

ENERGY SAVING THROUGH INSULATION

A licensee of
ISOVER
SAINT-GOBAIN

Burj Khalifa,
Dubai

**NON
CARCINOGENIC**

Rajiv Gandhi
International Airport,
Hyderabad

Reliance Refinery,
Jamnagar

Metro Rail,
Mumbai

**Technical
Submittal**

ROCKINSUL[®]
Stone Wool Insulation

Certifications



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Rockwool India Pvt. Ltd. (RIPL) is the Leading Producer of Stone Wool Insulation in India. It has a manufacturing capacity of 50,000 MT per annum, with manufacturing facilities at Hyderabad and Silvassa. Being a licensee of St Gobain, both plants adopt the latest manufacturing techniques and processes to deliver High-Quality products which serve 'Value' to the Customers. Both the factories are ISO 9001:2015 Certified.

RIPL is the Market Leader in India serving the Domestic market through its various Sales offices. It also caters to the Export market, predominantly to South East Asia and parts of GCC.

RIPL offers a wide range of High-Quality Stone wool insulation products for Thermal, Acoustic, and Fire Safety Applications. The Products Comply with relevant ASTM Standards and Indian Standards (IS).

RIPL is a subsidiary of Alghanim Industries, which is one of the largest privately-owned companies in the Gulf region. It is a Multi-Billion-Dollar Company with more than 30 businesses and operations in 40 Countries. It employs over 60 different Nationalities making it a Multi-national Company in outlook. Alghanim has a Heritage of over 100 years.

OUR BRAND

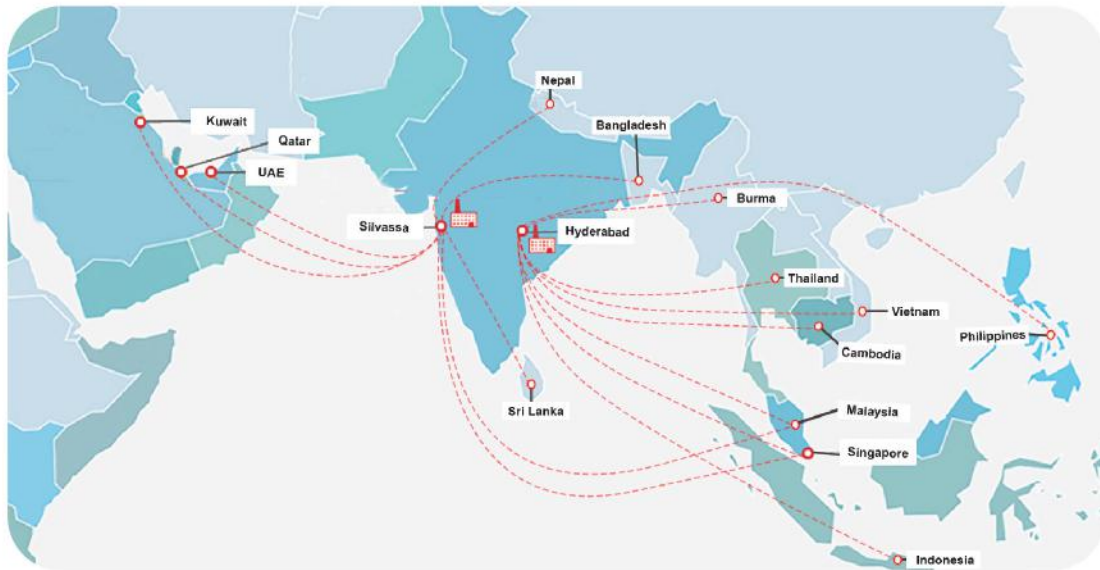
ROCKINSUL[®]

Silvassa



Hyderabad





Few Major Clients



Quality Policy

To be a Major Insulation Provider to the Private, Government, Commercial and Industrial Sectors in India and other Countries by Manufacturing and Supplying Cost-Effective Products for Thermal, Acoustical and Fire-Resistant Applications with a focus on Dominant Market Share, Total Customer Satisfaction, Adequate Profitability to Sustain Growth and, Respect for the Environment by Continual Improvement in Quality through effective Quality Management Systems.

Date: 01/01/2021
Rev. No. 2
Refdoc RIPL/QSM/F



B.S Rao
Chief Executive Officer

ROCKINSUL BUILDING ROLL



Density	: 36, 40, 48, 64 Kg/m ³
Thickness	: 40 -100 mm
Dimensions	: 1.1-1.2 m (width), 5-10 m (length)
Facing & covering	: Unfaced , FSK, ALG & Kraft Paper
Application Fields	: Thermal and acoustic insulation of metal buildings (over and under roof purlins, walls) , porta-cabins and roofs.

TUFFINSUL SLABS



Density	: 40 - 150 Kg/m ³
Thickness	: 25 -150 mm
Dimensions	: 0.6 m (width), 1 or 1.2 m (length)
Facing & covering	: Unfaced
Application Fields	: Thermal insulation where extra rigidity is required such as Sandwich panels, roof and flooring applications.

TUFFINSUL LAMELLA BATS



Density	: 80 - 160 Kg/m ³
Thickness	: 25 -118 mm
Dimensions	: 100-110 mm (width), 0.92-1.2 m (length)
Facing & covering	: Unfaced
Application Fields	: Extra rigid thermal and fire-safety insulation, used as a core material for sandwich panels.

ROCKINSUL ACOUSTIC 6



Thickness	: 50 - 100 mm
Dimensions	: 0.6 m (width), 1 m (length)
Facing & covering	: Unfaced
Application Fields	: Acoustic insulation ideally suited for partition walls.

ROCKINSUL ACOUSTIC THERMAL INSULATION BOARD (ATIB)



Thickness	: 20 - 30 mm
Dimensions	: 590 x 590 mm
Facing & covering	: FSK (one side), BGT (other side) encapsulated solution
Application Fields	: Acoustic insulation for false ceiling overlay applications in airports, hospitals, entertainment malls and commercial complexes.

*All Products are Available with "Water Repellent" Properties

ROCKINSUL LRB MATTRESSES



Density	: 70 - 160 Kg/m ³
Thickness	: 25 -100 mm
Dimensions	: 1.2 m (width), 1.5 -4 m (length)
Facing & covering	: SS or GI hexagonal wire netting (mesh)
Application Fields	: Thermal insulation of high-temperature equipment and pipelines upto 750°C

ROCKINSUL RB SLABS



Density	: 40 - 200 Kg/m ³
Thickness	: 25 -200 mm
Dimensions	: 0.6 m (width), 1 or 1.2 m (length)
Facing & covering	: Unfaced, FSK, ALG and BGT
Application Fields	: Thermal and acoustic insulation of walls, roofs and ceiling overlay in residential and commercial building. Also used for industrial applications, especially where fire safety is required

ROCKINSUL PIPE SECTIONS



Density	: 100 - 150 Kg/m ³
Thickness	: 25 -100 mm
Dimensions	: 1/2"-24" (Nominal Bore)
Facing & covering	: Unfaced, FSK & ALG
Application Fields	: Suitable to Insulate high temperature pipelines in industrial and commercial applications to minimize energy loss during transmission

ROCKINSUL LOOSEWOOL



Thickness	: NA
Dimensions	: NA
Facing & covering	: NA
Application Fields	: Thermal Insulation for 'In-Fill' Applications

*All Products are Available with "Water Repellent" Properties (Except ROCKINSUL Loose Wool)

