificate
11/4857
Product Sheet 1

SUPAFIL

KNAUF INSULATION SUPAFIL 34 CAVITY WALL INSULATION

PRODUCT SCOPE AND SUMMARY OF CERTIFICATE

This Certificate relates to Knauf Insulation Supafil 34 Cavity Wall Insulation, a glass mineral wool material injected in loose form, for use in masonry walls up to and including 12 m in height, with nominal cavity widths not less than 90 mm, in new domestic and non-domestic buildings. The product may also be used in buildings over 12 m in height where a height restriction waiver has been issued by the Certificate holder.

AGRÉMENT CERTIFICATION INCLUDES:

- factors relating to compliance with Building Regulations where applicable
- factors relating to additional non-regulatory information where applicable
- independently verified technical specification
- assessment criteria and technical investigations
- design considerations
- installation guidance
- regular surveillance of production
- formal three-yearly review.

KEY FACTORS ASSESSED

Practicability of installation — the product must only be installed by trained and approved operators (see section 4).

Thermal performance — the product has a thermal conductivity ($\lambda_{90/90}$ *value*) of 0.034 $W \cdot m^{-1} \cdot K^{-1}$ (see section 5).

Rain penetration — the product will resist the transfer of precipitation to the inner leaf via the insulation (see section 6).

Condensation — the product will contribute to limiting the risk of condensation (see section 7).

Behaviour in relation to fire — the product is classified as non-combustible (see section 8).

Durability — the product is durable, rot-proof, water resistant and sufficiently stable to remain effective as an insulation for the life of the building (see section 10).

The BBA has awarded this Agrément Certificate to the company named above for the product described herein. The product has been assessed by the BBA as being fit for its intended use provided it is installed, used and maintained as set out in this Certificate.

On behalf of the British Board of Agrément

Date of First issue: 28 November 2011

Sean Moriarty
Head of Approvals — Physics

Greg Cooper
Chief Executive

Certificate amended on 24 February 2012 to update section 3.

The BBA is a UKAS accredited certification body — Number 113. The schedule of the current scope of accreditation for product certification is available in pdf format via the UKAS link on the BBA website at www.bbacerts.co.uk

Readers are advised to check the validity and latest issue number of this Agrément Certificate by either referring to the BBA website or contacting the BBA direct.

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Regulations

In the opinion of the BBA, Knauf Insulation Supafil 34 Cavity Wall Insulation, if used in accordance with the provisions of this Certificate, will meet or contribute to meeting the relevant requirements of the following Building Regulations:

The Building Regulations 2010 (England and Wales)

Requirement:	**B3(4)**	**Internal fire spread (structure)**
Comment:		The product is classified as non-combustible and therefore meets this Requirement and may be used in buildings of any purpose group. See sections 8.2 and 8.3 of this Certificate.
Requirement:	**C2(a)**	**Resistance to moisture**
Comment:		The product does not absorb water by capillary action and may therefore be used in situations where it bridges the damp-proof course (dpc) of the inner and outer leaf. See section 6.1 of this Certificate.
Requirement:	**C2(b)**	**Resistance to moisture**
Comment:		Tests by the BBA indicate that a wall incorporating the product can resist rain penetration and satisfy this Requirement. See sections 3.5, 6.1 and 6.2 of this Certificate.
Requirement:	**C2(c)**	**Resistance to moisture**
Comment:		The product can contribute to satisfying this condensation Requirement. See sections 7.1 and 7.3 of this Certificate.
Requirement:	**L1(a)(i)**	**Conservation of fuel and power**
Comment:		The product can contribute to meeting this Requirement. See sections 5.3 and 5.4 of this Certificate.
Requirement:	**Regulation 7**	**Materials and workmanship**
Comment:		The product is an acceptable material. See section 10 and the *Installation* part of this Certificate.

