

**IRISH AGRÉMENT BOARD
CERTIFICATE NO. 05/0222**

Rockwool Ltd.,
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Rockwool Blown Cavity Wall Insulation System

Isolent de murs à double paroi Kerndämmung

NSAI Agrément (Irish Agrément Board) is designated by Government to issue European Technical Approvals.

NSAI Agrément Certificates establish proof that the certified products are '**proper materials**' suitable for their intended use under Irish site conditions, and in accordance with the **Building Regulations 1997 to 2007**.



PRODUCT DESCRIPTION:

This Certificate relates to the Rockwool Blown Cavity Wall Insulation System. The rock wool fibre material which is injected in loose form into the cavity walls. It is used to reduce the thermal transmittance of completed, new or existing cavity walls with masonry inner and outer leaves.

This Certificate certifies compliance with the requirements of the Building Regulations 1997 to 2007.

USE:

The product is used for the thermal insulation of new or existing masonry walls up to 12 metres in height, subject to the conditions contained in Part 3 of this Certificate. It also facilitates the control of surface and interstitial condensation in walls. The current Building Regulations requirements can be met with this product providing a cavity width of 110 mm is available (see Section 3) for filling to the required density with the full-fill cavity wall insulation.

This Certificate is a confirmation of BBA Certificate No. 89/2316 issued by the British Board of Agrément, PO Box 195, Bucknalls Lane, Garston, Watford WD25 9BA.

MANUFACTURE AND MARKETING

The product is manufactured by:

Rockwool Ltd.,
Pencoed,
Bridgend,
Mid Glamorgan CF35 6NY.
Tel: +44 1656 862621
Fax: +44 1656 862302

The product is marketed by:

Rockwool Ireland.
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1.1 ASSESSMENT

In the opinion of NSAI Agrément, Rockwool Blown Cavity Wall Insulation System if used in accordance with this certificate can meet the requirements of the Building Regulations 1997 to 2007 as indicated in Section 1.2 of this Agrément Certificate.

1.2 BUILDING REGULATIONS 1997 to 2007

REQUIREMENT:

Part D - Materials and Workmanship

D3 – Rockwool Blown Cavity Wall Insulation System, as certified in NSAI Agrément Certificate, is manufactured from materials which are 'proper materials' fit for their intended use (see Part 4 of this Certificate).

D1 – Rockwool Blown Cavity Wall Insulation System used in accordance with this NSAI Agrément Certificate, can meet the requirements for workmanship.

Part B – Fire Safety

B3 – Internal fire spread (Structure)

Rockwool Blown Cavity Wall Insulation System is non-combustible and may be used in masonry cavity walls in buildings of every purpose group (see Section 4.1 of this Certificate).

Part C – Site Preparation and Resistance to Moisture

C4 – Resistance to Weather and Ground Moisture

Rockwool Blown Cavity Wall Insulation System can meet the requirements, when installed in accordance with this Certificate in cavity walls constructed in compliance with the conditions indicated in Part 3 of this Certificate, and in situations where insulation is placed below the damp-proof course (see Section 4.2 of this Certificate).

Part J – Heat Producing Appliances

J3 – Protection of Building

In the opinion of NSAI Agrément, the Rockwool Blown Cavity Wall Insulation System if used in accordance with this Certificate, can meet the requirements of Part J of the Building Regulations 1997 to 2007.

Part L – Conservation of Fuel and Energy

L1 – Conservation of Fuel and Energy

U value calculations may be based on a λ value = 0.04 W/(mK). Walls using Rockwool Blown Cavity Wall Insulation System can meet the current U-value requirements in Full Fill Cavity Wall Insulation applications depending on the cavity width (see Table 1 – Section 4.4 of this Certificate).

2.1 PRODUCT DESCRIPTION

Rockwool Blown Cavity Wall Insulation System consists of rock wool fibre material which is injected in loose form into the cavity walls.

The current Building Regulation requirements for New Build can be met by installing this product, providing that a cavity width of between 105 and 130 mm (as per Table 1) is available for installation of the full-fill material. It should be noted that the construction of walls with cavities in excess of 110 mm requires adjustments to lintels, wall ties, cavity barriers etc. It is therefore necessary that cavity walls are adequately designed in respect of structural stability and fire safety in accordance with Parts A and B of the Building Regulations (see section 4.4 of this certificate).