ROCKINSUL BUILDING ROLLS

Product			
ROCKINSUL Building Rolls is composed of rock fibres processed from the molten state into fibrous form and bonded with an organic binder. Free from Asbestos. Manufactured according to European Certification Board (EUCB) for Mineral Wool Products.			
Characteristic	Units	Quantities and Measured Values	Standard
Dimension	m	Length: 5 m - 10 m, (Tolerance: - 0/+ Excess Permitted)	ASTM C 553
		Width: 1.1 m with overlap & 1.2 m without overlap, (Tolerance: +/- 12.7 mm)	
Thickness	mm	50 - 100 mm (Tolerance: +6 /- 2 mm)	
Density	Kg/m ³	48 - 80 Kg/m ³ (Tolerance: +/- 10%)	
Facing	-	Aluminium Foil (FSK) / Aluglass (ALG)	
Thermal Conductivity* of 48 kg/m ³ , 50 mm thickness, mean temp of 25°C	W/mk	0.035 W/mk	ASTM C177, ASTM C518
Thermal Resistance of 48 kg/m ³ , 50 mm thickness	m ² k/W	1.43 m ² k/ W	-
Service temperature	°C	750 °C (max)	ASTM C411
Melting point	°C	>1000 °C	ASTM E794
Reaction to Fire		Non-Combustible; A1 when tested as per EN 13501	EN 13501-1
Surface Burning Characteristics	-	Flame Spread Index: ≤ 25	ASTM E84 , UL 723
		Smoke Developed Index: ≤ 50	
Water leachable chloride / Corrosiveness	ppm	≤ 10 ppm	ASTM C692, ASTM C871
Fungi Resistance		Does not promote fungi growth	ASTM C1338-00
Non-fibrous Content	%	< 30%	ASTM C1335
Water vapor sorption (Moisture Resistance)	%	< 1% by volume	ASTM C1104, ASTM C1104M
Water absorption (Partial Immersion)	Kg/m ²	< 0.5 Kg/m ²	BS 2972 Part 11
Standard Compliance	ASTM C 553		

Also available with water repellent properties

*One of the Best Values

All information and data mentioned in this technical data sheet are based on tests performed in the Laboratory. Nothing herein to be construed as a warranty or representation.

ROCKINSUL RB SLABS

Product			
ROCKINSUL RB SLABS board insulation is composed of rock fibres processed from the molten state into fibrous form and bonded with an organic binder. Free from asbestos. Manufactured according to European Certification Board (EUCEB) for Mineral Wool Products.			
Characteristic	Units	Quantities and Measured Values	Standard
Dimension	m	Length: 0.6 m - 1.2 m (Tolerance: +/- 13 mm)	ASTM C 612
		Width: 0.6 m (Tolerance: +/- 6.4mm)	
Thickness	mm	25 - 150 mm (Tolerance: +6/- 3 mm)	
Density	Kg/m ³	40 - 200 Kg/m ³ (Tolerance: +/- 10%)	
Facing	-	Aluminium Foil (FSK) / Aluglass (ALG) / Black Glass Tissue (BGT)	-
Thermal Conductivity* of 48 kg/m ³ , 50 mm thick ness, mean temp of 25°C	W/mk	0.035 W/mk	ASTM C177, ASTM C518
Thermal Resistance of 48 kg/m ³ , 50mm thickness	m ² k/W	1.43 m ² k/W	-
Service temperature	°C	750 °C (max)	ASTM C411
Melting point	°C	>1000 °C	ASTM E794
Rigidity	-	Semi rigid to rigid	-
Reaction to Fire	-	Non-Combustible; A1 Classified	EN 13501
Surface Burning Characteristics	-	Flame Spread Index: ≤ 25	ASTM E84, UL 723
		Smoke Developed Index: ≤ 50	
Water leachable chloride / Corrosiveness	ppm	≤ 10 ppm	ASTM C692, ASTM C871
Fungi Resistance		Does not promote fungi growth	ASTM C1338-00
Non-fibrous Content	%	< 25%	ASTM C1335
Water vapor sorption (Moisture Resistance)	%	< 1% by volume	ASTM C1104, ASTM C1104M
Water absorption (Partial Immersion)	Kg/m ²	< 0.5 Kg/m ²	BS 2972 Part 11
Linear Shrinkage	%	2% Max	ASTM C356
Standard Compliance	ASTM C 612		

*One of the best values

Also available with water repellent properties

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ROCKINSUL LRB MATTRESS
Product

ROCKINSUL LRB MATTRESS (Mineral fibre metal-mesh covered blanket) is composed of rock fibres processed from the molten state into fibrous form and bonded with an organic binder and secured with metallic supporting facing. **Free from Asbestos.** Manufactured according to European Certification Board (**EUCEB**) for Mineral Wool Products.

Characteristic	Units	Quantities and Measured Values	Standard
Dimension	m	Length: 1.5m - 4m (Tolerance: +/- 13mm)	ASTM C592
		Width: 1.22 m (Tolerance: +/- 6mm)	
Thickness	mm	25- 100 mm (Tolerance: +/- 6mm)	
Density	Kg/m ³	70 – 160 Kg/m ³ (Tolerance: +/- 10%)	
Facing	-	Unfaced	-
Wiremesh	-	Hexagonal shaped Metal Mesh with GI or SS.	-
		Stitching wire: 0.35mm thick GI or SS.	
Thermal Conductivity of 80 kg/m ³ , 50 mm thickness, mean temp of 50°C	W/mk	0.038 W/mk	ASTM C 177
Service temperature	°C	750 °C (max)	ASTM C 411
Melting point	°C	>1000 °C	ASTM E794
Reaction to Fire		Non-Combustible; A1 when tested as per EN 13501	EN 13501
Surface Burning Characteristics	-	Flame Spread Index: ≤ 25	ASTM E84, UL 723
		Smoke Developed Index: ≤ 50	
Fungi Resistance	-	Does not promote fungi growth	ASTM C1338-00
Water leachable chloride/ Corrosiveness	ppm	≤ 10 ppm	ASTM C692, ASTM C871
Non-fibrous Content	%	<30%	ASTM C 1335
Water vapor sorption (Moisture Resistance)	%	< 1% by volume	ASTM C1104, ASTM C1104M
Water absorption (Partial Immersion)	Kg/m ²	< 0.5 Kg/m ²	BS 2972 Part 11
Linear Shrinkage	%	< 4%	ASTM C356
Standard Compliance	ASTM C 592		

Also available with water repellent properties

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ROCKINSUL PIPE SECTIONS

Product			
ROCKINSUL Pipe Insulation is composed of rock fibers processed from the molten state into fibrous form and bonded with an organic binder. Free from asbestos. Manufactured according to European Certification Board (EUCEB) for Mineral Wool Products.			
Characteristic	Units	Quantities and Measured Values	Standard
Dimension	-	Diameter: ½" – 24" (Tolerance: -0/+ 5 mm)	ASTM C 547
		Length: 1.20 m – 1.25m (Tolerance: +/-3mm) Facing Available for 1.20m Length only	
Thickness	mm	25 - 100mm, Varying as per the diameter of pipes	
Density	Kg/m ³	100 – 160 Kg/m ³ (Tolerance: +/-10%)	
Facing	-	Aluminum Foil (FSK) / Aluglass (ALG)	-
Thermal Conductivity of 100 kg/m ³ , 50 mm thickness, mean temp of 50°C	W/mk	0.037 W/mk	ASTM C 335, C 335M
Service temperature	°C	750 °C (max)	ASTM C 411
Melting point	°C	>1000 °C	ASTM E794
Reaction to Fire		Non-Combustible; A1 Classified	EN 13501
Surface Burning Characteristics	-	Flame Spread Index: ≤ 25	ASTM E84, UL 723
		Smoke Developed Index: ≤ 50	
Fungi Resistance		Does not promote fungi growth	ASTM C1338-00
Water leachable chloride / Corrosiveness	ppm	< 10 ppm	ASTM C692, ASTM C871
Non-fibrous Content	%	< 30%	ASTM C 1335
Water vapor sorption (Moisture Resistance)	%	< 1% by volume	ASTM C1104, ASTM C1104M
Water absorption (Partial Immersion)	Kg/m ²	< 0.5 Kg/m ²	BS 2972 Part 11
Linear Shrinkage	%	< 2%	ASTM C356
Standard Compliance	ASTM C 547		

Also available with water repellent properties

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TUFFINSUL LAMELLA

Product

ROCKINSUL TUFF LAMELLA is composed of rock fibers processed from the molten state into fibrous form and bonded with an organic binder. **Free from Asbestos.** Manufactured according to European Certification Board (**EUCEB**) for Mineral Wool Products.