The Building (Scotland) Regulations 2004 (as amended)

Regulation:	**8(1)**	**Fitness and durability of materials and workmanship**
Comment:		The product can contribute to a construction satisfying this Regulation. See section 10 and the *Installation* part of this Certificate.
Regulation:	**9**	**Building standards — construction**
Standard:	2.4	Cavities
Comment:		Cavity barriers are not required provided all of the cavity is filled, with reference to clauses 2.4.1[1][2] and 2.4.2[1][2]. See section 8.5 of this Certificate.
Standard:	2.6	Spread to neighbouring buildings
Comment:		The product is classified as non-combustible and may be used in domestic and non-domestic buildings, with reference to clauses 2.6.5[1] and 2.6.6[2]. See sections 8.2 and 8.3 of this Certificate.
Standard:	3.4	Moisture from the ground
Comment:		The product can contribute to a construction satisfying this Standard, with reference to clause 3.4.1[1][2]. The product can be used in situations where it bridges the dpc of the inner and outer leaf. See section 6.1 of this Certificate.
Standard:	3.10	Precipitation
Comment:		The product will resist water transfer and may contribute to a wall satisfying this Standard, with reference to clause 3.10.1[1][2] provided it complies with the conditions set out in sections 3.5, 6.1 and 6.2 of this Certificate.
Standard:	3.15	Condensation
Comment:		The product can satisfy, or 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 sections 7.2 and 7.3 of this Certificate.
Standard:	6.1(b)	Carbon dioxide emissions
Standard:	6.2	Building insulation envelope
Comment:		The product can contribute to satisfying clauses, or parts of, 6.1.6[1], 6.2.1[1][2], 6.2.3[1], 6.2.4[2], 6.2.5[2], 6.2.9[1], 6.2.10[1], 6.2.11[1][2], 6.2.12[2] and 6.2.13[1][2] of these Standards. See sections 5.3 and 5.4 of this Certificate.
Standard:	7.1(a)(b)	Statement of sustainability
Comment:		The product can contribute to meeting 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 product can contribute to a construction meeting a higher level of sustainability as defined in this Standard, with reference to clauses 7.1.4[1][2] Aspects 1[1][2] and 2[1], 7.1.6[1][2] Aspects 1[1][2] and 2[1] and 7.1.7[1][2] Aspect 1[1][2]. See section 5.3 of this Certificate.

(1) Technical Handbook (Domestic).
(2) Technical Handbook (Non-Domestic).

The Building Regulations (Northern Ireland) 2000 (as amended)

Regulation:	**B2**	**Fitness of materials and workmanship**
Comment:		The product is an acceptable material. See section 10 and the *Installation* part of this Certificate.
Regulation:	**C4(a)**	**Resistance to ground moisture and weather**
Comment:		The product does not absorb water by capillary action and may therefore be used in situations where it bridges the dpc of the inner and outer leaf. See section 6.1 of this Certificate.

Regulation:	C4(b)	Resistance to ground moisture and weather
Comment:		Walls incorporating the product can satisfy this Regulation. See sections 3.5, 6.1 and 6.2 of this Certificate.
Regulation:	C5	Condensation
Comment:		The product will contribute to meeting this Regulation. See section 7.3 of this Certificate.
Regulation:	E4(4)	Internal fire spread — Structure
Comment:		The product is classified as non-combustible and may be used in buildings of any purpose group. See sections 8.2 and 8.3 of this Certificate.
Regulation:	F2(a)(i)	Conservation measures
Regulation:	F3(2)	Target carbon dioxide Emissions Rate
Comment:		The product can contribute to satisfying these Regulations. See sections 5.3 and 5.4 of this Certificate.

Construction (Design and Management) Regulations 2007

Construction (Design and Management) Regulations (Northern Ireland) 2007

Information in this Certificate may assist the client, CDM co-ordinator, designer and contractors to address their obligations under these Regulations.

See sections: 2 *Delivery and site handling* (2.1) and 12 *Site preparation* (12.2) of this Certificate.

