

PRODUCT TECHNICAL STATEMENT

Version: 13 May 2013 Amd 1

Material
Type
Product
Application

Rock(stone)wool by ROCKWOOL®

Granulate

EnergySaver (Masonry)

Cavity masonry walls



This document: Provides a summary product statement for:

- National Construction Code (NCC) compliance when installed into *cavity masonry walls*
- Building design and construction
- Product manufacture
- Installation equipment and practices
- Installed compliance warranty

Document set

The EnergySaver compliance set has the following document parts:

Part 1 of 4	Product technical statement (Masonry) – this document
Part 2 of 4	Product data sheet
Part 3 of 4	Product performance assessment (Masonry)
Part 4 of 4	Construction code review (Masonry)

Notices

National Construction Code 2013

Original	20 Feb 2013	
Amd No.	Date	Description
1	13 May 2013	Editorial changes to improve clarity and identify each part of the document set

Disclaimer The information contained herein for use by suitably qualified building professionals. Whilst the information presented was to the best of our knowledge accurate and reliable at the time of preparation, no responsibility is accepted for errors and omissions. This information should not be construed as a recommendation to use any product in violation of any patent rights or in breach of any statute or regulation. Building professionals are advised to make their own determination as to the suitability of this information in relation to their particular purposes and specific circumstances. Since the information contained in this document may be applied under conditions beyond our control, no responsibility can be accepted by AIS for any loss or damage caused by any person acting or refraining from action as a result of this information.

EnergySaver (Masonry) Compliance Set

[1] BCA defined terms
 In keeping with NCC protocol, BCA defined terms are shown in italics.

The **EnergySaver (Masonry) Compliance Set** (see documents listed on page 1) provides a detailed description of installed system compliance for *cavity* [1] masonry construction. This document provides a summary technical statement.

Product description



EnergySaver cavity wall insulation is a granulated rock(stone)wool product designed to be “blown” into new and existing masonry wall *cavities* to provide a continuous insulation barrier.

The granulate form allows the product to be installed into any cavity width, meaning that a higher added insulation *R-Value* can be achieved by increasing the cavity width (see **Compliance: JP1 and P2.6.1** for thermal performance values).

Cavity masonry installation has been certified by the British Board of Agrément (BBA) since 1989, and ongoing certificate renewal is based on the product having a proven installed performance history.

Compliance

When installed into the *cavity* of masonry walls, the product complies with the **National Construction Code (NCC) Volumes One and Two – Building Code of Australia (BCA)**.

The compliance flowchart on Page 4 illustrates the evaluation process undertaken to determine the *BCA Performance Requirements* that apply.

Australian and overseas technical evidence has then been used to verify installed product compliance and, where appropriate, this evidence has in turn been verified by *Expert Judgement* as satisfying the following *Performance Requirements*:

- **FP1.4 and P2.2.2/2.2.3 – Damp and weatherproofing:** the product is water resistant, capillary action resistant and water vapour permeable. When installed it will not diminish masonry *cavity* weatherproofing performance, it will not diminish masonry wall damp-proofing performance, and it will not contribute to interstitial (building fabric) condensation.
- **CP1/CP2/CP4 and P2.3.1 – Fire resistance:** the product is *non-combustible*. When installed, it will not diminish masonry wall *fire-resisting* performance.
- **GP2.1 and P2.3.3 – Heating appliances:** the product is heat resisting. When installed, it will not be affected by exposure to flues, chimneys and the like.
- **GP5.1 and P2.3.4 – Bushfire:** the product is *non-combustible*: When installed, it will not affect *cavity* masonry bushfire resistance performance.
- **FP5.5/FP5.3 and P2.4.6 – Sound insulation:** when installed, the product is airborne and impact sound neutral – it will not diminish the compliance of otherwise compliant *cavity* masonry.
- **JP1 and P2.6.1 – Energy efficiency:** the product has a declared [2] thermal conductivity of 0.038W/mK. When installed at a nominal 40 kg/m³ density to thickness of 50mm, it will provide a continuous insulation barrier with thermal resistance of R1.32 (The *Total R-Value* achieved for *cavity* masonry depends on the individual component layers and the cavity width [3]).