Characteristic	Units	Quantities and Measured Values	Standard
Dimension	m	Length: 1.0 m - 1.2 m (Tolerance: +/- 13 mm)	ASTM C 612
		Width: Dependent on-board thickness (Tolerance: -2/+5 mm)	
Thickness	mm	25 - 100 mm (Tolerance With one spacer +/- 1 mm and with two spacers +/- 2 mm)	
Density	Kg/m3	80 - 160 Kg/m3 (Tolerance: +/- 10%)	
Facing:	-	Unfaced	-
Compressive Strength 100 kg/m3, 100 mm (L direction)	KPa	> 90	EN 826
Thermal Conductivity of 80 kg/m3, 50 mm, mean temp of 24°C	W/mk	0.035 W/mk	ASTM C 612
Thermal Resistance of 80 kg/m3, 50 mm thickness	m²k/W	1.43 m²k/W	ASTM C 612
Service temperature	°C	750 °C (max)	ASTM C411
Melting point	°C	>1000 °C	ASTM E794
Rigidity	-	Rigid	-
Surface Burning Characteristics	-	Flame Spread Index: ≤ 25	ASTM E84, UL 723
		Smoke Developed Index: ≤ 50	
Water leachable chloride / Corrosiveness	ppm	< 10 ppm	ASTM C692, ASTM C871
Fungi Resistance	-	Does not promote fungi growth	ASTM C1338-00
Non-fibrous Content	%	< 30%	ASTM C1335
Water vapor sorption (Moisture Resistance)	%	< 1% by volume	ASTM C1104, ASTM C1104M
Water absorption (Partial Immersion)	Kg/m2	< 0.5 Kg/m2	BS 2972 Part 11
Linear Shrinkage	%	Max 2%	ASTM C356
Standard Compliance	ASTM C 612		

Also available with water repellent properties

All information and data mentioned in this technical data sheet are based on tests performed in the Laboratory. Nothing herein to be construed as a warranty or representation.

TUFFINSUL RIGID BOARD

Product			
ROCKINSUL TUFF RIGID BOARD Stonewool insulation is composed of rock fibers processed from the molten state into fibrous form and bonded with an organic binder. Free from asbestos. Manufactured according to European Certification Board (EUECB) for Mineral Wool Products.			
Characteristic	Units	Quantities and Measured Values	Standard
Dimension	m	Length: 1.0 m – 2.1 m (Tolerance: +/- 13 mm)	ASTM C 612
		Width: 0.6 m – 1.1 m (Tolerance: +6/-4 mm)	
Thickness	mm	50 - 150 mm (Tolerance: +6/-2 mm)	
Density	Kg/m ³	80 - 160 Kg/m ³ (Tolerance: +/- 10%)	
Facing	-	Aluminium Foil (FSK) / Aluglass (ALG) / Black Glass Tissue (BGT)	-
Compressive Strength 100 kg/m ³ , 100 mm (L direction)	KPa	>90	EN 826
Thermal Conductivity of 80 kg/m ³ @ mean temp of 25°C	W/mk	0.035 W/mk	ASTM C518
Thermal Resistance of 80 kg/m ³ @ 50 mm thickness	m ² k/W	1.43 m ² k/W	-
Service temperature	°C	750 °C (max)	ASTM C411
Melting point	°C	>1000 °C	ASTM E794
Rigidity	-	Rigid	-
Surface Burning Characteristics	-	Flame Spread Index: ≤ 25	ASTM E84, UL 723
		Smoke Developed Index: ≤ 50	
Water leachable chloride / Corrosiveness	ppm	< 10 ppm	ASTM C692, ASTM C871
Fungi Resistance		Does not promote fungi growth	ASTM C1338-00
Non-fibrous Content	%	< 30%	ASTM C1335
Water vapor sorption (Moisture Resistance)	%	< 1% by volume	ASTM C1104, ASTM C1104M
Water absorption (Partial Immersion)	Kg/m ²	< 0.5 Kg/m ²	BS 2972 Part 11
Linear Shrinkage	%	2% Max	ASTM C356
Standard Compliance	ASTM C 612		

Also available with water repellent properties

All information and data mentioned in this technical data sheet are based on tests performed in the Laboratory. Nothing herein to be construed as a warranty or representation.

ROCKINSUL VS SLAGWOOL

S. No	Description	Unit	Specification as per IS 8183 & IS 9842	Specification as per ASTM C 592, ASTM C 547 & ASTM C 612	ROCKINSUL	Slagwool
1	Fibre diameter	Microns	7 (Max)	NA	3.33	5
2	Chloride content	ppm	100	< 20 ppm	≤ 10 ppm	65 (min)
3	Alkalinity	PH	7-10	NA	7.5	9.50
4	Jolting	%	3% (Max)	NA	0.22%	1.50%
5	Sulphur content	%	0.6% (Max)	NA	0.02% (mean)	0.40% (min)
6	Sieve @ 250 microns	%	15% (Max)	< 30% by weight including 150 mic sieves	<ul style="list-style-type: none"> • 9.15% as per IS • Complies to ASTM 	<ul style="list-style-type: none"> • 20% as per IS • Does not Comply to ASTM
	Sieve @ 500 microns		5% (Max)			
7	Recovery after compression	%	90% (Max)	NA	97%	91%
8	Moisture Content	%	2% (Max)	NA	0.08%	1%
9	Moisture absorption	%	2% (Max)	< 5%	0.01%	<ul style="list-style-type: none"> • 1.3% • Does not Comply to ASTM
10	In Combustibility	%	5% (Max)	-	0.21%	3.8%
11	Non-combustibility	-	-	Fire Class A1 as per EN 13501	Fire Class A1 as per EN 13501	No Certification available as per EN 13501
12	Density Tolerance	%	± 15 %	± 10 %	± 10 %	± 15 %
13	Surface finish	-	-	-	Even binder distribution and no Cracking when folded	<ul style="list-style-type: none"> • Slab starts Cracking when folded. • Slabs are rough & uneven binder distribution.
14	Manufacturing Technology	-	-	-	<ul style="list-style-type: none"> • Saint- Gobain ISOVER technology • Certified by EUCEB. 	Local Technology
Conclusion		<ul style="list-style-type: none"> • Rockwool Stonewool is SUPERIOR to Slagwool due to 'no cracking', less fibre diameter, less sulphur content, less chloride content, and less % of shots etc. Long fibres give better bonding. Fibre settlement takes longer time and therefore more life, VALUE FOR MONEY • Rockwool LRB matts/ Pipe Sections / RB slabs are the only Indian brand tested extensively by Indian and International Labs as per IS / BS / ASTM / EN specifications to meet GLOBAL standards. • Our products are EUCEB certified, UL listed, FM approved, has Warrington Fire Certificate and Green building product certification. 				

All information and data mentioned in this technical data sheet are based on tests performed in the Laboratory. Nothing herein to be construed as a warranty or representation.



Certificate of Compliance

This certificate is issued for the following:

ROCKINSUL BUILDING ROLLS AND ROCKINSUL RB SLABS

Prepared for:

**Rockwool (India) Ltd
4th Floor Block B
Laxmi Cyber City
Hyderabad, Andhra Pradesh
India 500084**

FM Approvals Class: 4880

Approval Identification: 3046215 Approval Granted: 11/30/2012

Said Approval is subject to satisfactory field performance, continuing follow-up Facilities and Procedures Audits, and strict conformity to the constructions as shown in the Approval Guide, an online resource of FM Approvals.

For more than 160 years FM Approvals has partnered with business and industry to reduce property losses.

A handwritten signature in dark blue ink that reads "Cynthia E. Frank".

Cynthia E. Frank.
Assistant Vice President, Group Manager
FM Approvals
1151 Boston-Providence Turnpike
Norwood, MA 02062



Member of the FM Global Group

CERTIFICATE OF COMPLIANCE

Certificate Number 2012-July-07-R9703
Report Reference R9703-2012-June-01
Issue Date 2012-July-07

Issued to: KUWAIT INSULATING MATERIAL MFG CO
Behind Mina Abdullah Police Station
P.o.box 10042
Shuaiba, 65451
Kuwait

**This is to certify that
representative samples of**


Rock wool batts and blankets without facings
Density – 36 kg/m³ to 200 kg/m³
Thickness – 25 mm to 150 mm

Have been investigated by UL in accordance with the
Standard(s) indicated on this Certificate.

Standard(s) for Safety: UL Standard for Safety for Test for Surface Burning
Characteristics of Building Materials
UL 723

Additional Information: See the UL Online Certifications Directory at
www.ul.com/database for additional information

Only those products bearing the UL Classification Mark should be considered as being covered by
UL's Classification and Follow-Up Service.

The UL Classification Mark includes: UL in a circle: with the word "CLASSIFIED"  (as shown); a control
number (may be alphanumeric) assigned by UL; a statement to indicate the extent of UL's evaluation of
the product; and the product category name (product identity) as indicated in the appropriate UL
Directory.