Additional Information

NHBC Standards 2011

NHBC accepts the use of Knauf Insulation Supafil 34 Cavity Wall Insulation, when installed and used in accordance with this Certificate, in relation to *NHBC Standards*, Chapter 6.1 *External masonry walls*.

Technical Specification

1 Description

1.1 Knauf Insulation Supafil 34 Cavity Wall Insulation consists of granulated glass mineral wool fibres, treated with an inert water repellent during manufacture and complies with the requirements of BS EN 14064-1 : 2010.

1.2 The length of the fibres and degree of granulation are subject to regular quality control checks by the manufacturer.

1.3 The target mean density of this product when installed is 25 $kg \cdot m^{-3}$ over the entire installation. Individual areas within the wall must not have an absolute density variation of more than ±5 $kg \cdot m^{-3}$ from the target mean density when measured over an area of 0.5 m^2.

2 Delivery and site handling

2.1 The product is delivered to site in polythene wrapped bales weighing approximately 16 kg, which should not be opened until required for use. The bales are marked with the BBA identification mark incorporating the number of this Certificate.

2.2 It is essential that the product is stored such that it is raised off the ground, is inside or under cover on a flat, dry, level surface in a well-ventilated area. The product must be protected from rain, snow and prolonged exposure to sunlight. If the product has been allowed to get wet, or is damaged, it must not be used. Nothing should be stored on top of product.

2.3 The product must not be exposed to a naked flame or other ignition sources. The product must not be exposed to solvents or other chemicals.

Assessment and Technical Investigations

The following is a summary of the assessment and technical investigations carried out on Knauf Insulation Supafil 34 Cavity Wall Insulation

Design Considerations

3 General

3.1 Knauf Insulation Supafil 34 Cavity Wall Insulation, is effective in reducing the thermal transmittance (U value) of external cavity walls, with masonry inner and outer leaves (where masonry includes clay and calcium silicate bricks, concrete blocks, natural and reconstituted stone blocks) and is blown into the cavity from the internal leaf only. It is essential that such walls are designed and constructed to incorporate the precautions given in this Certificate to prevent moisture penetration.

3.2 This Certificate covers the use of the products in any exposure zone, subject to the conditions in sections 3.3 to 3.8 being met.

3.3 The following design conditions are particularly important to reduce the risk of water penetration:

- the cavity width to be filled must be a nominal minimum of 90 mm
- raked or recessed mortar joints must not be used.

Partial filling

3.4 Whenever practicable, all of the cavity space from ground level to the roof or gable copings should be filled.

Partial filling is allowed only:

- when separately insulating semi-detached or terraced properties. The cavity barrier used for this purpose is retained in the cavity and must be of a type approved by the BBA. Further details are available from the BBA or the approved installer
- up to the underside of a horizontal boundary, other than the roof, where that horizontal boundary is protected by a cavity tray or similar waterproof barrier
- where filling is carried out above a horizontal boundary
- when treating properties where the wall to be insulated is below a waterproof cladding (eg tile hung) and this cladding either extends up to the roof or is protected at the top by other means (eg window sills).

3.5 New buildings subject to the national Building Regulations should be constructed in accordance with the relevant recommendations of:

- BS 5628-3 : 2005, with particular reference to Clause 5.5 *Exclusion of water*
- BS 8000-3 : 2001
- BS EN 1996-1-1 : 2005, BS EN 1996-1- 2 : 2005, BS EN 1996-2 : 2006 and BS EN 1996-3 : 2006 and their UK National Annexes.

3.6 Other new buildings not subject to regulatory requirements should also be built in accordance with the Standards identified in section 3.5.

3.7 As with any other form of cavity wall insulation, where buildings need to comply with *NHBC Standards* 2011, specifiers should observe the requirements of that document.

3.8 In a new building where the product is to be installed:

- cavity battens or boards must be used to reduce the amount of mortar droppings left in the cavity
- injection of the product is to be left until the cavity is sealed from the weather, ie the roof is in place and the window and door openings are sealed.

4 Practicability of installation

The product should only be installed by installers who have been trained and approved by the Certificate holder (see section 13).