2.2 MANUFACTURE

Rockwool Blown Cavity Wall Insulation System is manufactured from rockwool fibres which are treated with an inert water repellent during manufacture.

2.3 DELIVERY, STORAGE AND MARKING

The Rockwool Blown Cavity Wall Insulation System is delivered to site in polythene wrapped bales marked with the NSAI Agrément identification mark incorporating the number of this Certificate. The material, which has an indefinite storage life, should be kept dry.

2.4 INSTALLATION PROCEDURE

2.4.1 Site Survey

A survey is carried out prior to installation by a trained surveyor, acting on behalf of the Certificate Holder/ Approved Installer who will ascertain the suitability of the property or properties for the Rockwool Blown Cavity Wall Insulation System. A complete survey (including a boroscope survey) report is prepared and held at the Approved Installer's offices. Particular problems are specifically identified and any reasons for rejection of the work are noted.

Quotations, tenders and invoices bear the NSAI Agrément identification mark incorporating the number of this Certificate.

2.4.2 Site Preparation

The installing operative ensures that the property has been correctly surveyed and is suitable for insulation with the Rockwool Blown Cavity Wall Insulation System. Any problems encountered during drilling which prevent compliance with this Certificate are referred to the Certificate holder before proceeding.

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

The tops of cavity walls must be closed where possible. Where it is not possible to gain adequate access to facilitate closing the tops of the cavities, any material that escapes into the loft must be removed. Cavity filling should not be done where electrical cables are not in conduits.

2.4.3 Approved Installers

Installation of the Rockwool Blown Cavity Wall Insulation System is carried out by Rockwool Ltd. or by their Approved Installers who:

- 1) Are required to meet the requirements of an initial site installation check by NSAI Agrément prior to approval by Rockwool Ltd. and are subject to the NSAI Agrément Surveillance Scheme.
- 2) Are approved by Rockwool Ltd. and the NSAI Agrément to install the product.
- 3) Have undertaken to comply with the Rockwool Ltd. installation Procedure.
- 4) Are employing operatives who have been issued with appropriate identity cards by Rockwool Ltd. At least one member of each installation team must carry a card verifying this.
- 5) Are subject to supervision by Rockwool Ltd., including unannounced site inspections.

2.4.4 Supervision

Installation should be carried out in accordance with the NSAI Agrément Surveillance Scheme.

During installation the following simple checks can be made, as an aid to determining that the installation conforms to the certified method:

- 1) Check that the pattern of holes complies with the description given in Section 2.4 of this Certificate.
- 2) Check that the injection of the material takes place at each hole, to complete the filling of the cavity space.

2.4.5 Procedure

The Rockwool Blown Cavity Wall Insulation System is installed using approved blowing equipment marked with the appropriate NSAI Agrément Certificate number. The installer provides all necessary hoses, drilling tools equipment and materials for making good the walls after the installation of the Rockwool Blown Cavity Wall Insulation System.

Where a semi-detached or terraced property is to be treated, the insulation is contained by inserting a cavity barrier at the line dividing the properties. This consists of a cavity brush. After filling, the cavity barrier is retained in the cavity and the drill holes filled. The nylon brush can also be used to prevent the blocking of under floor vents with the blown material where these have not been previously sleeved.

After completion of the cavity survey and drilling pattern for the building, preparation for injection into the cavity is as follows:

Injection holes of an appropriate diameter are drilled in the outer or inner leaf of the wall to the hole pattern shown in Figure 1. The topmost injection holes should not be more than 350 mm below the upper edge of the cavity and not more than 0.7m apart.

Additional holes may be required to ensure complete filling around building features (for example, under window sills and around air bricks, at the tops of walls and under gables).

The first row of holes should be not more than 1.0 m above dpc level except at locations below ground-floor windows where holes are drilled 0.35 m below the sill at centres not exceeding 0.7 m (i.e. three bricks).

At corners of the building, holes should be drilled not more than 1.0 m from the edge.
(See Figure 1).

