



# ECOWOOL BROWNIE®

## RigiSlab®

### DESCRIPTION

BROWNIE® RigiSlab®, the formaldehyde free range of glass mineral wool insulation manufactured by PGF Insulation employs formaldehyde free binder that is free of formaldehyde, phenol or any other artificial chemicals.

Once installed, BROWNIE® RigiSlab® acts as a highly effective barrier to heat flow, keeping your building cool during hot weather. It combines cost efficiency with the highest standard of insulation performance when installed in either timber or steel frame dry wall system applications.

### FORMALDEHYDE FREE

Formaldehyde has traditionally been used as part of the binder in glass mineral wool insulation. Although there is no health risk with the traditional insulation, formaldehyde at higher level may cause irritation and sensitivity. PGF Insulation formaldehyde free insulation utilises an innovative new binder that eliminates binder-related formaldehyde emissions. Once installed, will not off-gas formaldehyde in the indoor environment.

BROWNIE® RigiSlab® is tested in Air Quality Services and the product emission for formaldehyde & VOCs passed the GREENGUARD Children & Schools Criteria.

### THERMAL INSULATION OF CONCRETE SOFFITS

RigiSlab® Soffit Liner is a specially designed thermal insulation used for enhancing the thermal performance of concrete soffits for commercial, residential and other applications where air-conditioned rooms are situated next to non-air-conditioned spaces. The layer of RigiSlab® Soffit Liner will provide thermal insulation, whilst the foil layer acts as a vapour barrier.

### ADVANTAGES

**Improves Indoor Air Quality.** Formaldehyde free binder reduces the overall formaldehyde exposure. Satisfying the growing indoor air quality (IAQ) needs, formaldehyde free insulation means a better smelling indoor environment and less formaldehyde in the air.

**Sustainable Product.** PGF Insulation uses no ozone depleting products (ODP) in manufacture and has low volatile organic compounds (VOCs) content.

**Optimal fibre diameter.** Optimal fibre diameter produces more air chamber which enables the insulation to provide a better and enhanced performance.

**Better fibre network.** Fine, longer and evenly distributed fibre network helps in creating better tensile strength allowing the insulation to demonstrate superior durability, flexibility and feeling much softer.

**Less dusty and less itchy.** Specifically engineered to produce a comfortable and less dusty insulation. The insulation creates a pleasant work experience by reducing the tingling feeling during installation.

**Corrosiveness.** Chemically inert. Will not cause or accelerate corrosion of steel, stainless steel, copper or aluminum due to its specifically inorganic and mineral composition. Tested in accordance with ASTM C665-12.

**Mould Growth.** Does not encourage growth of mould, fungus, bacteria or rodents. Tested in accordance with ASTM C1338-08.

**Water Vapor Absorption.** Absorbs less than 5% by weight. Tested in accordance with ASTM C1104.

**Odor Emission.** Does not emit any unpleasant odor. Tested in accordance with ASTM C1304.

### SGBLS ASSESSED

BROWNIE® RigiSlab® was assessed according to the evaluation criteria of Singapore Green Buildings Product Labeling Scheme.

### MSI020:2010 CERTIFIED

BROWNIE® is MSI020:2010 compliant product. The certification is accredited by SIRIM QAS.

### CIDB CERTIFIED

BROWNIE® is certified by CIDB according to Section VIIA CIDB Act (2011 Amendment). Please contact PGF Insulation representative for further information.

### INDIVIDUAL VOLATILE ORGANIC COMPOUNDS (VOCs) EMISSION

BROWNIE® RigiSlab® is safe to use due to the low VOC content. Tested in accordance with ASTM D 5116. Please contact PGF insulation sales representative for more information.

### FIRE PROPERTIES

Tested in accordance with:

- BOMBA Class "O"
- B.S. 476: Part 4 Non-combustibility
- B.S. 476: Part 6 Fire propagation
- B.S. 476: Part 7 Surface spread of flame
- ASTM E84

### THERMAL CONDUCTIVITY

Tested and complies with ASTM C518 at 20°C mean temperature. Please refer to the below table for more information on the thermal resistance values.

Type	Density (kg/m <sup>3</sup> )	K- Value (W/m K)	R- Value (m <sup>2</sup> K/W)
RigiSlab®	20	0.0346	1.44

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RigiSlab® Soffit Liner contributes to Green Building Index (GBI) requirements, significantly improving the energy efficiency of the ceiling.