Look for the UL Classification Mark on the product.

William R. Carney, Director, North American Certification Programs

UL LLC

Any information and documentation involving UL Mark services are provided on behalf of UL LLC (UL) or any authorized licensee of UL. For questions, please
contact a local UL Customer Service Representative at www.ul.com/contactus



BRE Global Test Report

BS 476 Part 12 test for ignitability of products by direct flame impingement on Rockinsul Slab

Prepared for: Rockwool (India) Ltd
Date: 16 January 2015
Report Number: 301488 Issue: 1

BRE Global Ltd
Watford, Herts
WD25 9XX

Customer Services 0333 321 8811

From outside the UK:
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E enquiries@bre.co.uk
www.bre.co.uk

Prepared for:
Rockwool (India) Ltd
Survey No. 211/2/11,
Village Silli,
Silvassa – 396230,
U.T.: D & NH
India



0578

CERTIFICATE OF APPROVAL No CF 5041

This is to certify that, in accordance with
TS00 General Requirements for Certification of Fire Protection Products
The undermentioned products of

ROCKWOOL INDIA PRIVATE LIMITED

Plot no. 21&22, 1st Floor, Century Building, Rohini Layout,
Madhapur, Hyderabad- 500081, Telangana India

Product manufactured at:

Rockwool (India) Private Limited, Survey No.211/2/1/1, Village-Silli,
Silvassa, UT OF Dadra & Nagar Haveli, 396230 India.

Have been assessed against the requirements of the Technical Schedule(s)
denoted below and are approved for use subject to the conditions
appended hereto:

CERTIFIED PRODUCT

Low Resin Bonded Mattress
(LRB)

TECHNICAL SCHEDULE

TS 70 Mineral Fibre Products

Signed and sealed for and on behalf of Exova (UK) Limited trading as
Warrington Certification



Sir Ken Knight
Chairman
Impartiality Committee



Paul Duggan
Certification Manager



Issued: 1st February 2012
Reissued: 4th May 2017
Next audit test due: 4th November 2017
Frequency: 6 Monthly
Valid to: 3rd May 2022

Page 1 of 2



CERTIFICATE No CF 5041

ROCKWOOL INDIA PRIVATE LIMITED

1. This approval relates to the use of the above construction product. The product has shown a fire performance of Class A1.
2. This approval does not cover other features required of mineral fibre thermal insulation such as durability, thermal conductivity, water absorption etc
3. The approval does not relate to the durability of fire performance if the construction product is used in external applications.
4. The construction product is approved on the basis of:
 - i) Initial type testing
 - ii) Audit testing at the frequency as specified in TS70.
 - iii) Inspection and surveillance of factory production control
 - iv) Certification of quality management systems to ISO 9001:2015
5. This approval is applicable to the following product family....

General description	Mineral wool thermal insulation product
Product reference	Low Resin Bound Mattress (LRB)
Name of manufacturer	Rockwool (India) Private Ltd.
End use thickness	25 - 200 mm
Colour	Grey
Density	70 -200 kg/m ³
Generic type of resin	Phenolic
Product reference of resin	Phenol, Formaldehyde
Amount of resin	0.8 %
Generic type of oil	No oil used
Flame Retardant details	The sponsor stated that no flame retardants are utilised in the production of the product

6. The construction product shall be mounted and fixed in accordance with manufacturers instructions.
7. Markings to the CERTIFIRE design referencing Rockwool (India) Private Limited, CERTIFIRE and CERTIFIRE Ref. No. CF5041 shall be affixed to each construction product in the prescribed position.
8. This approval relates to ongoing production. The product and/or its immediate packaging is identified with the manufacturer's name, the product name or number, the CERTIFIRE name or name and mark, together with the CERTIFIRE certificate number and application where appropriate.

Page 2 of 2 Signed
R/008



Issued: 1st February 2012
Reissued: 4th May 2017
Valid to: 3rd May 2022

CERTIFICATE OF APPROVAL No CF 5042

This is to certify that, in accordance with
TS00 General Requirements for Certification of Fire Protection Products
The undermentioned products of

ROCKWOOL INDIA PRIVATE LIMITED

Plot no. 21&22, 1st Floor, Century Building, Rohini Layout,
Madhapur, Hyderabad- 500081, Telangana India,

Product manufactured at:

Rockwool (India) Private Limited, Survey No.211/2/1/1, Village-Silli,
Silvassa, UT OF Dadra & Nagar Haveli, 396230 India.

Have been assessed against the requirements of the Technical Schedule(s)
denoted below and are approved for use subject to the conditions
appended hereto:

CERTIFIED PRODUCT
Resin Bonded Slab (RBS)

TECHNICAL SCHEDULE
TS 70 Mineral Fibre Products

Signed and sealed for and on behalf of Exova (UK) Limited trading as
Warrington Certification



Sir Ken Knight
Chairman
Impartiality Committee



Paul Duggan
Certification Manager



Issued: 1st February 2012
Reissued: 4th May 2017
Next audit test due: 04/11/2017
Frequency: 6 Monthly
Valid to: 3rd May 2022

Page 1 of 2



CERTIFICATE No CF 5042

ROCKWOOL INDIA PRIVATE LIMITED

1. This approval relates to the use of the above construction product. The product has shown a fire performance of Class A1.
2. This approval does not cover other features required of mineral fibre thermal insulation such as durability, thermal conductivity, water absorption etc
3. The approval does not relate to the durability of fire performance if the construction product is used in external applications.
4. The construction product is approved on the basis of:
 - i) Initial type testing
 - ii) Audit testing at the frequency as specified in TS70.
 - iii) Inspection and surveillance of factory production control
 - iv) Certification of quality management systems to ISO 9001:2015
5. This approval is applicable to the following product family....

General description	Mineral wool thermal insulation product
Product reference	Resin Bound Slab (RBS)
Name of manufacturer	Rockwool (India) Private Ltd.
End use thickness	25 - 200 mm
Colour	Grey
Density	40 -200 kg/m ³
Generic type of resin	Phenolic
Amount of resin	3.5% ± 1.5%
Generic type of oil	Silicon and Saturated Hydrocarbon
Product reference of oil	Water repellent oil and anti dust oil
Amount of oil	0.3% ± 0.1%
Flame Retardant details	The sponsor stated that no flame retardants are utilised in the production of the product

6. The construction product shall be mounted and fixed in accordance with manufacturers instructions.
7. Markings to the CERTIFIRE design referencing Rockwool (India) Private Limited, CERTIFIRE and CERTIFIRE Ref. No. CF5042 shall be affixed to each construction product in the prescribed position.
8. This approval relates to ongoing production. The product and/or its immediate packaging is identified with the manufacturer's name, the product name or number, the CERTIFIRE name or name and mark, together with the CERTIFIRE certificate number and application where appropriate.

Page 2 of 2 Signed
R/008



Issued: 1st February 2012
Reissued: 4th May 2017
Valid to: 3rd May 2022



PSB Singapore

CERTIFICATE OF CONFORMITY

No. CLS2 084690 0003 Rev. 00

Initial No. CLS2 16 06 84690 002

Certificate Holder: Rockwool (India) Limited
Century Building, Plot 21 & 22
1st Floor Opposite Cyber Towers
Rohini Layout
Madhapur
500081 Hyderabad
INDIA

Product: Thermal Insulation Materials

Brand Name: ROCKINSUL

Model(s): ROCKINSUL

Product Details: Classification: Non-Combustible
Density: 48kg/m³ ~ 200kg/m³

Standard(s): BS 476-4:1970

Country of Origin: India

Test Report(s): 7191058279-MEC13-MHA
7191058463-MEC13-MHA

Valid until: 2024-06-27

Page 1 of 1

Issued on: 2019-03-21

Vice-President (Certification Department)
TÜV SÜD PSB



This Certificate is part of a full report and should be read in conjunction with it. This Certificate remains the property of TÜV SÜD PSB Pte Ltd and shall be returned upon request. The use of this Certificate is subjected to TÜV SÜD Group Testing and Certification Regulations, TÜV SÜD PSB Pte Ltd (PSB) General Terms and Conditions of Business and PSB Product Listing Scheme (PLS) Application Fact Sheet. The manufacturer is solely responsible for compliance of any product that has the same designation as the product type-tested. Persons relying on this Certificate should verify its validity by checking TÜV SÜD PSB's website at www.tuv-sud-psb.sg.

