TECHNICAL DATA SHEET

## BROWNIE® BLANKET

### Glass Mineral Wool Insulation





#### **DESCRIPTION**

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

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

#### **APPLICATIONS**

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.

#### **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 ranging from 4-5micron 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.

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 ISO140-3:1995. Please contact PGF insulation sales representative for more information on the transmission loss for metal deck roof system.

**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.

Alkalinity. pH 6~7.

#### MS1020:2010 CERTIFIED

BROWNIE® is MS1020:2010 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.

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#### 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.

#### **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

#### SHORT FORM SPECIFICATION

Insulation material shown on drawings or specified herein shall be of approved, \_\_\_\_\_mm thick BROWNIE® EWBL \_\_\_\_(\_\_kg/m³) formaldehyde free glass mineral wool insulation.

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

#### 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.

Туре	Density (kg/m³)	K- Value (W/m K)	R- Value (m²K/W)
EWBL 1.35	16	0.0366	1.35
EWBL 1.45	24	0.0342	1.45
EWBL 1.50	32	0.0327	1.50
EWBL 1.60	48	0.0309	1.60
EWBL 2.00	16	0.0366	2.00
EWBL 2.70	16	0.0366	2.70

#### **ACOUSTICAL PERFORMANCE**

Not only an effective thermal insulation, BROWNIE® blanket acts as a natural and effective sound barrier. BROWNIE® blanket is amongst the most effective acoustic insulation solutions when sound proofing is required. Please contact PGF Insulation representative or further information.

#### **PRODUCTS AVAILABLE**

THOUSE TO THE TELE						
Туре	Density (kg/m³)	Thickness (mm)	Width (m)	Length (m)		
EWBL 1.35	16	50	1.2	15		
EWBL 1.45	24	50	1.2	12		
EWBL 1.50	32	50	1.2	10		
EWBL 1.60	48	50	1.2	7.5		
EWBL 2.00	16	75	1.2	10		
EWBL 2.70	16	100	1.2	7.5		

#### **AVAILABLE FORM**

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

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. 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.

#### PGF Insulation Sdn. Bhd. (228905-M)

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