

## Green Star – Office Interiors v1.1

**Emissions****Emi-2 Insulation Ozone Depleting Potential**

Points Available	Points Claimed	CIR Submitted
1	1	N

**Credit Criteria**

One point is awarded where it is demonstrated that the thermal insulation avoids the use of ozone-depleting substances in both its manufacture and composition. If no insulation has been installed by the tenant this credit is 'Not Applicable' (type "na" in the 'Points Achieved' column).

**Documents Provided**

✓	A summary document detailing all insulation installed by the tenant, and information from the subcontractor confirming insulation provided was used in the fitout works.
✓	Information from the supplier confirming that all listed insulation is not composed of ozone-depleting substances (including the blowing agent);

**Discussion**

- Insulant list and where relevant information can be found:
  - Knauf Rocksilk – page 1 of 2 in Rocksilk Data Sheet
  - FBS-1 – page 4 of 4 in FBS-1 MSDS
  - Fletcher Insulation – page 1 of 1

## INTERIORS

## FACSIMILE

TO: Green Building Council Australia

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ATTENTION: Joe Karten / Adam Terrill

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FAX NO: (02) 8252 8223 (03) 9674 1666

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FROM: Ray Allan

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DATE: 12.06.08

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SUBJECT: Letters as requested

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Joe,

Please find attached copies of letter for Floor Treatments and Insulation as requested.

Should you have any further queries in regards to the above matter please do not hesitate to contact the under signed

Regards

RAY ALLAN



Emi-2: 1



Job Reference Number: #07666

Total Image Interiors Pty Ltd  
abn: 91 125 277 689

11<sup>th</sup> June 2008

PO Box 8466  
South Sydney BC  
Alexandria NSW 2015

Green Building Council of Australia  
Level 15  
179 Elizabeth Street  
SYDNEY NSW 2000

Ph: (02) 9700 7122  
Fax: (02) 9700 7433  
[www.totalimage.com.au](http://www.totalimage.com.au)

Attention: Joe Kanten

Dear Joe

This letter confirms that the following types of insulation were used in the fitout works of Level 15, 179 Elizabeth Street, Sydney:-

- Knauf RocksilK
- FBS-1
- Fletcher Insulation

No other types of insulation were installed in the Green Building Council fitout.

Feel free to contact me with any questions you may hav.

Yours sincerely

A handwritten signature in black ink, appearing to read "Ray Allan", written over a horizontal line.

RAY ALLAN  
Site Manager



# Rocksilks Universal Slab

## Description

Rocksilks Universal Slabs are unfaced, rock mineral wool slabs, available in a range of densities from 33 to 200 kg/m<sup>3</sup>. The standard product is supplied unfaced, but slabs can also be manufactured with a factory applied foil or tissue facing and are also available with a water repellent additive.

## Application

Rocksilks Universal Slabs are used for a wide range of thermal and acoustic insulation applications in buildings, building services and industry.

## Standards

Rocksilks Universal Slabs are made from non-combustible inorganic rock wool, defined as mineral wool in BS 3533: 1981 and are manufactured to a Quality Assurance system which complies with BS EN ISO 9001:2000.

## Durability

Rocksilks Universal Slabs are odourless, non-hygroscopic, rot proof, do not sustain vermin and will not encourage the growth of fungi, mould or bacteria.

## Environmental

Rocksilks Universal Slabs are free from CFCs, HCFCs and any other material with ozone depletion potential in their manufacture and content and represent no known threat to the environment.

Rocksilks Universal Slab's manufacture has a low impact on the environment and is classified as Zero ODP and Zero GWP.

## Performance

### Thermal

The thermal conductivity of Rocksilks Universal Slabs varies with density from 0.035 to 0.037 W/mK – see table overleaf.

### Fire

Rocksilks Universal Slab is classified as Euroclass A1 to BS EN ISO 13501-1.