The exact location of a chimney or flue on an external wall must be determined so the hole pattern can be adjusted. Holes must be drilled 0.5m either side of the centre line of the chimney or flue.

The product is blown into the cavity under pressure through a flexible pipe fitted with a 17 mm or 24 mm diameter tapered injection nozzle through 18 mm or 25 mm diameter holes respectively. 28mm diameter holes may be used in new build situations when holes are drilled in the internal leaf of the wall. Filling proceeds from the bottom to the top of the walls and from one end of an elevation to the other.

After injection, the wall is made good to match the existing finish as closely as possible. All the trunked air vents are checked, e.g. 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 (e.g. a smoke test) to ensure they are not obstructed by the insulant.

Any insulant that has been blown through the top of the cavity into the loft space is removed.

3 GENERAL

The Rockwool Blown Cavity Wall Insulation System, when installed in accordance with this Certificate, is effective in reducing the 'U' value (thermal transmittance) of external masonry cavity walls, using clay or calcium silicate bricks, concrete blocks, natural stone or reconstructed stone masonry units. It is essential that such walls are designed and constructed to prevent moisture penetration and in accordance with the Building Regulations.

- 3.1** As with all cavity wall insulation, the construction detailing of the building where the insulation is to be installed should comply with good practice. Certification will only relate to buildings which conform to the design conditions set out here and to buildings where the Certificate Holder or Registered Installer has carried out a complete assessment, including a boroscope survey, and has given written approval for the use of the product.
- 3.2** Cavity walls with the outer leaf constructed using unrendered (fair-faced) block work are not suitable for full-fill cavity wall insulation. They are therefore not covered by this Certificate.
- 3.3** There are separate procedures for assessing suitability of existing and new buildings for Rockwool Blown Cavity Wall Insulation System.
- 3.4** Existing buildings should be assessed in accordance with BS 8208:Part 1:1985 *Guide for the assessment of suitability of external cavity walls, for filling with thermal insulants – Existing traditional cavity construction*. Existing Buildings are defined as buildings of at least three years old.
- 3.5** For new buildings, the designer selects a construction appropriate to the local wind-driven rain index, paying due regard to the design, detailing, workmanship and materials to be used.
- 3.6** Buildings subject to the relevant requirements of the Building Regulations 1997 to 2007 should be constructed in accordance with IS 325:Part 1:1986 *Code of Practice for the use of Masonry - Structural Use of Unreinforced Masonry*, and IS 325:Part 2:1995 *Code of Practice for the use of masonry - Masonry construction*. Where reinforced masonry is involved, the design should be in accordance with BS 5628:Part 2:2005 *Code of practice for use of masonry, Structural use of reinforced and prestressed masonry*.

The relevant recommendations of Section 3 of BS 5390:1976 *Code of practice for stone masonry* should be followed where the wall incorporates stone or cast stone. In the case of fair faced brickwork only tool flush joint brickwork is acceptable, subject to the following conditions:

- The minimum cavity width for existing buildings is 50 mm;
- There are no signs of dampness on the inner face of the cavity other than those caused solely by condensation.

- 3.7** Any defects recorded which may affect the performance of the installed insulation system must be rectified to the satisfaction of the Certificate Holder/Approved Installer before work commences.
- 3.8** In cavities where electric cables can come into contact with rock wool fibre material, in accordance with good construction practice all PVC sheathed electric cables should be run through ducting.
- 3.9** Rockwool Blown Cavity Wall Insulation System is capable of contributing to or exceeding the 'U' value of 0.27W/m²K required in the Building Regulations (See Table 1).
- 3.10 Assessment of Exposure Zones**
During the assessment phase of a building for cavity wall insulation the topography factor of the site must be taken into account in all exposure zones. The topography factor takes account of local features such as hills, cliffs, escarpments or ridges where dwellings are located, which can significantly affect the wind speed in their vicinity. It should be derived for each wind direction considered. Reference should be made to BS 8104:1992 *Code of practice for assessing exposure of walls to wind driven rain*, for guidance in this regard. Appendix C makes reference to the topography factor which details the method of calculation of the wind driven rain index for exposed sites in all zones. It is only after all relevant factors are considered and calculations carried out can a true assessment of the work content for a particular building be arrived at. Figure 2 identifies the two exposure zones for wind driven rain appropriate to this certificate as follows:

3.10.1 Normal Exposure

Normal exposure to wind-driven rain applies in districts where the driving rain index is less than 5m²/sec/year however, some areas may require modification to calculations in order to cater for particular individual sites where the topography of a site warrants it (see Figure 2). Appendix C of BS 8104:1992 should be consulted.