5 Thermal performance

5.1 Calculations of the thermal transmittance (U value) of specific cavity wall constructions should be carried out in accordance with BS EN ISO 6946 : 2007 and BRE Report (BR 443 : 2006) *Conventions for U-value calculations*, using the declared thermal conductivity ($\lambda_{90/90}$ *value*) of 0.034 $W \cdot m^{-1} \cdot K^{-1}$ for the cavity insulation.

5.2 The U value of a typical brick and block cavity wall construction will depend on the cavity width and the insulating value of the internal block leaf and finish. Example U values are given in Table 1.

Table 1 Example cavity wall U values[1] — New buildings

U value requirement ($W \cdot m^{-2} \cdot K^{-1}$)	Cavity width/insulation thickness (mm)	
	13 mm dense plaster 100 mm dense block[2]	Plasterboard on dabs 100 mm AAC block[3]
0.19	165	140
0.25	120	95
0.26	115	90
0.27	110	
0.30	100	

(1) Assumes fixings correction ΔU_f <3% of nominal U value and 102 mm thick brick outer leaf.

(2) Block and plaster thermal conductivity 1.13 $W \cdot m^{-1} \cdot K^{-1}$ and 0.57 $W \cdot m^{-1} \cdot K^{-1}$ respectively.

(3) Block and mortar thermal conductivity 0.12 $W \cdot m^{-1} \cdot K^{-1}$ and 0.88 $W \cdot m^{-1} \cdot K^{-1}$ respectively.

5.3 When considering insulation requirements, designers should refer to the detailed guidance contained in the documents supporting the national Building Regulations. The U values shown in Table 1 indicate that the product can enable a wall to achieve typical design U values referred to in those supporting documents.

5.4 The product can maintain, or contribute to maintaining, continuity of thermal insulation at junctions between elements and openings. For Accredited Construction Details the corresponding psi values in BRE Information Paper IP 1/06 *Assessing the effects of thermal bridging at junctions and around openings*, Table 3 may be used in carbon emission calculations in Scotland and Northern Ireland. Detailed guidance for other junctions and on limiting heat loss by air infiltration can be found in:

England and Wales — Approved Documents to Part L and for new thermal elements to existing buildings, Accredited Construction Details (version 1.0). See also SAP 2009 *The Government's Standard Assessment Procedure for Energy Rating of Dwellings*, Appendix K and the *iSBEM User Manual* for new-build.

Scotland — Accredited Construction Details (Scotland)

Northern Ireland — Accredited Construction Details (version 1.0).

6 Rain penetration

6.1 When the product is used in situations where it bridges the 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:

England and Wales — Approved Document C, section 5

Scotland — Mandatory Standard 3.4, clause 3.4.1[1][2]

(1) Technical Handbook (Domestic).

(2) Technical Handbook (Non-Domestic).

Northern Ireland — Technical Booklet C, Section 1.6.

6.2 Tests for full fill applications confirm that constructions built in accordance with BS 5628-3 : 2005 will prevent water reaching the inner leaf. Water penetrating the outer leaf of the wall, will drain down the cavity face of the outer leaf and the product will contribute to satisfying the national Building Regulations:

England and Wales — Approved Document C, Section 5

Scotland — Mandatory Standard 3.10, clause 3.10.1[1][2]

(1) Technical Handbook (Domestic).

(2) Technical Handbook (Non-Domestic).

Northern Ireland — Technical Booklet C, Section 2.

7 Condensation

Surface condensation

7.1 Walls will limit the risk of surface condensation adequately when the thermal transmittance (U value) does not exceed 0.7 $W \cdot m^{-2} \cdot K^{-1}$ at any point and the junctions with floors, roofs and openings are designed in accordance with *Limiting thermal bridging and air leakage : Robust construction details for dwellings and similar buildings* TSO 2002, IP1/06 or section 5.4 of this Certificate.