## Benefits

- Wide range of densities
- Non-combustible
- Excellent thermal and acoustic properties




## Product Data

Thickness	Thermal conductivity	Thermal resistance	Slab size	Slabs per pack	Area per pack
(mm)	(W/mK)	(m <sup>2</sup> K/W)	(mm)		(m <sup>2</sup> )
<b>RS33</b>					
100	0.037	2.70	1200 x 600	5	3.60
75	0.037	2.00	1200 x 600	7	5.04
60	0.037	1.60	1200 x 600	8	5.76
50	0.037	1.35	1200 x 600	10	7.20
40	0.037	1.05	1200 x 600	12	8.64
<b>RS45</b>					
100	0.035	2.85	1200 x 600	5	3.60
75	0.035	2.10	1200 x 600	6	4.32
60	0.035	1.70	1200 x 600	8	5.76
50	0.035	1.40	1200 x 600	10	7.20
40	0.035	1.10	1200 x 600	12	8.64
30	0.035	0.85	1200 x 600	16	11.52
25	0.035	0.70	1200 x 600	20	14.40
<b>RS60</b>					
100	0.035	2.85	1200 x 600	4	2.88
75	0.035	2.10	1200 x 600	6	4.32
60	0.035	1.70	1200 x 600	7	5.04
50	0.035	1.40	1200 x 600	9	6.48
40	0.035	1.10	1200 x 600	11	7.92
30	0.035	0.85	1200 x 600	14	10.08
25	0.035	0.70	1200 x 600	18	12.96
<b>RS80</b>					
100	0.035	2.85	1200 x 600	3	2.16
75	0.035	2.10	1200 x 600	4	2.88
60	0.035	1.70	1200 x 600	5	3.60
50	0.035	1.40	1200 x 600	6	4.32
40	0.035	1.10	1200 x 600	7	5.04
<b>RS100</b>					
100	0.035	2.85	1200 x 600	3	2.16
75	0.035	2.10	1200 x 600	3	2.16
60	0.035	1.70	1200 x 600	4	2.88
50	0.035	1.40	1200 x 600	5	3.60
40	0.035	1.10	1200 x 600	6	4.32
30	0.035	0.85	1200 x 600	8	5.76
25	0.035	0.70	1200 x 600	10	7.20
<b>RS128</b>					
50	0.035	1.40	1200 x 600	4	2.88
<b>RS140</b>					
100	0.035	2.85	1200 x 600	2	1.44
75	0.035	2.10	1200 x 600	2	1.44
50	0.035	1.40	1200 x 600	3	2.16
40	0.035	1.10	1200 x 600	4	2.88
30	0.035	0.85	1200 x 600	6	4.32
<b>RS200</b>					
50	0.036	1.35	1200 x 600	3	2.16

All dimensions are nominal

## Fire Performance

Rocksilk Universal Slabs are classified as non-combustible to BS 476: Part 4: 1970 (1984) and Euroclass A1, Class 1 Surface Spread of Flame to BS 476: Part 7 1997 and Class  to the Building Regulations.

## Moisture Resistance

Rocksilk Universal Slabs are non-wicking when tested to BS 2972: 1989: Section 12. When exposed to 90% relative humidity at 20°C, Rocksilk Universal Slabs absorb less than 0.004% of moisture.

## Vapour Resistance

Rocksilk Universal Slabs have a vapour resistance of 7.00 MN.s/g.m

## Operating Temperatures

Rocksilk Universal Slabs can be used up to continuous operating temperatures of 850°C. This is dependent on density.

## Handling and Storage

Rocksilk Universal Slabs are easy to handle and install, being lightweight and easy to cut to size.

Rocksilk Universal Slabs are supplied in packs in Supakube pallets. For longer term outside storage (stock or site) the pallets should be stored under a secure waterproof covering.

Rocksilk Universal Slabs should not be left permanently exposed to the elements.

Knauf Insulation Ltd  
PO Box 10, Stafford Road,  
St Helens, Merseyside,  
WA10 3NS

Customer Service (Sales) Tel: 0844 800 0135  
Technical Advisory Centre Tel: 01744 766666  
Literature Tel: 08700 668660  
[www.knaufinsulation.co.uk](http://www.knaufinsulation.co.uk)

For more information please refer to  
[www.knaufinsulation.co.uk](http://www.knaufinsulation.co.uk)