Building design and construction

The product can be installed into new and existing masonry *cavities*. For new buildings, installation can take place before or after roof cover to suit your building program.

Installation is limited to the building classifications, wall types and construction shown in Table 1, and presumes that the masonry is NCC compliant and that the *cavity* is clean.

There are no other extra over masonry design or masonry construction requirements.

Table 1 Building Classification Wall type Construction

	Building Classification	Wall type	Construction
BCA Volume One	Class 2, 3, 9c Buildings	External, Common & Fire walls	Unreinforced <i>cavity</i> masonry: with a nominal 50mm cavity up to 9m in height
BCA Volume Two	Class 1 & 10a Buildings	External, Common & Separating walls	

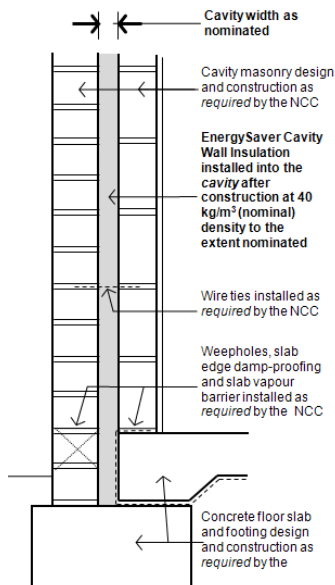
[2] Declared thermal conductivity
 A more conservative performance outcome than sample tested value.

[3] Technical notes
Total R-Value of cavity masonry
Total R-Value of single leaf masonry

Specified design life

The product is dimensionally stable, water resistant, inert and inorganic.

When installed it will continue to fit tightly and will not shrink, it will resist moisture ingress across the *cavity*, its performance will not be affected by dust contamination, it will not degrade or react with other materials, and it will not promote or sustain termite infestation.



Typical cavity masonry installation detail





Manufacture

The product is manufactured by Rockwool Limited; an ISO 9001 quality assured company.

It is made from diabase, a volcanic rock that is melted to 1500°C and spun at high speed to produce hair-fine fibres. The fibres are impregnated with a water repellent additive, bonded together with a thermosetting resin and oven cured to produce a material with a controlled structure and density. The cured material is then milled to produce the specific purpose granulate product used for cavity wall installation.

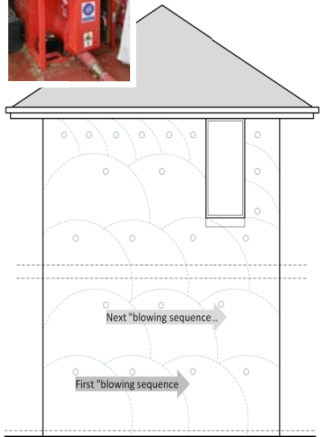
Installation

Site installation is undertaken by trained and accredited technicians using the as-tested and approved blowing machine (complete with flexible hose and nozzle) and installation procedures.

Walls and cavities are inspected, injection hole locations planned, and then drilled (18, 22 or 26mm diameter depending on the application) in a formulated pattern and spacing.

The product is then “blown” into the cavity at each hole under a controlled pressure of 22-24 kPa. Remote access and control is achieved using long length hoses and remote control/operation handset. Filling proceeds from the bottom to the top of the wall, and from one side to the other until the cavity is fully filled to the nominal density and consistency.

Test box sampling is undertaken during the “blowing” process to verify that the nominal material density is being achieved.



Builder productivity benefits

Use of the product will improve bricklayer productivity because there is no time lost installing insulation and no risk of making good or the need for re-work. It also provides greater work flexibility because installation is scheduled to suit the building program.

Installed Compliance Warranty

Product and installation are covered by a 20 year Installed Compliance Warranty.

This provides the builder and/or owner with the chain-of-custody required to ensure both product and installation compliance is delivered.

Building owner maintenance

There are no product specific maintenance requirements.

Accredited installers

Perth metro and regions: **AIS Home Insulation**

Southwest: **Wall Insulation Southwest**

For further information contact **Stuart Carson** at AIS Home Insulation:

M +61 (0)414 720 943

T +61 (0)8 9417 9494

E stuart@ais-group.com.au



Compliance assessment flowchart: BCA Volume One and Two - EnergySaver cavity wall insulation

