



Australasian Insulation Supplies Pty Ltd

Industrial • Marine • Commercial • Residential | Thermal • Fire • Acoustic

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PRODUCT DATA SHEET

Version: 13 May 2013 Amd 1

Material
Type
Product

Rock(stone)wool by ROCKWOOL®

Granulate

EnergySaver



Description: A specific purpose water resistant rock(stone)wool manufactured to produce a controlled granulate structure that, when installed into wall cavities, will not diminish the moisture resistance of the wall and allows the cavity to breathe.

Application: Creating a continuous cavity insulation barrier in masonry and framed wall construction in new and existing buildings that does not affect cavity permeability.

The granulate is “blown” into built cavities using approved, specialist equipment. There are no extra over wall design or construction requirements, trade productivity is improved because there is no installation down-time, and the installed compliance warranty removes the risk of making good or re-work.

Performance is not affected by dust contamination. The product will not react with other materials, degrade in severe exposure locations, or promote or sustain termite infestation.

Associated documents: EnergySaver compliance set [1].

Properties		Performance [at a 40 kg/m ³ (nominal) installed density]	Code or Standard[2]
Thermal	Conductivity (declared)	K value: 0.038 W/m.K	AS/NZS 4859.1
	Resistance	Cavity Width (mm) 50 65 70 90 100 140	
		R-Value (m ² .K/W) 1.32 1.71 1.84 2.37 2.63 3.68	
	Specific heat	0.84 kJ/kg.K at 20°C.	
Aging (8-10 years)	No performance loss.		
Fire	Combustibility	Non-combustible.	BCA Vol 1 – C1.2 BCA Vol 2 – 3.7.1.2 ASTM E-136-82 BS 476 Pt 4 ISO 1182 IMO A 799 (19)
	Reaction to fire	European reaction to fire classification: A1.	EN 13501.1
	Resistance to fire	FRL – will not diminish the performance of cavity masonry.	Expert judgement
		Bushfire – suitable for use in BAL Low to BAL 40.	AS 3959
	Auto ignition temp	Does not occur.	
	Flash point ignition temp	Does not occur.	
	Melting temp	Over 1000°C (1800°F).	DIN 4102
	Max service temp	200°C (390°F).	ASTM C411
	Smoke growth rate index	Less than 250m ² /kg.	
	Calorific value	600 kJ/kg (approximate).	
	Fire load	1.2 MJ/m ³	
	Fire hazard indices	Ignitability: 0, Spread of flame: 0, Heat evolved: 0, Smoke developed: 0	AS/NZS 1530.3
	Smoke growth rate	Negligible/very low.	
	Fire growth rate	Does not occur.	
Flashover	Ignition source: 100kW – does not occur, 300 kW – does not occur.	AS/NZS 9705	
Fire retardant additives	None used.		
Mechanical	Shrinkage/settlement	Approved for a continuous cavity height up to 12m.	BBA Certificate
	Durability	Shown to have a +50 year service life in all types of exposure.	
Chemical	pH value	Aqueous extracts of fibres is neutral (pH 7-9) or slightly alkaline, will not cause or promote corrosion.	
	Chlorides	Acceptable levels of water leachable chlorides, sodium and silicate for use with stainless steel.	ASTM C795
	Compatibility	Compatible with typical industrial and building materials.	
Biological	Contains no nutrients and will not promote the growth of fungi, moulds bacteria or attract insects, rodents or vermin.		

Moisture	Water resistance	Hydrophobic, highly water resistant, water repellent.	
	Water absorption	0.2kg/m ² (partial immersion test), equivalent to 2mm deep surface wetting.	BS 2972 Section 12
	Water vapour absorption (from air)	At a relative humidity of 95% for 96 hour the hygroscopic water content is around 0.004 volume per cent. Water vapour absorption (vapour sorption) for the nominated standard is +0.02% (vol).	ASTM C1104/C 110 M
	Capillary action	Capillary resisting, will not draw water up or into to bulk material (wick).	
	Vapour permeability	Water vapour diffusion resistance factor: 5 MN.s/g, $\mu \leq 1.3$	AS/NZS 4548.5 EN 13469 DIN 4108.4
Sound	Transmission (wall)	Will not improve or degrade the performance of an otherwise compliant unfilled cavity masonry wall.	AS/NZS 1276.1 ISO 717.1
	Absorption (material)	Likely to reduce sound reverberation along the cavity.	EN ISO 11654 ISO 354
	Airflow resistance	11kNs/m ⁴	ISO 9053
Physical	Installed density	40kg/m ³ (nominal)	Test box sampling
	Weight per m2	2kg/m ² (nominal) for a 50mm cavity width.	
Environment	Manufacturing, recycling, use, service life and energy efficiency performance provides a low ecological footprint. No CFC's or HCFC's are used in the manufacturing process.		

Health and safety

Over 60 years of health research has now concluded that there are no long-term health problems from using rock(stone)wool.

In March 1995 the UK Health and Safety Executive concluded that rock(stone)wool should not be classified as a potential carcinogen. Under the World Health Organisation (WHO) and its Monographs Programme of the International Agency for Research on Cancer (IARC) rock(stone)wool is classified as Group 3 (not classifiable as to its carcinogenicity in humans [3]).

It is recommended that for the handling and installation of rock(stone)wool the internationally recognised Safety Data Sheet (SDS) be followed (contact AIS or download from the AIS website).

Technical support

AIS can provide thermal resistance (R-Value) calculations for insulated building systems as well as information on any other matter related to insulation and product manufacture.

Notices

Original	08 March 2013	
Amd No.	Date	Description
1	13 May 2013	Editorial changes to improve clarity, note added to reference EnergySaver Compliance Set.

[1] EnergySaver Compliance Set: Product technical statement, Product data sheet (this document), Product performance assessment and Construction code review.

[2] When tested to the Code or Standard nominated, the product will provide a performance equal to or better than the performance properties shown.

[3] IRAC working group in Man-Made Vitreous Fibres, Volume 81 of the AIRC Monographs, Lyon, 9-16 October 2001.

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