



TECHNICAL DATA SHEET

Ver. 1.00
(03/08/20)

Brit Adhesives Ltd
Hainge Road
Tividale
West Midlands
B69 2NH

Tel:
0121 520 9333

Fax:
0121 520 9900

Web:
www.britadhesives.co.uk

Email:
sales@britadhesives.co.uk



BRIT CRACK MATTING DECOUPLING MEMBRANE

An alkali-resistant decoupling membrane for under ceramic and natural stone tiles.

- DESCRIPTION:

Brit Crack Mat is a bonded decoupling membrane based on a system composed of a layer of polyethylene grid structure of square cavities coated by a non-woven polypropylene anchoring fleece laminated to its underside. Brit Crack Mat accommodates lateral movement for tile and natural stone installations on floors with limited movement.

Brit Crack Mat serves as a waterproofing membrane, a vapour pressure equalisation layer to accommodate construction moisture occurring within the substrate and an uncoupling layer for problematic substrates.

- WHY USE BRIT CRACK MATTING?

Brit Crack Mat is quick and easy to install and provides a decoupling barrier in problematic areas, where ceramic, porcelain or natural stone tiled finishes are required. The areas are ready for use in a short time, and the easily installed system minimizes potential errors caused by lateral movement.

Brit Crack Mat can be used in the following areas:

- Internal and external flooring applications (for external applications Brit Crack Mat should be protected with a flexible sealing slurry);
- Installation of ceramics tiles and natural stone flooring;
- Suitable for bathroom and kitchen areas
- Recommended for heated floors and timber floors.
- On old hard ceramic coatings, flush-jointed masonry, brickwork, gypsum plaster, and gypsum fibreboards, calcium sulphate screeds and mineral surfaces such as cement plaster, porous concrete, concrete, cement screed, cement-based panels, heated and unheated screeds.

- WHERE TO USE:

Decoupling:

Brit Crack Mat is a decoupling membrane which decouples the floor covering from the substrate and neutralises the tensions between the substrate and the tile covering that result from the varying deformations of the materials. Likewise, stress cracks in the substrate are bridged and are, therefore, not transferred to the surface covering.



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Waterproofing:

Brit Crack Mat is a waterproof polyethylene membrane with a relatively high vapour diffusion density. Provided the Brit Crack Mat joints and the connections to walls and built-in elements are properly installed, and bridged using Brit Aqua Waterproofing Tape, then Brit Crack Mat can be used to create a certified bonded waterproofing assembly with the tile covering.

It is highly recommended to use Brit Adhesives system-approved thin-bed adhesives for areas that require CE conformity in compliance with the general certificate of national technical approval. Brit Crack Mat helps protect the substrate against damage due to moisture penetration and aggressive substances.

Equalisation of Vapour Pressure:

The interconnected air channels between the cavities on the underside of the Brit Crack Matting remain open. This allows moisture in the substrate to evaporate, therefore neutralising vapour pressure.

Load Distribution (*load impact*):

Tiles that are installed in floor coverings with Brit Crack Mat should have a minimum size of 5x5cm and be at least 5.5mm thick. The bottom of the square cavities, which are filled with thin-bed adhesive, directly transfer the load impact on the tile covering to the substrate. As a consequence, tile coverings installed on top of the crack mat are highly load resistant. If high traffic loads are expected (e.g. in industrial locations), the tiles selected for the installation must be of the corresponding thickness and pressure stability. In areas with high impact loads, the tiles must be fully embedded in the thin-bed adhesive. The contact surface of Brit Crack Mat amounts to approximately 50% of the total surface. This can reduce the load bearing capacity in case of point loads. For high point loads, select a tile thickness that is capable of distributing the loads. Ceramic tile coverings should not be exposed to the direct impact of hard objects.

- MATERIAL:

Brit Crack Matt is a bonded decoupling membrane based on a system composed of a layer of polyethylene grid structure of square cavities coated by a non-woven polypropylene anchoring fleece laminated to its underside. Brit Crack Matt is flexible, bridges cracks and will not rot. In addition, it is highly resistant to watery solutions, salts, acids and alkalis, as well as many organic solvents, alcohols and oils.

The rib height is approximately 3.4 mm. Polyethylene is not permanently UVstable. Prolonged exposure to intensive sunlight should be avoided when storing the material.

- INSTALLATION:

1. The substrate must be dry, stable, sound, flat and free from loose particles and other materials, which may inhibit adhesion to the floor. Remove all cement laitance, flaking areas and traces of powder, grease, wax, paint etc. All cracks wider than 0.2mm must be repaired beforehand. Any uneven cementitious substrates or ceramic surfaces with wide joints need to be smoothed off and repaired before laying Brit Crack Mat. Existing floors and those tiled with ceramic, porcelain, clinker or terracotta tiles, etc., must be well bonded to the substrate and be free from substances which could affect the adhesion of the membrane, such as grease, oil, wax, paint, etc.

