

ECOWOOL® Brownie V2 roof blanket

ECOWOOL® BROWNIE V2 roof blanket, the environmentally friendly range of ECOWOOL® glass mineral wool insulation, manufactured by PGF Insulation is made for fire safety, thermal and acoustic insulation application. It is manufactured using up to 80% of recycled glass and incorporates the new SensiTouch Technology, featuring an improvised version of the binding technology of ECOWOOL® BROWNIE V2. The glass mineral wool insulation blanket range covers multiple densities, thicknesses and dimensions to suit typical construction applications and to fulfil a broad spectrum of building requirements.

Once installed, ECOWOOL® BROWNIE V2 roof blanket acts as a highly effective barrier to heat flow, keeping your building warm during cold weather and cool during hot weather. It combines cost efficiency with the highest standard of insulation performance when installed in the buildings.

SensiTouch TECHNOLOGY

Ultra low VOC (volatile organic compound) emission. Innovative new binding technology that incorporates a natural anti-formaldehyde ingredient and is ultra low in VOC. Compliant with Singapore Green Building Council (SGBC) and Environmental Choice TVOC and Formaldehyde emission criteria. Tested in accordance with ASTM D 5116.

Firm product for an ease of installation. Exceptional stiffness and recovery characteristics, making it a preferred choice for the insulation installers out there.

Soft touch less itch. New binder formula with improvised manufacturing technology that produces skin-friendly fibres to minimize allergic reaction during product handling and installation



APPLICATION

Application focused, it combines cost efficiency with the highest standard of insulation performance when installed under metal deck roof or clay tiles roof. The insulation acts as a highly effective barrier to heat flow, keeping your building cool during hot weather and conserving the cool air indoors.

FEATURES AND BENEFITS

Improves indoor air quality. SensiTouch technology incorporate with natural anti-formaldehyde binder reduces the overall formaldehyde expose. Satisfying the growing indoor air quality (IAQ) needs.

Sustainable product. PGF Insulation is committed to providing environmentally sustainable products. ECOWOOL® BROWNIE V2 roof blanket is free from CFCs, HCFCs and any other material, with ozone depletion, potential in their manufacture/composition content, and represent no known threat to the environment. Made from nearly 80% recycled glass and locally sourced raw materials, the glass mineral wool insulation is perfectly in tune with sustainability and environmental concerns.

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

Brownie



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

Absorbs disturbing sound. Exceptional sound-absorbing properties. Specially designed to reduce transmission of unwanted noise through roof in industrial, residential and commercial buildings. Tested in accordance with ISO 140-3:1995. Please contact PGF insulation sales representative for more information on the transmission loss for metal deck roof system.

Individual volatile organic compounds (VOCs) emission. BROWNIE blanket 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.

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

Mould-free. Does not encourage growth of mould, fungus, bacteria. Tested in accordance with ASTM C1338-14.

Low water vapour absorption. Absorbs <0.2% by volume. Tested in accordance with ASTM C1104.

Zero-odour emission. Does not emit any unpleasant odour. Tested in accordance with ASTM C1304.

Alkalinity. pH 9.

Hypoallergenic. Unlikely to cause an allergic reaction.

Maximum service temperature. Can be manufactured to withstand temperatures of up to 450°C. Tested in accordance with ASTM C411-17 & ASTM C447-15.

CERTIFICATIONS

MS1020:2010 certified. ECOWOOL® BROWNIE V2 roof blanket is MS1020:2010 compliant product. The certification is accredited by SIRIM QAS.

CIDB certified. ECOWOOL® BROWNIE V2 roof blanket is certified by CIDB according to CIDB Act 520. Please contact PGF Insulation representative for further information.

PERFORMANCE

Fire safety 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

Acoustical performance. Not only an effective thermal insulation, ECOWOOL® BROWNIE V2 Roof blanket acts as a natural and effective sound barrier. Designed to reduce transmission of unwanted noise through roof in industrial, residential and commercial buildings, it is effective at blocking airborne noise. Tested in accordance with ISO 140-3:1995.