7.2 For buildings in Scotland, constructions will be acceptable where the thermal transmittance (U value) of the wall does not exceed 1.2 $W \cdot m^{-2} \cdot K^{-1}$ at any point and openings and junctions with other elements comply with the guidance given in BS 5250 : 2002, Section 8, BRE Report (BR 262 : 2002) *Thermal insulation : avoiding risks* and section 5.4.

Interstitial condensation

7.3 Walls will limit the risk of interstitial condensation adequately when they are designed and constructed in accordance with BS 5250 : 2002, Section 8.3 and Annex D.

8 Behaviour in relation to fire

8.1 The product does not prejudice the fire resistance properties of the wall or constitute a toxic hazard in fire.

8.2 The fire classification of the product is Class A1 in accordance with BS EN 13501-1 : 2007.

8.3 The product may be used as described in the national Building Regulations:

England and Wales and Northern Ireland — in buildings of every purpose group

Scotland — in domestic and non-domestic buildings.

8.4 The requirements of the Building Regulations relating to fire spread in cavity walls can be met in buildings of all purpose groups without the need for cavity barriers, provided the construction complies with the provisions detailed in:

England and Wales — Approved Document B, Volume 1, Diagram 13 and Volume 2, Diagram 34

Northern Ireland — Technical Booklet E, Diagram 3.5.

8.5 For buildings subject to the Building Standards in Scotland, cavity barriers are not required to limit the area of a cavity or at junctions with other wall cavities, but cavity barriers are required around openings, penetrations and junctions with roof or floor cavities, with reference to clauses 2.4.1[1][2], 2.4.2[1][2], 2.6.5[1] and 2.6.6[2].

(1) Technical Handbook (Domestic).
(2) Technical Handbook (Non-Domestic).

8.6 For constructions not covered by sections 8.3 and 8.4, cavity barriers must be provided to comply with:

England and Wales — Approved Document B, Volume 1, Section 6 and Volume 2, Section 9

Scotland — Mandatory Standards 2.4 and 2.6, clauses 2.4.1[1][2], 2.4.2[1][2], 2.6.0[1][2] 2.6.5[1] and 2.6.6[2]

(1) Technical Handbook (Domestic).
(2) Technical Handbook (Non-Domestic).

Northern Ireland — Technical Booklet E, paragraphs 3.35 to 3.38.

9 Maintenance

As the product is confined within the wall cavity and it has suitable durability (see section 10), maintenance is not required.

10 Durability

The product is durable, rot-proof and water resistant and sufficiently stable to remain effective as an insulation for the life of the building.

Installation

11 Site survey

Prior to installation, a survey is carried out by a trained surveyor to ascertain the suitability of the property or properties for Knauf Insulation Supafil 34 Cavity Wall Insulation. A complete survey report is prepared and held at the installer's offices. Particular problems are specifically identified and any reasons for rejection of the work noted.

12 Site preparation

12.1 The installing operative ensures that the property has been correctly surveyed and is suitable for installing the product. The installation should cease if problems are encountered during drilling which prevent compliance with this Certificate.

12.2 Essential ventilation openings, such as those providing combustion air or underfloor ventilation, and all flues in the cavity wall must be checked to ensure adequate sleeving or other cavity closures are present, otherwise installation must not proceed until these openings have been sleeved or otherwise modified to prevent blockage by the product.

12.3 All uncapped cavity walls must be sealed prior to installation.

13 Approved installers

Installation of the product is carried out by the Certificate holder and their approved installers; an approved installer being a company:

- required to satisfy an initial site installation check by the BBA prior to approval by the Certificate holder and is subject to the BBA Assessment and Surveillance Scheme for Installation of Cavity Wall Insulation
- approved by the Certificate holder and the BBA to install the product
- undertaken to comply with the Certificate holder's installation procedure
- employing operatives who have been issued with appropriate identity cards by the Certificate holder; at least one member of each installation team must carry a card
- subject to supervision by the Certificate holder, including unannounced site inspections.