In **normal exposure** areas the types of outer leaf masonry finishes and zones where the Rockwool Blown Cavity Wall Insulation System is suitable are as follows:

- Impervious cladding and rendered walls with a minimum cavity width of 90 mm and up to 12m in height, and
- Fair faced unrendered brickwork with tooled flush joints up to two storeys in height with a minimum cavity width of 90mm and up to three storeys in height with a minimum cavity width of 140mm.

3.10.2 Severe Exposure

Severe exposure to wind-driven rain applies in districts where the driving rain index is 5m²/sec/year or more (see Figure 2). During the pre-insulation survey of any particular building, due regard to the exposure zones and type of masonry construction must be assessed prior to the commencement of the installation process.

In **severe exposure** areas the type of outer leaf masonry finish where the Rockwool Blown Cavity Wall Insulation System is suitable is:

- Impervious cladding and rendered walls with a minimum cavity width of 90mm and up to 12m in height.

Unrendered brickwork is not suitable for full-fill cavity wall insulation in the severe exposure zones.

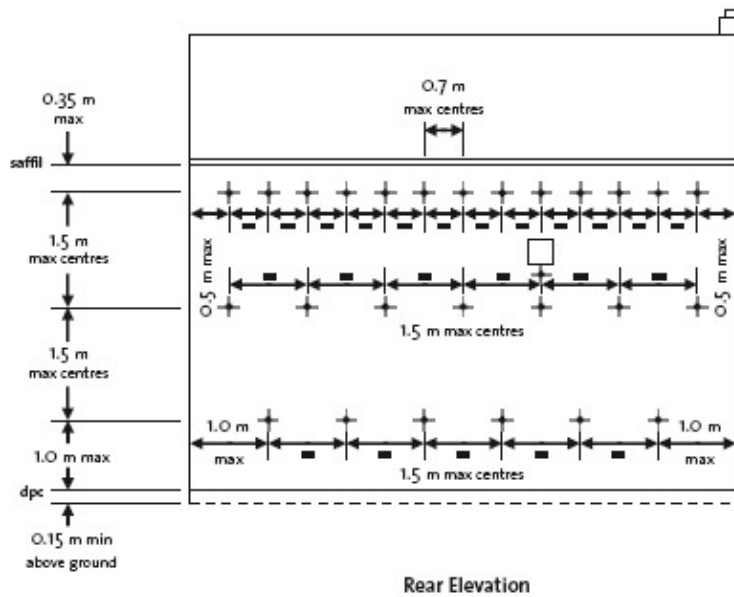
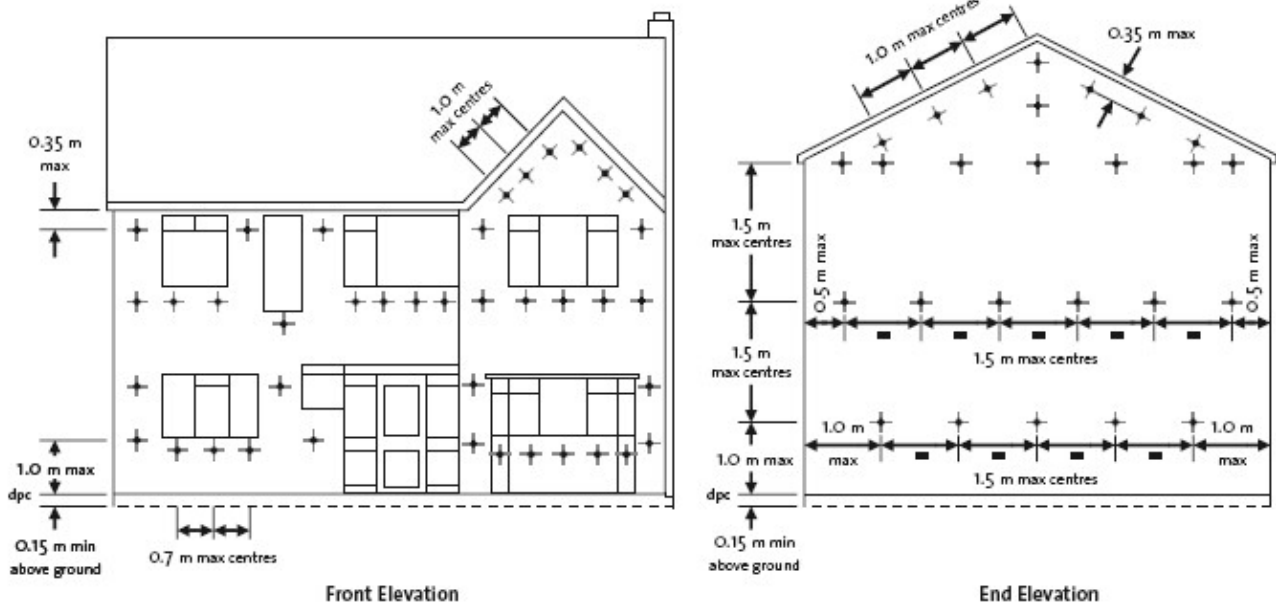
Weep holes in accordance with good construction practice must be provided at the base of brick faced cavity walls at 450mm centres and over lintels.