Please contact PGF insulation sales representative for more information on the transmission loss for metal deck roof system.

PRODUCT AVAILABILITY

Type	Density (kg/m ³)	K-Value (W/m K)	R-Value (m ² k/w)	Thickness (mm)	Width (m)	Length (m)
EWBL 1.35	16	0.0366	1.35	50	1.2	15
EWBL 1.45	24	0.0342	1.45	50	1.2	12
EWBL 1.50	32	0.0327	1.50	50	1.2	10
EWBL 1.60	48	0.0309	1.60	50	1.2	7.5
EWBL 2.00	16	0.0366	2.00	75	1.2	10
EWBL 2.30	16	0.0366	2.30	85	1.2	10
EWBL 2.70	16	0.0366	2.70	100	1.2	10

Note: Tested to mean temperature of 20°C.

AVAILABLE FORM

Unfaced or Plain - designed for predictable thermal insulation performance with the added benefit of being an effective sound absorption material.

Customised product is available subject to minimum order quantity. Please contact PGF Insulation representative for more information.

SHORT FORM SPECIFICATION

Insulation material shown on drawings or specified herein shall be of approved, _____ mm thick ECOWOOL® BROWNIE V2 roof blanket EWBL _____ (kg/m³) glass mineral wool insulation.

BROWNIE V2 glass mineral wool insulation shall be certified to MS1020:2010. The insulation material shall be non-combustible, tested and comply with BS 476 : Part 4 :1970.

WARRANTY

This product is covered by a 70 years product warranty.

For Unfaced or Plain Product only.

For full details, please go to www.ecowool.com.my

* Terms & conditions apply.



Technical specifications as shown in this literature are intended to be used as general guidelines only. The physical and chemical properties of the 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. 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.

ECOWOOL® Brownie V2 RigiSlab

ECOWOOL® BROWNIE V2 RigiSlab, the environmentally friendly range of ECOWOOL® glass mineral wool insulation, manufactured by PGF Insulation is made for fire safety, thermal and acoustic insulation application, it is manufactured using up to 80% of recycled glass and incorporates the new SensiTouch Technology, featuring an improvised version of the binding technology of ECOWOOL® BROWNIE V2. The glass mineral wool insulation blanket range covers multiple densities, thicknesses and dimensions to suit typical construction applications and to fulfil a broad spectrum of building requirements.

Once installed, ECOWOOL® BROWNIE V2 RigiSlab acts as a highly effective barrier to heat flow, keeping your building warm during cold weather and 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.

SensiTouch TECHNOLOGY

Ultra low VOC (volatile organic compound) emission. Innovative new binding technology that incorporates a natural anti-formaldehyde ingredient and is ultra low in VOC. Compliant with Singapore Green Building Council (SGBC) and Environmental Choice TVOC and Formaldehyde emission criteria. Tested in accordance with ASTM D 5116.

Firm product for an ease of installation. Exceptional stiffness and recovery characteristics, making it a preferred choice for the insulation installers out there.

Soft touch less itch. New binder formula with improvised manufacturing technology that produces skin-friendly fibres to minimize allergic reaction during product handling and installation.



APPLICATION

Application focused, ECOWOOL® BROWNIE V2 RigiSlab is designed specifically for press-fit installation without the need for stapling or fastening. It can be fitted between timber or steel studs in a wall cavity and ceiling system applications. It can resist vibration or shakedown and can be fitted readily around uneven surfaces.

FEATURES AND BENEFITS

Improves indoor air quality. SensiTouch technology incorporate with natural anti-formaldehyde binder reduces the overall formaldehyde expose. Satisfying the growing indoor air quality (IAQ) needs.

Optimal fibre diameter. Optimal fibre diameter ranging from 4-5 micron produces more air chamber which enables the insulation to provide a better and enhanced performance.