14 Supervision

14.1 Installation of the product should be carried out in accordance with the BBA Assessment and Surveillance Scheme for Installation of Cavity Wall Insulation.

14.2 During installation the following checks shall be made, as an aid to determining that the installation conforms to the certificated method:

- the pattern of holes complies with the description given in section 15.4
- the injection of the material takes place at each hole, to complete the filling of the cavity space.

15 Procedure

15.1 The installation of the product is undertaken using blowing machines approved by the BBA, and marked with the appropriate BBA Certificate number.

15.2 The installer provides all necessary hoses, drilling tools, equipment and materials for making good the walls after the installation of the product.

15.3 Where a semi-detached or terraced property is to be insulated, a cavity brush is inserted at the line dividing the properties to contain the insulation.

15.4 The product is blown into the cavity from the internal leaf only. Holes of 32 mm in diameter (see section 15.6) are drilled in a diamond pattern at approximately 1.35 m centres. The topmost injection holes should not be more than 350 mm below the top of the cavity and not more than 1 m apart. The bottom row of holes should start approximately 800 mm above dpc level. Additional holes may be required to ensure complete filling around building features, eg under window sills around air bricks in column areas between doors and windows, at the tops of walls and under gables. Again, the topmost holes should not be more than 1 m apart under the horizontal boundaries and 1.35 m apart under the sloping boundary at the top of the gable end (see Figures 1 and 2).

Figure 1 Typical drilling pattern — frontage

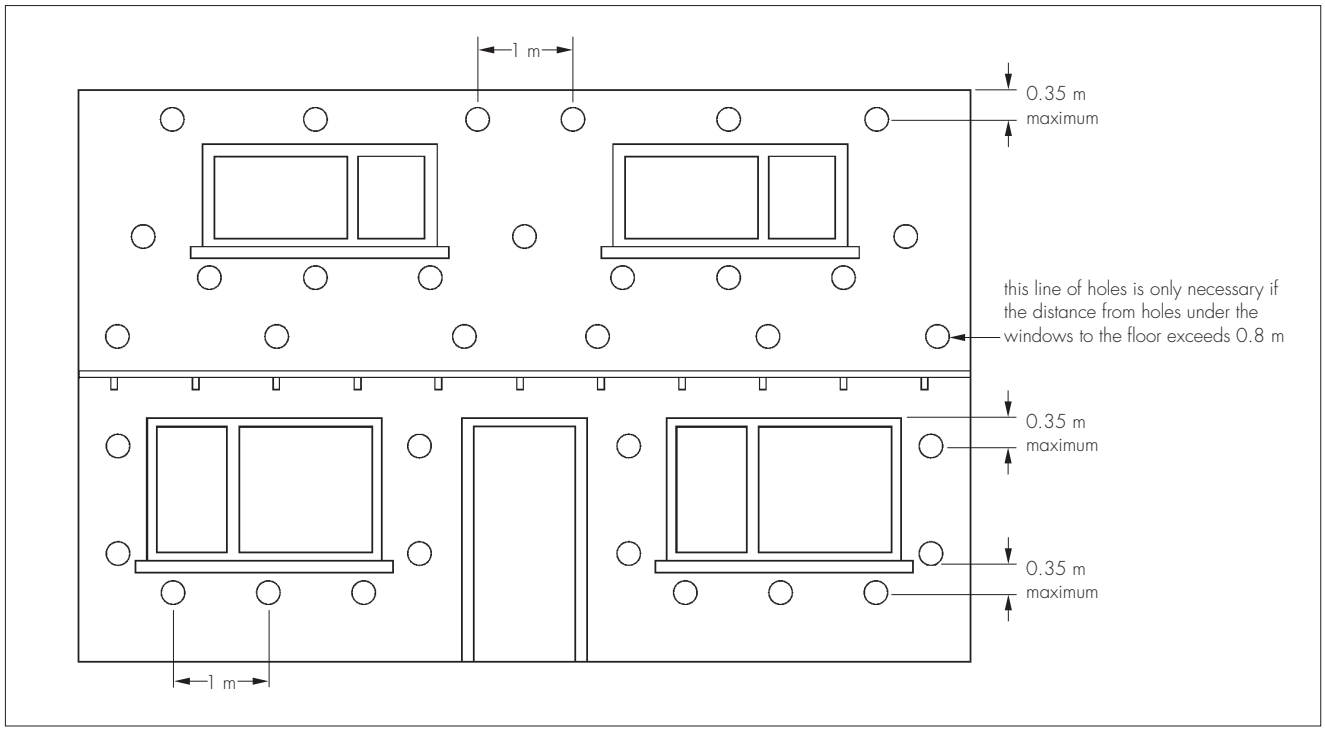
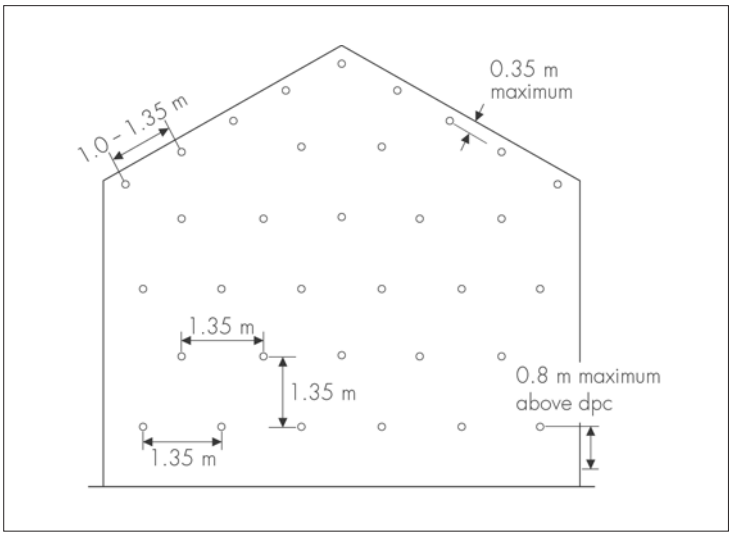