Ref: RD86107



# MATERIAL SAFETY DATA SHEET

## FBS-1 GLASS WOOL INSULATION

### SECTION 1: IDENTIFICATION OF THE MATERIAL AND SUPPLIER

<b>Product Name:</b>	FBS-1 GLASS WOOL INSULATION (CSR)
<b>Other Names:</b>	FBS-1 Glass wool batts, Gold batts, FBS-1 insulation batts, insulation wool, Bradford™, Acousticon™, Acoustilag, Anticon™, Ductwrap™, Flexitel™, Multitel™, Quietel™, Specitel™, Supertel™, Thermatel™, Ultratel™, Building Batts, Building Blanket, Partition Batts, Sectional Pipe Insulation - SPI, Light Appliance, Ductliner, ProTyle, Ceiling Panel Overlay, Comfortseal.
<b>Recommended Use:</b>	Insulation, Thermal and Acoustic Insulation, Building Applications, Appliance applications
<b>Supplier:</b>	CSR BUILDING PRODUCTS LIMITED +/- CSR BRADFORD INSULATION
<b>Address:</b>	9 Help Street, Chatswood NSW 2067, AUSTRALIA
<b>Telephone:</b>	+61 2 9235 8000
<b>Facsimile:</b>	+61 2 235 8044
<b>Website</b>	CSR Bradford Insulation website: <a href="http://www.bradfordinsulation.com.au">www.bradfordinsulation.com.au</a>
<b>Important Notice:</b>	This Material Safety Data Sheet (MSDS) is issued by the Supplier in accordance with the Australian Safety and Compensation Commission ASCC (formerly National Occupational Health and Safety Commission NOHSC) guidelines. As such, the information in it must not be altered, deleted or added to. The Supplier will issue a new MSDS when there is a change in product specifications and/or ASCC guidelines/regulations. The Supplier will not accept any responsibility for any changes made to its MSDS by any other person or organisation.

### SECTION 2: HAZARDS IDENTIFICATION

#### NON-HAZARDOUS SUBSTANCE – NON-DANGEROUS GOOD

**STATEMENT OF HAZARDOUS NATURE:** Not classified as Hazardous according to the criteria of the Australian Safety and Compensation Commission ASCC (formerly National Occupational Health and Safety Commission NOHSC) Approved Criteria For Classifying Hazardous Substances [NOHSC:1008] 3rd Edition. Non-Dangerous Goods under State and Commonwealth legislation. Risk and Safety phrases are not applicable to this product.

### SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Name:	Proportion:	CAS Number:
Fibrous glass	>85%	-
Heat cured resin	<15%	25104-55-6
Mineral oil(solvent refined)	<2%	-

**Other properties:** The fibres and particles are amorphous (non-crystalline). The resin and solvent refined mineral oils bind the fibres and particles together and minimise the release of dusts. The heat cured resin is stable and will remain intact for the life of the product under normal atmospheric conditions.

### SECTION 4: FIRST AID MEASURES

**Swallowed:** Rinse the lips and mouth with water, give water to drink, and seek medical attention.

**Eye:** Flush with copious amounts of water. If symptoms persist seek medical attention.

**Skin:** Sluice with water and, if itching persists, seek medical attention.

**Inhaled:** Remove to fresh air. If symptoms persist seek medical attention.

**Notes to doctor:** This product can be slightly irritating to the skin, but is not known to produce any chronic health effects. Treatment should be directed toward the source of irritation with symptomatic treatment as necessary. Any other symptoms and signs of ill-health are likely to be due to other causes.

## SECTION 5: FIRE FIGHTING MEASURES

**Specific Hazards:** Non flammable. No fire or explosion hazard exists.

**Extinguishing Media:** Use waterfog to cool intact containers and nearby storage areas.

**Fire Fighting Procedures:** If product is present in a fire, toxic gases may be evolved. Evacuate area and contact emergency services. Remain upwind and notify those downwind of hazard. Wear full protective equipment including Self Contained Breathing Apparatus (SCBA) when combating fire.

**Hazardous Decomposition Products:** Resin binders and facings may decompose, smolder or burn in fire situation or if heated over 300 C.

## SECTION 6: ACCIDENTAL RELEASE MEASURES

If product is torn or loose, reseal and minimise fibre release. Personnel directly involved in clean up should wear personal protective equipment as described in Section 8 to prevent skin and eye irritation. Clean area so as to avoid dispersion of any irritant fibres using wet sweep methods or approved micro-filter equipped vacuum cleaner. Reuse where possible or place in a sealable plastic bag for disposal according to local authority guidelines.

## SECTION 7: HANDLING & STORAGE

**Handling:** Handling, installing or removing the product may result in some dust and airborne fibre; minimise eye or skin contact and inhalation during handling, installation and removal. Observe good personal hygiene including washing hands before eating. Remove protective equipment before entering eating areas. FBS-1 glass wool Insulation, once installed, does not release dust or fibres, and does not cause any health effects.