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

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



Brownie

Absorbs disturbing sound. Exceptional sound-absorbing properties. Designed to reduce transmission of unwanted noise, ECOWOOL® BROWNIE V2 RigiSlab is ideal for drywall partition systems for rooms and offices in residential, commercial and industrial buildings. Tested in accordance with ASTM E90-90a. Please contact PGF insulation sales representative for more information on the transmission loss for dry wall system.

Individual volatile organic compounds (VOCs) emission. ECOWOOL® BROWNIE V2 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.

Non-corrosive. 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-free. Does not encourage growth of mould, fungus or bacteria. Tested in accordance with ASTM C1338-14.

Low water vapour absorption. Absorbs <0.2% by volume. Tested in accordance with ASTM C1104.

Zero odour emission. Does not emit any unpleasant odour. Tested in accordance with ASTM C1304.

Alkalinity. pH 9.

Hypoallergenic. Unlikely to cause an allergic reaction.

Maximum service temperature. Manufactured to withstand temperatures of up to 450°C. Tested in accordance with ASTM C411-17 & ASTM C447-15.

CERTIFICATIONS

MS1020:2010 certified. ECOWOOL® BROWNIE V2 RigiSlab is MS1020:2010 compliant product. The certification is accredited by SIRIM QAS.

CIDB certified. ECOWOOL® BROWNIE V2 RigiSlab is certified by CIDB according to CIDB Act 520. Please contact PGF Insulation representative for further information.

PERFORMANCE

Fire safety 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/m³)	K-Value (W/m K)	R-Value (m²K/W)
ECOWOOL® BROWNIE V2 RigiSlab	20	0.0348	1.40

Acoustical performance. Not only an effective thermal insulation, ECOWOOL® BROWNIE V2 RigiSlab acts as a natural and effective sound barrier. ECOWOOL® BROWNIE V2 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.

Please contact PGF insulation sales representative for more information on the transmission loss for metal deck roof system.

Type	Center Frequency (Hz)						
	125	250	500	1000	2000	4000	NRC
ECOWOOL® BROWNIE RigiSlab	0.37	0.63	1.13	1.11	1.03	1.03	1.00

ECOWOOL® BROWNIE V2 RigiSlab is ideal for drywall partition. Please contact PGF insulation sales representative for more information on the transmission loss for dry wall system.

Dry wall partition system – Plaster board

Plaster board Thickness (mm)	Number of Layers	Stud Size (mm)	Overall System Width (mm)	Acoustic Performance (STC)
12	1	64	88	41*
16	1	64	96	44*
19	1	64	102	45**

Note: * Predicted acoustic performance ** Tested acoustic performance

Dry wall partition system – Cement board

Cement board Thickness (mm)	Number of Layers	Stud Size (mm)	Overall System Width (mm)	Acoustic Performance (STC)
6	1	64	76	39*
9	1	64	82	46*
12	1	64	88	51*

Note: * Predicted acoustic performance

PRODUCT AVAILABILITY

Type	Density (kg/m³)	Thickness (mm)	Width (m)	Length (m)
ECOWOOL® BROWNIE V2 RigiSlab	20	50	0.6	1.2

SCBLS ASSESSED

ECOWOOL® BROWNIE V2 RigiSlab is assessed according to the evaluation criteria of Singapore Green Buildings Product Labeling Scheme.



AVAILABLE FORM

Unfaced or Plain - designed for predictable thermal insulation performance with the added benefit of being an effective sound absorption material.

Customised product is available subject to minimum order quantity. Please contact PGF Insulation representative for more information.

SHORT FORM SPECIFICATION

Insulation material shown on drawings or specified herein shall be of approved, ECOWOOL® BROWNIE V2 RigiSlab glass mineral wool insulation 50mm thick.