To remove material that could affect the adhesion of the cementitious adhesive, clean the floor with suitable cleaning agents. Gypsum based substrates such as calcium sulphate screeds, plasterboard or gypsum plaster as well as absorbent surfaces made of concrete, aerated concrete, cement mortar and cement render must be primed, before laying Brit Crack Mat, with BritPrimer or BritPrimer HD at the appropriate dilution (refer to the relevant technical data sheet for information). Non-absorbent substrates such as ceramic tiles or natural stone surfaces must be primed with Brit Prim Grip.

2. Use a Brit Adhesives tile adhesive conforming to a minimum of class C2 according to EN 12004 such as Britflex S1 Rapidset or similar, apply using a 3mm or 4mm notched trowel. For application details please refer to the pertinent technical data sheet.

3. The required length of Brit Crack Mat should be measured and cut to the size required using a utility knife or scissors. Brit Crack Mat must be laid over fresh tile adhesive, fleece side down. Embed the anchoring fleece on the underside of Brit Crack Mat into the fresh tile adhesive and press down uniformly using a trowel or similar, working from the centre to the edges, in order to avoid trapping air bubbles under the waterproofing membrane so that its entire surface is bonded. Please observe the open time of the bonding adhesive. When initially positioning Brit Crack Mat, it is advisable to align and position the matting while slightly stretching it. All subsequent courses of Brit Crack Mat should be tightly engaged.

4. Once installed, the matting must be protected against heavy mechanical loads to avoid loosening it from the substrate or other damage. It is advisable to place running boards (especially in the centre of material transports) to protect Brit Crack Mat. Other protective measures, such as shielding of direct sunlight or protection from precipitation in exterior applications, may also be required. Carefully remove any moisture that may have gathered in the indentations of the studs before applying the thin-bed tile adhesive.

5. Allow sufficient time for the Brit Crack Mat to bond to the adhesive, follow tile adhesives manufactures instruction on drying times. Once the Brit Crack Mat has bonded to the adhesive the tiles can be set using the thin-bed method. It is recommended to fill the square cavities with the smooth side of the trowel and to establish a regular pattern in the bonding adhesive with the notched side of the trowel in one application. The tiles are fully embedded in the adhesive. Fully embedded installation of tiles in accordance with the applicable professional standards is particularly important for coverings with high traffic loads and in outdoor areas. The notches of the trowel must match the format and thickness of the tiles, so as to achieve solid bedding. Please observe the open time of the adhesive.

After installing the tiles, grout the joints using Britflexi Premium Grout.

Any expansion / movement joints used in the installation must be sealed with silicone.



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- CHARACTERISTICS:

- Decoupling;
- High Tensile Strength;
- Crack Bridging Ability;
- Alkali-Resistance;
- High adhesion when used together with Brit Adhesives cementitious tile adhesives.

ADVANTAGES

- Easy application.
- Fast setting.
- Hygienic.
- Waterproofing
- The material is physiologically safe
- Vapour pressure equalisation layer

RECOMMENDATIONS

- Do not use Brit Crack Mat if the environmental temperature is lower than +5°C.
- In large areas the use of Brit Crack Mat as a decoupling membrane does not avoid the need of movement joints.
- Brit Crack Mat cannot be used as a top layer, and must always be covered with a protective layer such as a ceramic coating (after hardening of the mortar).
- Do not apply any smoothing layer on top of the decoupling membrane.
- Install Brit Crack Mat using a 3x3mm or 4x4mm notched trowel

- TECHNICAL:

Colour: Orange

Approx layer thickness: 3.4mm

Width: 1m

Roll length: 30m

Weight: 700mg/m²

Working temperature: from +5°C

Barrier sheet: Polyethylene (PE)

Carrier material: Polypropylene and Polyester fleece

Temperature resistance: -20°C to +70°C

Breaking strength (N/mm): 15

Tear resistance: N ≥ 70

Elongation at break (%): 550

Pull out value: >0.25N/mm²

- Non-toxic, no smell and no pollution
- Anti-aging, anti-oxidant and corrosion resistant
- Good flexibility, tensile strength and anti-perforation
- Easily operable

Storage: 24 months in a cool, dry place.

Safety Information: Non hazardous

- STORAGE:

Brit Crack Mat can be stored up to 24 months in a cool, dry place. Protect from the sun, frost and damp.

- DISPOSAL:

Brit Crack Mat may be disposed of as building waste.

- HEALTH & SAFETY:

Brit Crack Mat is a non-hazardous material.
Wear protective clothing, safety goggles and safety gloves.

ALWAYS WEAR PROTECTIVE WORKWEAR



WEAR DUST MASK



PROTECTIVE CLOTHING



WEAR SAFETY GOGGLES



WEAR SAFETY GLOVES

Notes: The information given is without prejudice and is believed to be accurate and complete. BRIT ADHESIVES goods are guaranteed against defective materials but we have no control over the site conditions, misuse of the product or the quality of the workmanship. BRIT ADHESIVES accepts no liability for any direct or indirect consequential loss or damages arising or resulting from the use of this information. Timber subfloors should be installed according to manufacturers' instructions and site conditions should be taken into consideration.



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