TÜV SÜD PSB Pte Ltd • 1 Science Park Drive • Singapore 118221



LESEN PENSIJILAN BARANGAN

Product Certification Licence



SIRIM QAS International Sdn. Bhd. dengan ini menganugerahkan kepada
SIRIM QAS International Sdn. Bhd. hereby grants to

ROCKWOOL (INDIA) PRIVATE LIMITED
1ST FLOOR, CENTURY BUILDING
ROHINI LAY OUT, MADHAPUR
500081 HYDERABAD
TELANGANA, INDIA

Lesen untuk menggunakan Tanda Pensijilan di atas barangan
a licence to use the Certification Mark on

INSULATION MATERIALS (MINERAL WOOL)

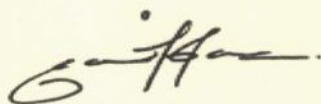
Please refer to detail in the SCHEDULE

sebagai mematuhi keperluan
as complying with

MS 1020 : 2010

BS 476 : PART 6 : 1989 + A1 : 2009

BS 476 : PART 7 : 1997



Mohd Azanuddin bin Salleh
Ketua Pegawai Eksekutif
Chief Executive Officer
SIRIM QAS International Sdn. Bhd.



SIRIM QAS International Sdn. Bhd.
(No. Syarikat 410334-X)
1, Persiaran Dato' Menteri
Seksyen 2, Peti Surat 7035
40700 Shah Alam
Selangor Darul Ehsan
MALAYSIA.

Tel : 60-3-55446400
Faks : 60-3-55446466

<http://www.sirim.my>
<http://www.malaysiancertified.com.my>

Tarikh Mula Pensijilan : 19 August 2015

Certified Since

Sah Sehingga : 19 August 2021

Valid Until

Tarikh Dikeluarkan : 15 September 2020

Issue Date

No Siri : 057823

Serial No

Lesen ini dianugerahkan tertakluk kepada syarat-syarat Perjanjian Pensijilan Barangan SIRIM QAS International Sdn. Bhd.
This Licence is granted subject to the provisions of the Product Certification Agreement of SIRIM QAS International Sdn. Bhd.

SCHEDULE

ROCKWOOL (INDIA) PRIVATE LIMITED



Trade Mark : ROCKINSUL
Model : Slab; ROCKINSUL RB Slab
Rating : Nominal Density: (40 - 120) kg/m³
Fire Propagation Index: 6.9, 3.9, 7.2, 6.8
Surface Spread of Flame: Class 1
Fire Classification: CLASS 0

Type : Rock Wool
Size : Length: 1.2 m, Width: 0.6 m, Thickness: (40 – 100) mm
Test Report No.: 2020CB0288, 2020CB0468, 2020FE0247, 2020FE0248, 2020FE0256, 2020FE0251, 2020FE0249, 2020FE0250, 2020FE0268, 2020FE0269

Trade Mark : ROCKINSUL
Model : Roll; ROCKINSUL LRB Mattress
Rating : Nominal Density: (100, 110, 120) kg/m³
Fire Propagation Index: 5.7, 3.9, 3.6, 2.9
Surface Spread of Flame: Class 1
Fire Classification: CLASS 0

Type : Rock Wool with Wiremesh
Size : Length: (3 – 4) m, Width: (0.6 – 1.2) m, Thickness: (25 – 100) mm
Test Report No.: 2020CB0277, 2020FE0270, 2020FE0271, 2020FE0252, 2020FE0253, 2020FE0272, 2020FE0273, 2020FE0274, 2020FE0275

SIRIM QAS International Sdn. Bhd.
(No. Syarikat 410334-X)
1, Persiaran Dato' Menteri
Seksyen 2, Peti Surat 7035
40700 Shah Alam
Selangor Darul Ehsan
MALAYSIA.

Tel : 60-3-55446400
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Tarikh Mula Pensijilan : 19 August 2015

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SCHEDULE

ROCKWOOL (INDIA) PRIVATE LIMITED



Trade Mark : ROCKINSUL
Model : Roll; ROCKINSUL Buildin Roll
Rating : Nominal Density: (40, 50, 60) kg/m³
Fire Propagation Index: 0.7, 2.2, 3.7, 2.0
Surface Spread of Flame: Class 1
Fire Classification: CLASS 0
Type : Rockwool
Size : Length: 5 m, Width: (1.1 - 1.2) m, Thickness: (50 - 100) mm
Test Report No.: 2016CB2263, 2016CB2259, 2017CB0871, 2020CB0324,
2020CB0469, 2017FE0046, 2017FE0047, 2020FE0255, 2020FE0254, 2017FE0344,
2017FE0345, 2020FE0276, 2020FE0277

TEST REPORT NO. : 2020CB0288, 2020CB0468, 2020FE0247, 2020FE0248,
2020FE0256, 2020FE0251, 2020FE0249, 2020FE0250,
2020FE0268, 2020FE0269, 2020CB0277, 2020FE0270,
2020FE0271, 2020FE0252, 2020FE0253, 2020FE0272,
2020FE0273, 2020FE0274, 2020FE0275, 2016CB2263,
2016CB2259, 2017CB0871, 2020CB0324, 2020CB0469,
2017FE0046, 2017FE0047, 2020FE0255, 2020FE0254,
2017FE0344, 2017FE0345, 2020FE0276, 2020FE0277

Factory Name and Location :
ROCKWOOL (INDIA) PRIVATE LIMITED
SURVEY NO. 211/2/11, VILLAGE SILLI
SILVASSA
UNION TERRITORY OF DADRA & NAGARHAVELI
396230, INDIA

End of page



BCCA

EUCEB CERTIFICATE

BCCA, independent Certification Body designated by the scheme owner EUCEB,
declares that all requirements have been met to attest that the products
to which the right to use the EUCEB Trademark is granted and that are manufactured by

Rockwool India Pvt Ltd

**Plot no. 21 & 22, Century building,, Rohini Layout,
Madhapur,Hydrerabad, IN – 500084, Telangana**

in the plant situated at

Silvassa - Dadra & Nagar Haveli

are made of fibres with a chemical composition that lies within the chemical range of the reference fibre

Mineral Wool TA 09

that has successfully been tested

**in accordance with Note Q of the Regulation (EC) No 1272/2008
of the European Parliament and of the Council as currently in force**

as given in report No 02G00027 of 01-05-2001.

This certificate is granted on the basis of the Implementation Rules TRA-BEUC-511
for EUCEB Certification of mineral wool products.

N° certificate BEUC-511-19863-419-19669 | Valid from 16-10-2020 until 15-10-2023

Furnace(s): 1

Issued in Brussels, on 21 September 2020.

Mr. B. De Blaere,
President of the General Management
Committee for Certification and Approval

The validity of this certificate can be checked on the website www.bcca.be.
Further clarification regarding the scope of this certificate and the applicability
of the requirements may be obtained from the certified organisation.

BELGIAN CONSTRUCTION CERTIFICATION ASSOCIATION NPO

FOUNDERS: BBRI AND SECO

RUE D'ARLON 53, B – 1040 BRUSSELS

TEL. + 32 2 238 24 11

MAIL@BCCA.BE | WWW.BCCA.BE

TEST REPORT: 7191167750-CHM17-MF

Date: 07 AUG 2017

Tel: +65 68851291 Fax: +65 67784301

Client's Ref: 2191064799

Email: huayi.chen@tuv-sud-psb.sg

Note: This report is issued subject to the Testing and Certification Regulations of the TÜV SÜD Group and the General Terms and Conditions of Business of TÜV SÜD PSB Pte Ltd. In addition, this report is governed by the terms set out within this report.



PSB Singapore

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SUBJECT

Heavy Metal Surveillance Test (SGBC) and Asbestos Test

CLIENT

Rockwool India Pvt. Ltd.
1st floor, Century building
Rohini layout
Madhapur
Hyderabad 500081
India

SAMPLE SUBMISSION / TEST DATE

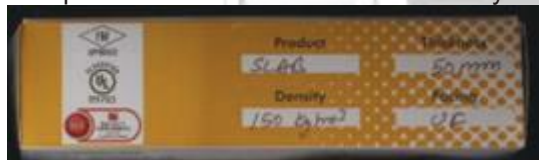
17 Jul 2017 / 17 Jul 2017 – 28 Jul 2017

DESCRIPTION OF SAMPLE

2 samples were submitted for analysis.