3.11 In both new and existing buildings, whenever practicable, all of the cavity space from ground level to roof or gable copings must be filled. Partial filling is only allowed in the following situations:

- 1) When separately insulating semi-detached or terraced properties. The type of cavity barrier used for this purpose must be as defined in Section 2.4.5 of this Certificate.
- 2) Up to the underside of a horizontal boundary, other than the roof, where that boundary is protected by a cavity tray or similar waterproof barrier which must not be distorted or damaged by the installation process.
- 3) Where filling is carried out above a horizontal boundary where that boundary is protected by a cavity tray or similar waterproof barrier which must not be distorted or damaged by the installation process.
- 4) When treating properties where the wall to be insulated is below a waterproof cladding (e.g. tile hung) and this cladding either extends up to the roof or is protected at the top by other means (e.g. window sills with adequate waterproof barrier system).

3.12 Structures

The spacing of wall ties should be installed in accordance with Table 9a of IS 325:Part 2:1995. When the cavity width exceeds 110mm the wall and foundations should be designed by a Structural Engineer in accordance with IS 325:Part 1:1986.



Rockwool CWI
18mm or 25mm Hole Drilling Pattern
Typical Pattern for Detached Houses

1. Maximum height above dpc to be 1.0 metre.
2. Maximum distance from all corners or other vertical features to be 1.0 metre.
3. Maximum centres for fill holes horizontally and vertically 1.5 metres.
4. Maximum distance below soffit on sloping gable 0.35 metres at 1.0 metre centres.
5. Maximum distance below windows or horizontal soffit to be 0.35 metres
6. Additional holes may be required to ensure complete filling around building features.