Figure 2 Typical drilling pattern — plain gable end



15.5 To prevent debris falling onto the insulation, filling the cavity should not start until one elevation and at least 2 m of the adjoining elevations are drilled out. The adjoining elevation is filled only after completing the drilling.

15.6 The product is blown into the cavity under pressure through 32 mm clearance holes via a flexible pipe, fitted with 30 mm outside diameter injection nozzle. Filling proceeds from the bottom to the top of the walls and from one end of an elevation to the other.

15.7 After injection of the product, the drill holes are fully filled with mortar. All the trunked air vents are checked, eg, those providing underfloor ventilation and combustion air for heating appliances. In all cases, flues are carefully checked on completion of the installation by means of an appropriate test (eg, a smoke test) to ensure that they are not obstructed by the insulant.

16 Height Restriction Waivers

16.1 Knauf Insulation Supafil 34 Cavity Wall Insulation is for use in buildings up to and including 12 m in height, in new domestic and non-domestic buildings. The product may also be used in buildings over 12 m in height where a height restriction waiver has been issued by the Certificate holder.

16.2 The Certificate holder has a detailed programme for the assessment of buildings over 12 m, as approved and maintained under surveillance by the BBA. Each installation beyond 12 m must be individually assessed by the Certificate holder against this agreed assessment programme and documented approval given prior to the commencement of work.

Technical Investigations

17 Tests

Tests were carried out on Knauf Insulation Supafil 34 Cavity Wall Insulation and the results assessed to determine:

- the water resistance of a cavity wall filled with the insulant
- adequacy of fill using specified installation machinery and drilling pattern
- thermal conductivity
- short term water absorption by partial immersion.

18 Investigations

The manufacturing process of the granulated glass wool fibre was examined, including the methods adopted for quality control, and details were obtained of the quality and composition of the materials used.