Sample 1: ROCKINSUL RB Slabs Density: 48kg/m³



Sample 2: ROCKINSUL RB Slabs Density: 150kg/m³

TEST METHOD

- 1. Energy Dispersive X-ray Fluorescence Spectroscopy (ED-XRF) Chemical Analysis for Cadmium(Cd), Lead (Pb), Mercury (Hg) and Hexavalent Chromium (Cr⁶⁺).**
IEC 62321-3-1: Determination of certain substances in electrotechnical products: Screening electrotechnical products for lead, mercury, cadmium, and total chromium using Energy Dispersive X-Ray Fluorescence Spectrometer.
- 2. Analysis of Asbestos.**
The sample was analysis as per NIOSH Method 9002 - Asbestos (Bulk) by Polarized Light Microscopy.



Laboratory:
TÜV SÜD PSB Pte. Ltd.
No.1 Science Park Drive
Singapore 118221

Phone : +65-6885 1333
Fax : +65-6776 8670
E-mail: enquiries@tuv-sud-psb.sg
www.tuv-sud-psb.sg
Co. Reg : 199002667R

Regional Head Office:
TÜV SÜD Asia Pacific Pte. Ltd.
1 Science Park Drive, #02-01
Singapore 118221
TUV®

RESULTS

Table 1: Results for 'Sample 1'.

Test Parameters	Results (mg/kg)
Cadmium, Cd	Not Detected ^a
Lead, Pb	Not Detected ^a
Mercury, Hg	15
Total Chromium as Cr ⁶⁺	57

^aThe detection limit was 10 mg/kg.

Table 2: Results for 'Sample 2'.

Test Parameters	Results (mg/kg)
Cadmium, Cd	Not Detected ^a
Lead, Pb	Not Detected ^a
Mercury, Hg	12
Total Chromium as Cr ⁶⁺	35

^aThe detection limit was 10 mg/kg.

Table 3: Results for 'Sample 1' and 'Sample 2'.

Test Item	Result (% w/w)
Asbestos	Not Detected ^b

^b The method detection limit for Asbestos was 0.01 % (w/w).

REMARKS

- 1) Pass criteria according to EU RoHS Directive 2011/65/EU.
(Content of Cr⁶⁺, Hg and Pb shall not exceed 1000 mg/kg, content of Cd shall not exceed 100 mg/kg)
- 2) The product complies with SGBC requirement on heavy metal control



MS MELISSA FOONG
CHEMIST
ELEMENTAL ANALYSIS
CHEMICAL & MATERIALS



DR CHEN HUAYI
ASSISTANT VICE PRESIDENT
ELEMENTAL / ENVIRONMENTAL ANALYSIS
CHEMICAL & MATERIALS

TEST REPORT: 7191167750-CHM17-MF
07 AUG 2017



PSB Singapore

Please note that this Report is issued under the following terms :

1. This report applies to the sample of the specific product/equipment given at the time of its testing/calibration. The results are not used to indicate or imply that they are applicable to other similar items. In addition, such results must not be used to indicate or imply that TÜV SÜD PSB approves, recommends or endorses the manufacturer, supplier or user of such product/equipment, or that TÜV SÜD PSB in any way "guarantees" the later performance of the product/equipment. Unless otherwise stated in this report, no tests were conducted to determine long term effects of using the specific product/equipment.
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July 2011



Test Report No. 7191166894-MEC17-HGX
dated 08 AUG 2017



PSB Singapore

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Note: This report is issued subject to the Testing and Certification Regulations of the TÜV SÜD Group and the General Terms and Conditions of Business of TÜV SÜD PSB Pte Ltd. In addition, this report is governed by the terms set out within this report.

SUBJECT:

Melting Temperature of Stone Wool

TESTED FOR:

Rockwool India Pvt Ltd
1st floor, Century building
Rohini layout, Madhapur, Hyderabad- 500081
India.

Attn: Mr. Sathish Vincent

SAMPLES DESCRIPTION:

Two packets of 160 mm x 115 mm x 110 mm stone wool samples (typical as shown below) were submitted by Rockwool India Pvt Ltd on 17 July 2017 for testing.



Photograph of Stone Wool



Laboratory:
TÜV SÜD PSB Pte. Ltd.
No.1 Science Park Drive
Singapore 118221

Phone : +65-6885 1333
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Co. Reg : 199002667R

Regional Head Office:
TÜV SÜD Asia Pacific Pte. Ltd.
1 Science Park Drive, #02-01
Singapore 118221
TUV®



TEST METHOD:

ASTM E794 : 2006 (2012)

Standard Test Method for Melting And Crystallization Temperatures By Thermal Analysis

Specimen weight : 7 mg
Temperature range : Ambient to 1400°C
Atmosphere : N₂
Heating rate : 10°C/min

TEST RESULT:

Sample Description	Melting Temperature, (°C)
Stone Wool	> 1200

REMARK:

DSC thermogram was shown in Figure 1.

Kong Siew Yong
Product Manager

Dr Hu Guangxia
Senior Consultant
Polymer Products
Mechanical Centre

Test Report No. 7191166894-MEC17-HGX
dated 08 AUG 2017



Please note that this Report is issued under the following terms :

1. This report applies to the sample of the specific product/equipment given at the time of its testing/calibration. The results are not used to indicate or imply that they are applicable to other similar items. In addition, such results must not be used to indicate or imply that TÜV SÜD PSB approves, recommends or endorses the manufacturer, supplier or user of such product/equipment, or that TÜV SÜD PSB in any way "guarantees" the later performance of the product/equipment. Unless otherwise stated in this report, no tests were conducted to determine long term effects of using the specific product/equipment.
2. The sample/s mentioned in this report is/are submitted/supplied/manufactured by the Client. TÜV SÜD PSB therefore assumes no responsibility for the accuracy of information on the brand name, model number, origin of manufacture, consignment or any information supplied.
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5. Unless otherwise stated, the tests were carried out in TÜV SÜD PSB Pte Ltd, No.1 Science Park Drive Singapore 118221.

July 2011





ROCKWOOL INDIA PRIVATE LIMITED



HEAD OFFICE: PLOT NO. 21 & 22, SURVEY NO. 64 (PART), ROHINI LAYOUT,
MADHAPUR, HYDERABAD – 500 081, TELANGANA, INDIA.

This is a multi-site certificate, additional site details are listed in the appendix to this certificate

Bureau Veritas Certification Holding SAS – UK Branch certifies that the Management System of the above organization has been audited and found to be in accordance with the requirements of the Management System standard detailed below.

Standard

ISO 9001:2015

Scope of certification

**SALES/MARKETING, PURCHASE, MANUFACTURING AND DESPATCH OF
ROCKWOOL INSULATION FOR THERMAL, ACOUSTICAL AND FIRE
RESISTANT APPLICATIONS
MANUFACTURING AND DESPATCH OF ROCKWOOL INSULATION FOR
THERMAL ACOUSTICAL AND FIRE RESISTANT APPLICATIONS**

Original cycle start date: **04 February 2005**

Expiry date of previous cycle: **03 February 2020**

Recertification Audit date: **13 December 2019**

Recertification cycle start date: **06 January 2020**

Subject to the continued satisfactory operation of the organization's Management System,
this certificate expires on: **03 February 2023**

Certificate No. **IND.19.11407 U** Version : 1 Revision date: **06 January 2020**

Signed on behalf of BVCH SAS – UK Branch
Jagdheesh N. MANIAN
Head – CERTIFICATION, South Asia
Commodities, Industry & Facilities Division



0008

Certification body address: **5th Floor, 66 Prescott Street, London, E1 8HG, United Kingdom.**

Local office: **Bureau Veritas (India) Private Limited (Certification Business)
72 Business Park, Marol Industrial Area, MIDC Cross Road "C",
Andheri (East), Mumbai – 400 093, India.**

Further clarifications regarding the scope of this certificate and the applicability of the management system requirements may be obtained by consulting the organization.
To check this certificate validity please call **+91 22 6274 2000**.