ECOWOOL® BROWNIE V2 RigiSlab glass mineral wool insulation shall be certified to MS1020:2010. The insulation material shall be non-combustible, tested and complies with BS 476 : Part 4 :1970.

WARRANTY

This product is covered by a 70 years product warranty.

For Unfaced or Plain Product only.

For full details, please go to www.ecowool.com.my

* Terms & conditions apply.



Technical specifications as shown in this literature are intended to be used as general guidelines only. The physical and chemical properties of the 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. 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.

Ecowool Classic CLASSICTONE®

Built on Ecowool technology, Ecowool Classic CLASSICTONE® glass mineral wool acoustic ceiling panel is manufactured using up to 80% of recycled glass cullet. It is an aesthetical and decorative suspended ceiling system, specially designed for selective and distinctive applications, where acoustical (sound) control is crucial and paramount.

APPLICATION

As decorative, acoustically effective suspended ceilings for indoor use and in covered outside areas that are not exposed to weather such as rain or environmental pollution. Ecowool Classic CLASSICTONE® is installed on an exposed or concealed suspended grid system, creating a ceiling with a smooth appearance. Each acoustic panel is easily demountable.

FEATURES AND BENEFITS

Sustainable product. Ecowool Classic CLASSICTONE® is free from CFCs, HCFCs and any material with ozone depletion potential (ODP) in their manufacture/composition content, which are harmless to the environment. Ecowool Classic CLASSICTONE® is compliant with most green rating tools including ODP emission credit requirements. Air quality is unaffected with total volatile organic compound (VOC) emissions below quantifiable levels.

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

Non-corrosive. 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.

Optimal fibre diameter. Optimal fibre diameter ranging from 4-5 micron 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 that feels much softer.

Alkalinity. pH 9.

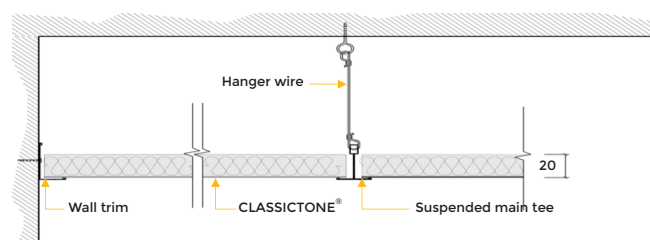
Low water vapour absorption. Absorbs <0.02% by volume. Tested in accordance with ASTM C1104.

Zero odour emission. Does not emit any unpleasant odour. Tested in accordance with ASTM C1304.

Classic

PERFORMANCE

Sag Resistance. Moist indoor air can cause other panels to visibly sag. Ecowool Classic CLASSICTONE® acoustic ceiling panel offers very high resistance to moisture absorption which protects them against warping, bulging and sagging. The panels can withstand a permanent ambient relative humidity (RH) up to 90% at 30°C without sagging.



Hygienic properties. Made of Ecowool glass mineral wool, Ecowool Classic CLASSICTONE® has no nutritional value and therefore it provides no sustenance to harmful micro-organisms.

Surface finish. Factory painted glass scrim - white (other colors available upon request)

Fire safety properties. Tested in accordance with:

- B.S. 476: Part 6 Fire propagation
- B.S. 476: Part 7 Surface spread of flame
- BOMBA Class "O" (glass mineral wool only)

Thermal conductivity. Tested in accordance with ASTM C518 at 20°C mean temperature. K-Value : 0.0309 W/mK.

Acoustical performance. Ecowool Classic CLASSICTONE® acoustic ceiling panel is amongst the most effective acoustic insulation solutions when noise treatment is required. Tested in accordance with ASTM C423-09a and E795-05.