This solution also aids compliance to MS 1525 Energy efficiency and use of renewable energy for non-residential buildings - Code of practice. Please contact PGF Insulation representative regarding insulation thicknesses relating to typical ceiling constructions.

### ACOUSTICAL PERFORMANCE

Not only an effective thermal insulation, RigiSlab® acts as a natural and effective sound barrier. RIGISLAB is amongst the most effective acoustic insulation solutions when sound proofing is required. Refer to the below table for the sound absorption coefficient values.

Frequency (Hz)	125	250	500	1000	2000	4000
Absorption	0.37	0.63	1.13	1.11	1.03	1.03

RigiSlab® Soffit Liner has the noise reduction coefficient (NRC) calculated to ASTM C423-09a of NRC 1.00.

### PRODUCTS AVAILABLE

Type	Density (kgm <sup>-3</sup> )	Thickness (mm)	Width (m)	Length (m)
RigiSlab®	20	50	0.6	1.2

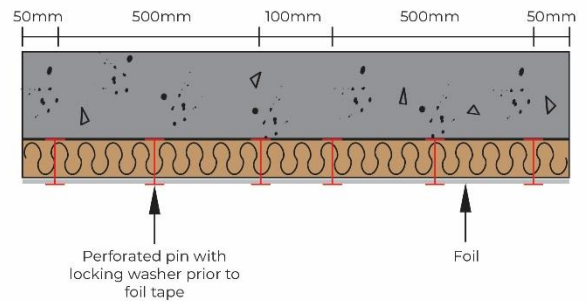
### AVAILABLE FORM

RigiSlab® Soffit Liner comes as standard a foil facing one side. It is also available faced with black woven glass fabric.

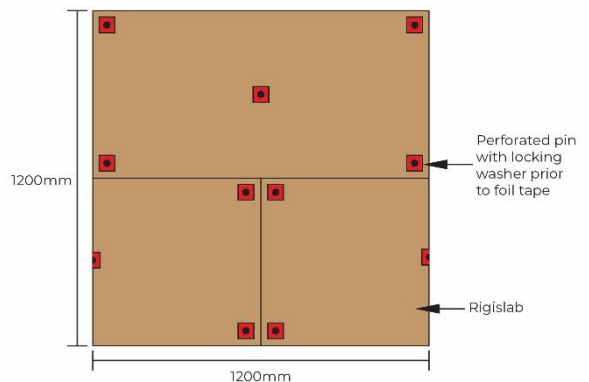
### INSTALLATION

The RigiSlab® Soffit Liner slabs are laid lengthways to the longest wall, in a staggered joint pattern, foil face downwards. The offcut at one end of the first row is then used to start the next row and similarly with subsequent rows.

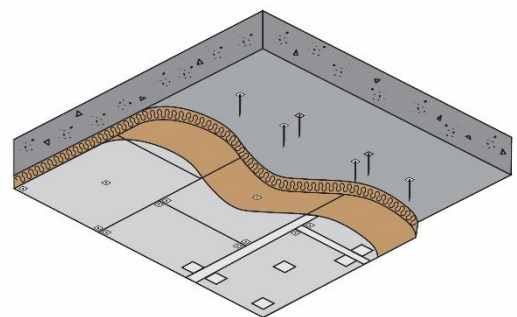
The RigiSlab® Soffit Liner is installed using adhesively attached perforated pins to the concrete soffit or wall using 5 pins per 1200 x 600mm sheet as per the following drawing. All joints and penetrations through the vapour barrier are sealed with foil tape or silicone sealant with foil tape finish for drop rods.



600mm wide RigiSlab fixing detail direct to concrete soffit - elevation view



600mm wide RigiSlab fixing detail direct to concrete soffit - plan view



Foil tape applied to all RigiSlab to slab joints and pins c/w locking washers to create a vapour tight seal.

Technical specifications as shown in this literature are intended to be used as general guidelines only. The physical and chemical properties of glass mineral wool insulation listed herein represent typical average values obtained in accordance with accepted test methods and are subject to normal manufacturing variations. They are supplied as a technical service and are subject to change without notice. Any references to numerical flame spread or smoke developed ratings are not intended to reflect hazards presented by these or any other materials under actual fire conditions. The suitability of the product is not binding for special individual cases. Warranty and liability upon delivery shall be in accordance with our General Terms and Conditions. No responsibility is assumed for the correctness of this information. Version of 1<sup>st</sup> May 2016.

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