Appendix to the certification

ROCKWOOL INDIA PRIVATE LIMITED



Standard

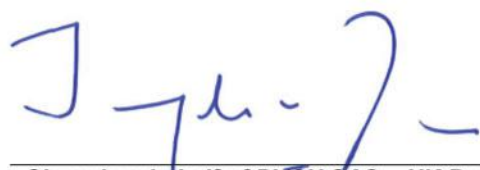
ISO 9001:2015

SITE	ADDRESS	SCOPE
HEAD OFFICE	PLOT NO 21 &22, SURVEY NO. 64 (PART), ROHINI LAYOUT, MADHAPUR, HYDERABAD – 500 081, TELANGANA, INDIA.	SALES/MARKETING, PURCHASE, MANUFACTURING AND DESPATCH OF ROCKWOOL INSULATION FOR THERMAL, ACOUSTICAL AND FIRE RESISTANT APPLICATIONS
KAVELI, ZAHEERABAD, (SITE 1)	KOHIR X-ROADS, KAVELI, ZAHEERABAD, KOHIR MANDAL MEDAK TELANGANA – 502 321, INDIA	MANUFACTURING AND DESPATCH OF ROCKWOOL INSULATION FOR THERMAL ACOUSTICAL AND FIRE RESISTANT APPLICATIONS
SILVASSA (SITE 2)	SURVEY NO: 211/2/1/1, SILLI VILLAGE UNION TERRITORY OF DADRA & NAGAR HAVELI, SILVASSA – 395 230, INDIA.	MANUFACTURING AND DESPATCH OF ROCKWOOL INSULATION FOR THERMAL ACOUSTICAL AND FIRE RESISTANT APPLICATIONS

Certificate No. **IND.19.11407 U**

Version: **1**

Revision date: **06 January 2020**



Signed on behalf of BVCH SAS – UK Branch
Jagdheesh N. MANIAN
Head – CERTIFICATION, South Asia
Commodities, Industry & Facilities Division



0008

Certification body
address:

5th Floor, 66 Prescott Street, London, E1 8HG, United Kingdom.

Local office:

Bureau Veritas (India) Private Limited (Certification Business)
72 Business Park, Marol Industrial Area, MIDC Cross Road "C",
Andheri (East), Mumbai – 400 093, India.

Pg 2 of 2

Further clarifications regarding the scope of this certificate and the applicability of the management system requirements may be obtained by consulting the organization.
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E: sales@exova.com
W: www.exova.com



Testing. Advising. Assuring.

Fungal Resistance Testing of Insulation Material According to ASTM C1338-00

A Report to:	Rockwool India Limited 6-3-856/A/3, New-353, Greenlands Ameerpet, Hyderabad - 500016 India
Attention:	K. Anand
Telephone:	0091 (40) 23400701/03/05/06
Fax:	0091 (40) 234-00709
E-mail:	Kanand@rockwoolindia.com geetha@alghanim.com
Client Reference:	Work Order No.: 102785
Report No.:	09-011-12408 Revision 1 3 Pages
Date:	September 15, 2009

1.0 INTRODUCTION

Rockwool India Limited submitted one sample of ROCKINSUL Building Roll. The sample was given sample identification number 35746 and examined prior to testing. Testing was conducted according to ASTM C 1338-00. This is a 28-day test to determine the relative ability of insulation and its facing to support or resist fungal growth under conditions favorable for their development.

2.0 PROCEDURE

For Method ASTM 1338-08, five fungal cultures are used: Aspergillus niger (American Type Culture Collection ATCC 9642), Aspergillus flavus (ATCC 9643), Aspergillus versicolor (ATCC 11730), Penicillium funiculosum (ATCC 11797), and Chaetomium globosum (ATCC 6205). The cultures were harvested with sterile distilled water to prepare a mixed spore suspension.

The stock cultures were prepared fresh. The viability of each fungal culture was confirmed by inoculation of an appropriate growth media. A cotton control strip and a comparative control (white Birch tongue depressor 20 x 150mm) were inoculated with the mixed spore suspension and incubated with the test specimen. Inoculation with the mixed five fungal spore suspension was accomplished by spraying the suspension in the form of a fine mist from an atomizer. The test materials were sprayed until the initiation of droplet coalescence.

Incubation was at 30 +/-2°C and relative humidity 95+/-4% for 28 days in an Envirotronics environmental chamber model SH27. Incubation conditions were controlled using an Envirotronics Control Module MII#A11786.

Strain controls and the comparative controls were examined after 7 days incubation to confirm the viability of the spore suspension. Sample and controls were evaluated on the 28th day of testing using a binocular stereoscopic microscope and a magnifying glass.

3.0 RESULTS

All fungal strain viability controls and the comparative controls were examined after 7 and 28 days incubation. The controls showed copious amounts of fungal growth indicating a valid fungal resistance test.

Microscopic examination of the test sample after 28 days of incubation showed no fungal growth.

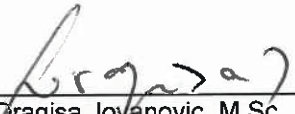
4.0 CONCLUSION

The ROCKINSUL Building Roll material did not support fungal growth when tested according to ASTM C 1338-00, using the no growth criterion for pass/fail. The Insulation Material is rated a pass.

Reported by:


A. J. Horton
Scientist
Health Sciences

Reviewed & Authorized by:


Dragisa Jovanovic, M.Sc.
Manager, Pharmaceutical Chemistry
Health Sciences


This report and service are covered under Exova Canada Inc's. Standard Terms and Conditions of Contract which may be found on our company's website www.exova.com, or by calling 1-866-263-9268.

Dr Prem C Jain
Chairman
Indian Green Building Council

TO WHOMSOEVER IT MAY CONCERN

This is to certify that **M/s Rockwool (India) Ltd.** is one of the Members of
Indian Green Building Council (IGBC) under the category: **Founding Member,**
Since **25 November 2009.**

M/s Rockwool (India) Ltd. membership number is
"IGBC - FM - 1075".


Prem C Jain



SINGAPORE GREEN BUILDING PRODUCT CERTIFICATE

AWARDED TO

Rockwool India Pvt Ltd

1st floor, Century Building,
Plot No 21 & 22 Rohini layout, Madhapur,
Hyderabad-500081, Telangana, India

FOR THE PRODUCT

THERMAL INSULATION – STONE WOOL

PRODUCT BRAND

ROCKINSUL

PRODUCT MODEL

ROCKINSUL RB Slabs
40kg/m³ 50-200mm

THE PRODUCT HAS BEEN ASSESSED ACCORDING
TO THE ASSESSMENT CRITERIA OF THE SINGAPORE
GREEN BUILDING PRODUCT CERTIFICATION SCHEME.
IT HAS BEEN AWARDED THE RATING :

Director
SGBC Pte Ltd



Certificate Number

SGBP 2019-2796

Original Issue Date

23rd August 2019

Last Revision Date

-

Valid Till

22nd August 2021

✓ Good ✓✓ Very Good ✓✓✓ Excellent ✓✓✓✓ Leader

The use and reliance on this certificate is subject to the terms and conditions of the Singapore Green Building Product Certification Scheme. Revised certificates may also be issued at the discretion of the Council. The certification status may be verified at the Singapore Green Building Council website (www.sgbc.sg).





SINGAPORE GREEN BUILDING PRODUCT CERTIFICATE

AWARDED TO

Rockwool India Pvt Ltd

1st floor, Century Building,
Plot No 21 & 22 Rohini layout, Madhapur,
Hyderabad-500081, Telangana, India

FOR THE PRODUCT

THERMAL INSULATION – STONE WOOL

PRODUCT BRAND

ROCKINSUL

PRODUCT MODEL

ROCKINSUL RB Slabs
48kg/m³ 50-200mm

THE PRODUCT HAS BEEN ASSESSED ACCORDING
TO THE ASSESSMENT CRITERIA OF THE SINGAPORE
GREEN BUILDING PRODUCT CERTIFICATION SCHEME.
IT HAS BEEN AWARDED THE RATING :

Director
SGBC Pte Ltd



Certificate Number

SGBP 2019-2797

Original Issue Date

23rd August 2019

Last Revision Date

-

Valid Till

22nd August 2021

✓ Good ✓✓ Very Good ✓✓✓ Excellent ✓✓✓✓ Leader

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SINGAPORE GREEN BUILDING PRODUCT CERTIFICATE

AWARDED TO

Rockwool India Pvt Ltd

1st floor, Century Building,
Plot No 21 & 22 Rohini layout, Madhapur,
Hyderabad-500081, Telangana, India

FOR THE PRODUCT

THERMAL INSULATION – STONE WOOL

PRODUCT BRAND

ROCKINSUL

PRODUCT MODEL

ROCKINSUL RB Slabs

60kg/m³ 25-150mm

THE PRODUCT HAS BEEN ASSESSED ACCORDING
TO THE ASSESSMENT CRITERIA OF THE SINGAPORE
GREEN BUILDING PRODUCT CERTIFICATION SCHEME.