**Storage:** Store in sealed container in cool, dry area, removed from foodstuffs. Ensure packages are adequately labelled, protected from physical damage, and sealed when not in use. Avoid packaging being stored under UV light (direct sunlight) for long periods.

## SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

**Exposure Standards:** Australian Safety and Compensation Commission ASCC (formerly National Occupational Health & Safety Commission NOHSC) Australia Occupational Exposure Standard: None allocated for this product, but for airborne respirable fibres 0.5f/ml time-weighted average (TWA) standard is recommended and a standard of 2.0 mg/cubic metre time-weighted average (TWA) for non-respirable fibres (inspirable dusts). ASCC standards provide that all exposures should be kept as low as practicable. CSR Bradford Insulation anticipates that airborne respirable fibre levels will very rarely exceed 0.5 f/ml in user applications. During most applications and installation of this product, no special ventilation will be required. However, if dusty, or in confined spaces, local exhaust ventilation should be considered. For continuous manufacturing situations using this product the need for ventilation should be evaluated and, where high fibre levels are likely, ventilation systems should be considered. Work practices should aim to minimise the release of, and exposure to, fibres and/or dust. Hand tools that generate the least amount of dust and fibres are recommended. If power tools are used directly on the product appropriate dust collection systems are recommended. Work areas should be cleaned regularly and vacuuming or wet sweeping is recommended.

**Eye Protection:** When handling FBS-1 glass wool Insulation, particularly handling it overhead or in enclosed or poorly ventilated areas such as ceiling spaces or risers, eye contact with dust or fibre can be avoided by wearing dust resistant goggles conforming to Australian and New Zealand Standards AS/NZS 1336.

**Skin Protection:** Direct skin contact can be minimised by wearing normal work clothing, a cap or hat, and standard duty gloves conforming to Australian Standard AS 2161. Work clothes should be washed regularly and separately from other clothes. Bradford Comfortsleeve™ gloves are recommended for improved comfort when handling and installing product.

**Respiratory Protection:** When handling FBS-1 glass wool Insulation, particularly during work in enclosed or poorly ventilated areas, an approved Class 1 particulate respirator conforming to Australian and New Zealand Standards AS/NZS 1715 and 1716 is recommended.

**Personal Hygiene:** Washing of exposed skin with soap and water at the end of a shift or as required is recommended.

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	A matt of yellow fibrous material resembling wool. It is supplied in different shapes and sizes, packaged in plastic or cardboard boxes. It may be rigid or flexible. Facings such as aluminium foil, vinyl, and synthetic tissues are applied to meet specific purposes.
Odour:	Slight amine odour
pH:	Not applicable
Boiling Point:	Not applicable
Melting Point:	> 704°C
Vapour pressure:	Not applicable
Specific gravity (H <sub>2</sub> O = 1):	Variable
Solubility in water:	Insoluble
Evaporation Rate:	Not applicable
Vapour Density:	Not applicable
Percent volatiles:	Very low; <1%
Flash Point:	Not applicable
Decomposition Temperature:	>300°C
Lower/Upper Explosive Limits (LEL/UEL):	Not applicable

## SECTION 10: STABILITY AND REACTIVITY

Chemical Stability:	No reported incompatibilities, however resin binders may be attacked by acidic, alkaline or solvent based substances. The cured resin is stable and will remain intact for the life of the product under normal atmospheric conditions.
Hazardous Polymerisation:	None known
Conditions to avoid:	None known
Hazardous Decomposition products:	None known

## SECTION 11: TOXICOLOGICAL INFORMATION

**Acute Effects:** Products used in high temperature applications (above 177°C) may release gases (CO<sub>2</sub>, formaldehyde, amines) from the resin bonding which are irritating to the eyes, nose and throat during initial heat-up. In confined or poorly ventilated areas, use air supplied respirators during the first heat-up cycle.

**Swallowed:** Unlikely under normal conditions of use, but would result in irritation of the lips, mouth and stomach.

**Eye:** FBS-1 Glass Wool Insulation dust is a mechanical irritant, if it gets into the eyes may cause eye discomfort resulting in watering and redness.

**Skin:** Handling FBS-1 glass wool Insulation and its dust may irritate the skin resulting in itching and occasionally a red rash. The rash is not allergic and usually disappears quickly.