Bibliography

BS 5250 : 2002 *Code of practice for control of condensation in buildings*

BS 5628-3 : 2005 *Code of practice for the use of masonry — Materials and components, design and workmanship*

BS 8000-3 : 2001 *Workmanship on building sites — Code of practice for masonry*

BS EN 1996-1-1 : 2005 *Eurocode 6 : Design of masonry structures — General rules for reinforced and unreinforced masonry structures*
NA to BS EN 1996-1-1 : 2005 *UK National Annex to Eurocode 6 : Design of masonry structures — General rules for reinforced and unreinforced masonry structures*

BS EN 1996-1-2 : 2005 *Eurocode 6 : Design of masonry structures — General rules — Structural fire design*
NA to BS EN 1996-1-2 : 2005 *UK National Annex to Eurocode 6 : Design of masonry structures — General rules — Structural fire design*
BS EN 1996-2 : 2006 *Eurocode 6 : Design of masonry structures — Design considerations, selection of materials and execution of masonry*
NA to BS EN 1996-2 : 2006 *UK National Annex to Eurocode 6 : Design of masonry structures — Design considerations, selection of materials and execution of masonry*
BS EN 1996-3 : 2006 *Eurocode 6 : Design of masonry structures : Simplified calculation methods for unreinforced masonry structures*
NA to BS EN 1996-3 : 2006 *UK National Annex to Eurocode 6 : Design of masonry structures : Simplified calculation methods for unreinforced masonry structures*

BS EN 13501-1 : 2002 *Fire classification of construction products and building elements. Classification using test data from reaction to fire tests*

BS EN 14064-1 : 2010 *Thermal insulation products for building — In-situ formed loose-fill mineral wool (MW) products — Specification for the loose-fill products before installation*

BS EN ISO 6946 : 2007 *Building components and building elements — Thermal resistance and thermal transmittance — Calculation method*

19 Conditions

19.1 This Certificate:

- relates only to the product/system that is named and described on the front page
- is issued only to the company, firm, organisation or person named on the front page — no other company, firm, organisation or person may hold or claim that this Certificate has been issued to them
- is valid only within the UK
- has to be read, considered and used as a whole document — it may be misleading and will be incomplete to be selective
- is copyright of the BBA
- is subject to English Law.

19.2 Publications, documents, specifications, legislation, regulations, standards and the like referenced in this Certificate are those that were current and/or deemed relevant by the BBA at the date of issue or reissue of this Certificate.

19.3 This Certificate will remain valid for an unlimited period provided that the product/system and its manufacture and/or fabrication, including all related and relevant parts and processes thereof:

- are maintained at or above the levels which have been assessed and found to be satisfactory by the BBA
- continue to be checked as and when deemed appropriate by the BBA under arrangements that it will determine
- are reviewed by the BBA as and when it considers appropriate.

19.4 The BBA has used due skill, care and diligence in preparing this Certificate, but no warranty is provided.

19.5 In issuing this Certificate, the BBA is not responsible and is excluded from any liability to any company, firm, organisation or person, for any matters arising directly or indirectly from:

- the presence or absence of any patent, intellectual property or similar rights subsisting in the product/system or any other product/system
- the right of the Certificate holder to manufacture, supply, install, maintain or market the product/system
- individual installations of the product/system, including their nature, design, methods, performance, workmanship and maintenance
- any works and constructions in which the product/system is installed, including their nature, design, methods, performance, workmanship and maintenance
- any loss or damage, including personal injury, howsoever caused by the product/system, including its manufacture, supply, installation, use, maintenance and removal.

19.6 Any information relating to the manufacture, supply, installation, use, maintenance and removal of this product/system which is contained or referred to in this Certificate is the minimum required to be met when the product/system is manufactured, supplied, installed, used, maintained and removed. It does not purport in any way to restate the requirements of the Health and Safety at Work etc. Act 1974, or of any other statutory, common law or other duty which may exist at the date of issue or reissue of this Certificate; nor is conformity with such information to be taken as satisfying the requirements of the 1974 Act or of any statutory, common law or other duty of care.

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