Figure 1: Typical Rockwool Hole Drilling Pattern in a Detached Dwelling

Driving Rain Map

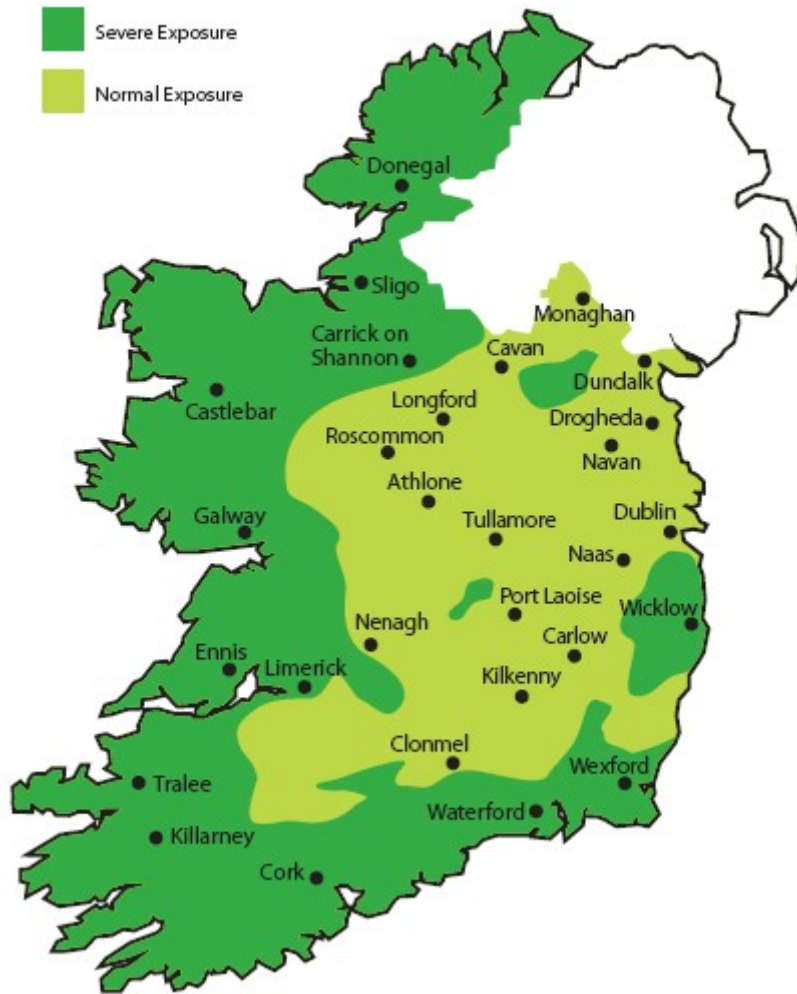


Figure 2: Driving Rain Map

4.1 BEHAVIOUR IN FIRE

- 4.1.1** The use of the product does not prejudice the fire resistance properties of the wall. A sample of the product tested to BS 476: Part 4: 1970 (1984) *Fire tests on building materials – Non-combustibility test for materials*, achieved the classification 'Non-combustible'.

When using this product, the requirements of the Building Regulations 1997 to 2007 relating to fire spread in cavity walls can be met in all purpose groups without the need for cavity barriers provided the walls are constructed in accordance with the following provisions of the TGD to Part B Fire:

1. The wall must consist of masonry inner and outer leaves, each at least 75 mm thick.
2. The cavity must be closed at the top of the wall and at the top of any opening.
3. In addition to the product only the following combustible materials shall be placed in, or exposed to, the cavity:
 - a) timber lintel, window or door frame, or end of timber joist
 - b) pipe, conduit
 - c) dpc flashing closer or wall tie
 - d) domestic meter cupboard, provided that:
 - there are not more than two cupboards to a dwelling.
 - the opening in the outer leaf is not more than 800 mm by 500 mm for each cupboard, and
 - the inner leaf is not penetrated except by a fire-stopped sleeve not more than 80 mm by 80 mm.
 - e) thermal insulating material
 - f) in respect of purpose groups 3 – 8 the cavities are sub-divided so that the distance between cavity barriers does not exceed the dimensions given in paragraph 3.3 of the TGD to Part B

- 4.1.2** For buildings constructed in accordance with the Building Regulations 1997 to 2007 the product may be used in buildings of every purpose group.

- 4.1.3** As the Rockwool Blown Cavity Wall insulation material is manufactured without the use of 'CFCs'. Or similar gases, there is no release of such gas on burning.

4.2 LIQUID WATER PENETRATION

- 4.2.1** Test data obtained by the NSAI Agrément confirms that a masonry wall incorporating the Rockwool Blown Cavity Wall Insulation System and built to the requirements of IS 325: Part 1: 1986, will not transmit water to the inner leaf.
- 4.2.2** Test data obtained by NSAI Agrément also demonstrates that the Rockwool Blown Cavity Wall Insulation System material does not absorb water by capillary action. Water which penetrates the outer leaf of the wall will drain down the cavity face of the outer leaf. When the product is used in situations where it bridges the dpc in walls, dampness from the ground will not pass through, provided the cavity is taken down to at least 150 mm below the level of the lowest dpc.
- 4.2.3** The Rockwool Blown Cavity Wall Insulation System, when used in accordance with this Certificate, presents no significant risk of water penetration.