**Inhaled:** The dust may cause discomfort of the nose, throat and respiratory tract, especially in those suffering from upper respiratory or chest complaints such as hay fever asthma or bronchitis.

**Chronic:** There are no known long term health effects. Bradford FBS-1 glass wool Insulation fibres have been tested in laboratory studies according to EC protocols ECB/TM26:27REV.7 1998 and shown to be bio-soluble. Bio-soluble means that any fibres inhaled into the lungs dissolve in body fluids and are then cleared from the lungs. Fibres would comply with the short term bio-persistence test and fulfill the requirements of Australian and international authorities on bio-solubility. ASCC/NOHSC and international authorities do not classify glass wool fibres with high bio-solubility as carcinogenic.



## SECTION 12: ECOLOGICAL INFORMATION

**Ecotoxicity:** Neither the raw materials nor the finished product contain any ozone depleting chemicals. This product is not classified as a hazardous air pollutant.

FBS-1 Glass Wool is bio-soluble and in most ecosystems it would be expected to solubilize over a period of weeks to months. Binder-coated glass wool is hydrophobic, therefore, no adverse environmental effects would be expected if this product were accidentally released in the water or soil. No harm to fish or wildlife would be caused by this product.

## SECTION 13: DISPOSAL CONSIDERATIONS

Place in sealed, appropriately labelled plastic bags and dispose of or in accordance with local authority guidelines. Clean area with micro equipped vacuum or wet sweep. Any waste material should be cleaned up and disposed of in accordance with local authority guidelines. Use protective equipment as described in Section 8 when handling uncontained material.

## SECTION 14: TRANSPORTATION INFORMATION

<b>Transport Requirements:</b>	FBS-1 glass wool Insulation is not regulated as a Dangerous Good. No special transport requirements are necessary.
<b>UN number:</b>	None allocated
<b>Class:</b>	None allocated
<b>Subsidiary Risk:</b>	None allocated
<b>Packing Group:</b>	None allocated
<b>Hazchem code:</b>	None allocated

## SECTION 15: REGULATORY INFORMATION

**Classification:** Classified as Non Hazardous according to ASCC/NOHSC criteria.

Classified as Non Dangerous Goods according to criteria of the Australian Dangerous Goods Code.

**Poisons Schedule:** None allocated.

## SECTION 16: OTHER INFORMATION

**Additional Information and reference documents**

Insulation Council of Australia and New Zealand: [www.icanz.org.au](http://www.icanz.org.au)

Poisons Information Centre 13 11 26 (Australia Wide)

National Code of Practice for the Preparation of Material Safety Data Sheets 2<sup>nd</sup> Edition [NOHSC:2011(2003)], April 2003

National Code Of Practice For The Labelling Of Workplace Substances [NOHSC:2012(1994)], March 1994, Australian Government Publishing Service, Canberra

**Australian Standards References:**

AS/NZS 1336 Recommended practices for occupational eye protection.

AS/NZS 1715 Selection, use and maintenance of respiratory protective devices.

AS/NZS 1716 Respiratory protective devices.

AS/NZS 2161 Occupational protective gloves.

This MSDS was correct at the time it was prepared (see below for the date). The Supplier, as part of its Health and Safety Programme, updates MSDS's when its ongoing review process indicates a need for a change to be made. You should make sure that the MSDS you are reading and relying on is current. You can do this by contacting the Supplier at the above address.

**Issue Date:** September 2005

**MSDS Revision Summary**

**Supersedes Issue Date:** 07/2003

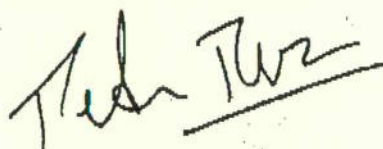
**Reasons for Issue:** Update format

# Fletcher Insulation

## Green Star Emi-9 Insulant ODP Compliance Statement

'Fletcher Insulation avoids the use of ozone depleting substances in both its manufacture and composition of glasswool, polyester and foil products.'

Having an Ozone Depleting Potential of zero allows designers to gain a Green Star Credit while enjoying the significant thermal and acoustic advantages free of the potential for long-term damage to the Earth's stratospheric ozone layer from ozone depleting substances often used in plastic foam manufacture.



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*Serious about energy saving and creating a sustainable future.*



Quality  
Endorsed  
Company  
ISO 9001:2000  
Manufactured under a  
quality system certified  
as complying with ISO 9001  
by an accredited certification body