THK (mm)	Center Frequency (Hz)							NRC	SAA
	125	250	500	1000	2000	4000			
15mm	0.94	0.97	0.68	0.87	1.00	1.05		0.90	0.90
20mm	0.85	0.86	0.76	0.94	1.05	1.15		0.90	0.91

AVAILABLE FORM

Variations

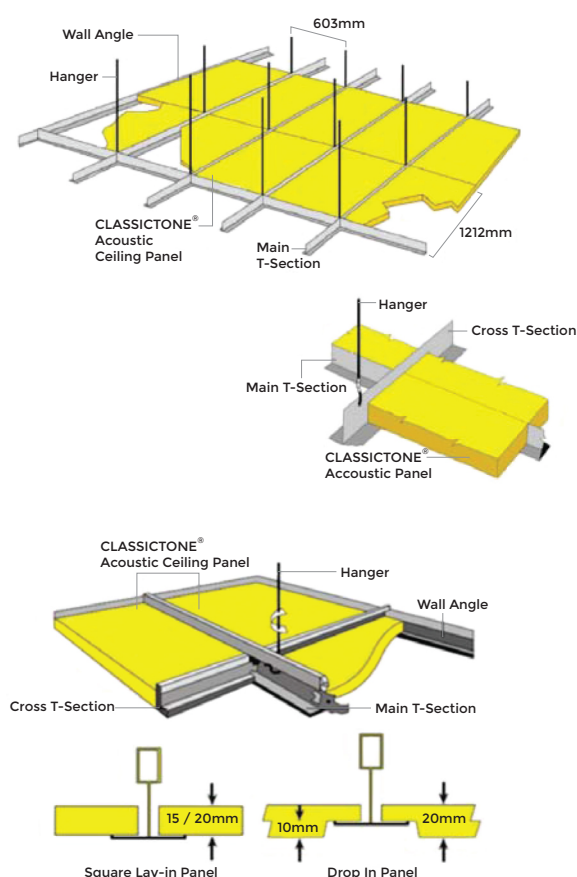
- Square lay in panels are available bare edges faced with printed glass tissue on the front.
- Square lay in panels are available concealed with printed glass tissue on the front, harden and painted edges and white glass tissue facing at the back.

Thickness	15mm	20mm	20mm recessed
Dimension	595mm x 595mm	595mm x 595mm	603mm x 603mm
	595mm x 1195mm	595mm x 1195mm	
	603mm x 603mm	603mm x 603mm	
	603mm x 1212mm	603mm x 1212mm	

INSTALLATION

The installation of Ecowool Classic CLASSICTONE® acoustic panels is part of interior decorating and may only be carried out under controlled humidity and temperature conditions. Installation shall not commence until the building is water tight and dry. Light fittings shall be independently supported, use hold down clips in areas of wind uplift. It is recommended that air grilles be installed in the ceiling to balance air pressure differentials. Please refer to the Acoustic Ceiling Panel Warranty, Installation and Maintenance Information.

Square Lay In / Drop In Panel



SHORT FORM SPECIFICATION

To supply and install Ecowool Classic CLASSICTONE® acoustic ceiling panel with NRC 0.90 manufactured by PGF Insulation c/w exposed grid system with approved 3mm hanger rod, adjustable butterfly clip, main tees, cross tees and necessary fitting and accessories fixing to steel framing or concrete soffit, including forming opening for grilles, light fittings as according to manufacturer's specification.

WARRANTY

This product is covered by a 10 years product warranty.

For full details, please go to www.ecowool.com.my

* Terms & conditions apply.



COLOUR / IMAGE DISCLAIMER

Despite every effort to provide accurate images of each ceiling panel's finishing colour, actual colours and design may vary slightly, due to the different device screen settings, the lighting in the installation location, minor differences in product finishes over time and other factors. PGF Insulation will not accept responsibility for any colour or design differences that are not factory faults. In purchasing from PGF Insulation, you agree to accept the small risk that there may be a subtle variation between the actual colour of the product against what is represented on our sales and marketing collateral due to the factors mentioned above.

Technical specifications as shown in this literature are intended to be used as general guidelines only. The physical and chemical properties of the 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. 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.