4.3 WATER VAPOUR PENETRATION AND CONDENSATION RISK

The Rockwool Blown Cavity Wall Insulation System is not a water vapour barrier.

4.4 THERMAL INSULATION

The thermal conductivity 'λ' value' of the Rockwool Blown Cavity Wall Insulation material may be taken as 0.04 W/(mK) for the purpose of U value calculations.

The required maximum U-values for external walls can be obtained in typical cavity wall constructions as indicated in Table 1.

4.5 DURABILITY

The Rockwool Blown Cavity Wall Insulation System is rot-proof, water repellent and durable. When installed in accordance with this certificate it is sufficiently stable to prevent settlement and will remain effective as an insulant for the life of the building when installed in accordance with this Certificate.

4.6 TESTS AND ASSESSMENTS WERE CARRIED OUT TO DETERMINE THE FOLLOWING:

- efficiency of fill using specified equipment and drilling pattern
- density of fill
- water resistance of filled cavity
- water uptake
- thermal conductivity

4.7 OTHER INVESTIGATIONS

- Existing data on product properties in relation to fire, toxicity, environmental impact and the effect on structural stability and durability were assessed. The absence of chloro-fluorocarbon gases 'CFCs' was established by test.
- The manufacturing process was examined including the methods adopted for quality control, and details were obtained of the quality and composition of the materials used.
- A site visit was conducted to assess the practicability of installation.
- Driving rain resistance was assessed.
- A condensation risk analysis was performed.

Table 1: External Walls – Estimated U Values W/(m²K)

Brick 1700 kg/m³ / Block 1800 kg/m³ / 13mm Plaster																	
mm	50	55	60	65	70	75	80	85	90	95	100	105	110	115	120	125	130
U	0.59	0.55	0.51	0.48	0.45	0.43	0.41	0.39	0.37	0.35	0.34	0.33	0.31	0.30	0.29	0.28	0.27
Brick 1700 kg/m³ / Block 1800 kg/m³ / 12.5mm Plasterboard on dabs																	
mm	50	55	60	65	70	75	80	85	90	95	100	105	110	115	120	125	130
U	0.53	0.49	0.46	0.44	0.42	0.38	0.38	0.36	0.34	0.33	0.31	0.30	0.29	0.28	0.27	0.26	0.25
Brick 1700 kg/m³ / Block 1400 kg/m³ / 13mm Plaster																	
mm	50	55	60	65	70	75	80	85	90	95	100	105	110	115	120	125	130
U	0.54	0.51	0.48	0.45	0.42	0.40	0.38	0.36	0.35	0.33	0.32	0.31	0.30	0.29	0.28	0.27	0.26
Brick 1700 kg/m³ / Block 1400 kg/m³ / 12.5mm Plasterboard on dabs																	
mm	50	55	60	65	70	75	80	85	90	95	100	105	110	115	120	125	130
U	0.50	0.47	0.44	0.42	0.40	0.36	0.36	0.35	0.33	0.32	0.30	0.29	0.28	0.27	0.26	0.25	0.25
Brick 1700 kg/m³ / Block 650 kg/m³ / 13mm Plaster																	
mm	50	55	60	65	70	75	80	85	90	95	100	105	110	115	120	125	130
U	0.46	0.43	0.41	0.39	0.37	0.35	0.34	0.32	0.31	0.30	0.29	0.28	0.27	0.26	0.25	0.25	0.24
Brick 1700 kg/m³ / Block 650 kg/m³ / 12.5mm Plasterboard on dabs																	
mm	50	55	60	65	70	75	80	85	90	95	100	105	110	115	120	125	130
U	0.43	0.41	0.39	0.37	0.35	0.32	0.32	0.31	0.30	0.29	0.28	0.27	0.26	0.25	0.25	0.24	0.23
^{1/} 19mm Render / Block 650 kg/m³ / Block 650 kg/m³ / 12.5mm Plasterboard on dabs																	
mm	50	55	60	65	70	75	80	85	90	95	100	105	110	115	120	125	130
U	0.40	0.38	0.36	0.35	0.33	0.32	0.31	0.29	0.28	0.27	0.27	0.26	0.25	0.24	0.23	0.23	0.22