IT HAS BEEN AWARDED THE RATING :

Director
SGBC Pte Ltd



Certificate Number

SGBP 2019-2798

Original Issue Date

23rd August 2019

Last Revision Date

-

Valid Till

22nd August 2021

✓ Good ✓✓ Very Good ✓✓✓ Excellent ✓✓✓✓ Leader

The use and reliance on this certificate is subject to the terms and conditions of the Singapore Green Building Product Certification Scheme. Revised certificates may also be issued at the discretion of the Council. The certification status may be verified at the Singapore Green Building Council website (www.sgbc.sg).





SINGAPORE GREEN BUILDING PRODUCT CERTIFICATE

AWARDED TO

Rockwool India Pvt Ltd

1st floor, Century Building,
Plot No 21 & 22 Rohini layout, Madhapur,
Hyderabad-500081, Telangana, India

FOR THE PRODUCT

THERMAL INSULATION – STONE WOOL

PRODUCT BRAND

ROCKINSUL

PRODUCT MODEL

ROCKINSUL RB Slabs

80kg/m³ 25-150mm

THE PRODUCT HAS BEEN ASSESSED ACCORDING
TO THE ASSESSMENT CRITERIA OF THE SINGAPORE
GREEN BUILDING PRODUCT CERTIFICATION SCHEME.
IT HAS BEEN AWARDED THE RATING :

Director
SGBC Pte Ltd



Certificate Number

SGBP 2019-2799

Original Issue Date

23rd August 2019

Last Revision Date

-

Valid Till

22nd August 2021

✓ Good ✓✓ Very Good ✓✓✓ Excellent ✓✓✓✓ Leader

The use and reliance on this certificate is subject to the terms and conditions of the Singapore Green Building Product Certification Scheme. Revised certificates may also be issued at the discretion of the Council. The certification status may be verified at the Singapore Green Building Council website (www.sgbc.sg).





SINGAPORE GREEN BUILDING PRODUCT CERTIFICATE

AWARDED TO

Rockwool India Pvt Ltd

1st floor, Century Building,
Plot No 21 & 22 Rohini layout, Madhapur,
Hyderabad-500081, Telangana, India

FOR THE PRODUCT

THERMAL INSULATION – STONE WOOL

PRODUCT BRAND

ROCKINSUL

PRODUCT MODEL

ROCKINSUL RB Slabs
100kg/m³ 25-150mm

THE PRODUCT HAS BEEN ASSESSED ACCORDING
TO THE ASSESSMENT CRITERIA OF THE SINGAPORE
GREEN BUILDING PRODUCT CERTIFICATION SCHEME.
IT HAS BEEN AWARDED THE RATING :

Director
SGBC Pte Ltd



Certificate Number

SGBP 2019-2800

Original Issue Date

23rd August 2019

Last Revision Date

-

Valid Till

22nd August 2021

✓ Good ✓✓ Very Good ✓✓✓ Excellent ✓✓✓✓ Leader

The use and reliance on this certificate is subject to the terms and conditions of the Singapore Green Building Product Certification Scheme. Revised certificates may also be issued at the discretion of the Council. The certification status may be verified at the Singapore Green Building Council website (www.sgbc.sg).





SINGAPORE GREEN BUILDING PRODUCT CERTIFICATE

AWARDED TO

Rockwool India Pvt Ltd

1st floor, Century Building,
Plot No 21 & 22 Rohini layout, Madhapur,
Hyderabad-500081, Telangana, India

FOR THE PRODUCT

THERMAL INSULATION – STONE WOOL

PRODUCT BRAND

ROCKINSUL

PRODUCT MODEL

ROCKINSUL RB Slabs
150kg/m³ 25-150mm

THE PRODUCT HAS BEEN ASSESSED ACCORDING
TO THE ASSESSMENT CRITERIA OF THE SINGAPORE
GREEN BUILDING PRODUCT CERTIFICATION SCHEME.
IT HAS BEEN AWARDED THE RATING :

Director
SGBC Pte Ltd



Certificate Number

SGBP 2019-2801

Original Issue Date

23rd August 2019

Last Revision Date

-

Valid Till

22nd August 2021

✓ Good ✓✓ Very Good ✓✓✓ Excellent ✓✓✓✓ Leader

The use and reliance on this certificate is subject to the terms and conditions of the Singapore Green Building Product Certification Scheme. Revised certificates may also be issued at the discretion of the Council. The certification status may be verified at the Singapore Green Building Council website (www.sgbc.sg).



DATE : 2019-08-21 : التاريخ
PERMIT PAC19009576 : رقم الطلب



وزارة الداخلية
الإدارة العامة للدفاع المدني
إدارة الوقاية

TECHNICAL REPORT

التقرير الفني

PRODUCT :	Insulation Materials (Rockwool, Thermal insulators etc)	المنتج :
PRODUCT APPLICATION :	Fire Rated and Retardant materials	تصنيف المعدة :
APPLICANT / P.O .Box	شركه قطر للعوازل	مقدم الطلب :
MANUFACTURER / LOCATION :	ROCKWOOL INDIA PRIVATE LIMITED / INDIA	الشركة المصنعة / بلد الصنع :

الوصف	الموديل
Mineral wool thermal insulation product. Thickness: 25 - 200 mm Fire performance: Class A1	Resin Bonded Slab (RBS)

3RD PARTY CERTIFICATE / APPROVAL :	CF 5042 - CERTIFIRE - WARRINGTO N	شهادة المختبرات المساندة (من هيئات معتمدة) :
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RECOMMENDATIONS

التوصيات

NOTES / STANDARDS

www.qinsulation.com

The approval does not relate to the durability of fire performance if the construction product is used in external application and in smoke and heat ventilation system.

Tested to standards TS 70 Mineral Fbre Products (Certifire).

This product approval shall comply with the NFPA 80 (and/or other related NFPA Codes / Standards), other acceptable International Codes / Standards, Local Regulations, Listing Instructions and/or Manufacturer's Published Instructions subject to the technical review and approval of the Authority Having Jurisdiction / Qatar Civil Defence.

مدير إدارة الوقاية
الإدارة العامة للدفاع المدني

/ع





التاريخ : 2020-06-11
رقم الطلب : PERMIT # PAC20005109

TECHNICAL REPORT

التقرير الفني

PRODUCT	Insulation Materials (Rockwool, Thermal insulators etc)	منتج
PRODUCT APPLICATION	Fire Rated and Retardant materials	تصنيف المعدة
APPLICANT / P.O BOX	شركة قطر للعوازل	مقدم الطلب
MANUFACTURER / LOCATION	ROCKWOOL INDIA PRIVATE LIMITED / INDIA	الشركة المصنعة / بلد الصنع
الوصف		الموديل
Low Resin Bonded Mattress (B), Mineral Wool Thermal Insulation Product, Thickness: 25-200mm, Density: 70-200 kg/cu.m., Generic type of resin: Phenolic, Class A1		LRB
3RD PARTY CERTIFICATE / APPROVAL	CF 5041 CERTIFIRE - WARRINGTON	شهادة المختبرات المساندة (من هيئات معتمدة)
RECOMMENDATIONS		التوصيات

STANDARD: BS EN 13501-1

NOTE: This product approval shall comply with the Design, Inspection, Installation, Testing and Maintenance requirements of NFPA 5000 (and/or other related NFPA Codes / Standards), other acceptable International Codes / Standards, Local Regulations and/or Manufacturer's Published Instructions subject to the technical review and approval of the Authority Having Jurisdiction / Qatar Civil Defence.

Qatar Insulation
Company
P.O. Box 7943, Doha - Qatar
Tel: 4499 5077, Fax: 4499 5088

مدير إدارة الوقاية
الإدارة العامة للدفاع المدني



THANK YOU

Rockwool India Private Limited

1st Floor, Century Building,
Plot No.1 21&22, Rohini Layout,
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A subsidiary of
Alghanim
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