The construction of walls with cavities in excess of 110mm wide requires adjustments to lintels, wall ties, cavity barriers, etc. It is therefore necessary that cavity walls are adequately designed in respect of structural stability and fire safety in accordance with Parts A and B of the Building Regulations. For Table 1 it is assumed that cavity walls containing full-fill rock wool fibre will be constructed in accordance with the requirements of the 1997 to 2007 Building Regulations.

^{1/} Calculated U value on wall construction with inner and outer leaves of 650kg/m³ IAB Certified blocks (λ value = 0.17 W/mK)

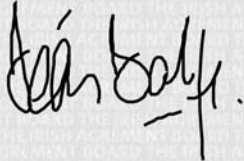
- 5.1** National Standards Authority of Ireland ("NSAI") following consultation with NSAI Agrément, has assessed the performance and method of installation of the product/process and the quality of the materials used in its manufacture and certifies the product/process to be fit for the use for which it is certified provided that it is manufactured, installed, used and maintained in accordance with the descriptions and specifications set out in this Certificate and in accordance with the manufacturer's instructions and usual trade practice. This Certificate shall remain valid for five years from date of issue so long as:
- (a) the specification of the product is unchanged.
 - (b) the Building Regulations 1997 to 2007 and any other regulation or standard applicable to the product/process, its use or installation remains unchanged.
 - (c) the product continues to be assessed for the quality of its manufacture and marking by NSAI.
 - (d) no new information becomes available which in the opinion of the NSAI, would preclude the granting of the Certificate.
 - (e) the product or process continues to be manufactured, installed, used and maintained in accordance with the description, specifications and safety recommendations set out in this certificate.
 - (f) the registration and/or surveillance fees due to NSAI Agrément are paid.
- 5.2** The NSAI Agrément mark and certification number may only be used on or in relation to product/processes in respect of which a valid Certificate exists. If the Certificate becomes invalid the Certificate holder must not use the NSAI Agrément mark and certification number and must remove them from the products already marked.
- 5.3** In granting Certification, the NSAI makes no representation as to;
- (a) the absence or presence of patent rights subsisting in the product/process; or
 - (b) the legal right of the Certificate holder to market, install or maintain the product/process; or
 - (c) whether individual products have been manufactured or installed by the Certificate holder in accordance with the descriptions and specifications set out in this Certificate.
- 5.4** This Certificate does not comprise installation instructions and does not replace the manufacturer's directions or any professional or trade advice relating to use and installation which may be appropriate.
- 5.5** Any recommendations contained in this Certificate relating to the safe use of the certified product/process are preconditions to the validity of the Certificate. However the NSAI does not certify that the manufacture or installation of the certified product or process in accordance with the descriptions and specifications set out in this Certificate will satisfy the requirements of the Safety, Health and Welfare at Work Act, 2005, or of any other current or future common law duty of care owed by the manufacturer or by the Certificate holder.
- 5.6** The NSAI is not responsible to any person or body for loss or damage including personal injury arising as a direct or indirect result of the use of this product or process.
- 5.7** Where reference is made in this Certificate to any Act of the Oireachtas, Regulation made thereunder, Statutory Instrument, Code of Practice, National Standards, Manufacturer's instructions, or similar publication, it shall be construed as reference to such publication in the form in which it is in force at the date of this Certification.

NSAI Agrément

This Certificate No. **05/0222** is accordingly granted by the NSAI to **Rockwool Ltd.** on behalf of The Irish Agrément Board.

Date of Issue: **May 2005**

Signed



Seán Balfe
Director of the Irish Agrément Board

Readers may check that the status of this Certificate has not changed by contacting NSAI Agrément, NSAI, 1Swift Square, Santry, Dublin 9, Ireland. Telephone: (01) 807 3959. Fax: (01) 807 3842. www.nsai.ie

Revisions: September 2008

- General revisions