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## Triton TGS-GM500

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Triton TGS-GM500 is a 0.4mm thick co-polymer thermoplastic membrane, designed to be used as a damp proof membrane and to prevent the ingress of Radon gas when used in the construction of buildings and dwellings.

TGS-GM500 is used to prevent the ingress of Radon in both basic and full Radon protection areas, above or below the slab.

### Key benefits

- BBA Certified
- 0.4mm (1600 gauge) thick, complies with BBA regulations for Radon protection membranes in line with BS8485:2015+A1:2019
- Thickness provides greater impact properties and protection from following trades
- Conforms to BR 211:2015, industry guidance for Radon protection
- Multi-folded 4M x 20M rolls, easy to handle and transport
- Multi-functional, also acts as damp proof membrane
- Dual jointing methods, lap joints can be taped or heat welded

Triton TGS-GM500 is a very effective gas barrier and protects buildings and occupiers from the ingress of gas and moisture. Building regulations require that proper precautions be taken to prevent danger to health when building on gas contaminated land. When installed in accordance with the BRE report 414 "Protective measures for housing on gas contaminated land" Triton TGS-GM500 is an effective solution to the problem and can be laid with confidence.

The membrane can be positioned within the ground floor construction either above or below the structural floor.

### Storage on Site

Triton TGS-GM500 is classified as non-hazardous. (As defined in Code of Practice CP102 1973).

The membrane should be stored horizontally, under cover, in its original packaging.

### Handling on Site

Quality control during the laying of the membrane is extremely important. The membrane should be protected either through the use of temporary boarding over its whole area or the immediate laying of a floor screed.

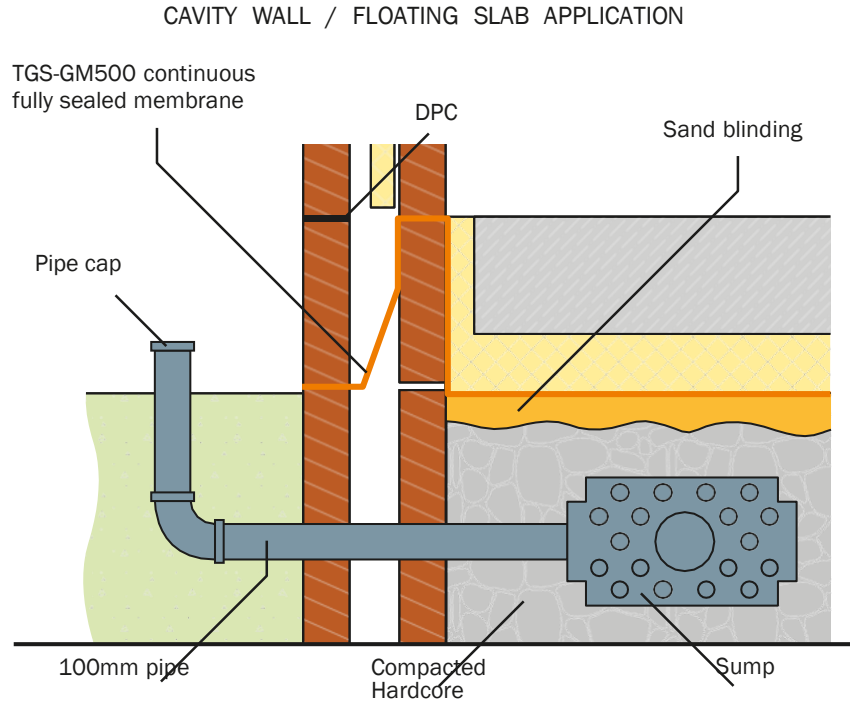
### Installation

Triton TGS-GM500 membrane system must be laid in accordance with the Building Research establishment BRE No. 414. "Protective measures for housing on gas contaminated land". Triton TGS-GM500 can be used in most common floor constructions. Triton TGS-GM500 membrane is installed in a similar way to damp proof membranes, but with much greater attention to joint sealing of the gas resisting membrane, under wall sealing and workmanship. The membrane will also perform the same function as a damp proof membrane. Where there is a risk of hydrostatic pressure this product is not intended for use. Triton TGS-GM500 membrane should be loose laid on a smooth surface or sand blinding to prevent the membrane from puncture. The membrane must be free from grease and dirt.

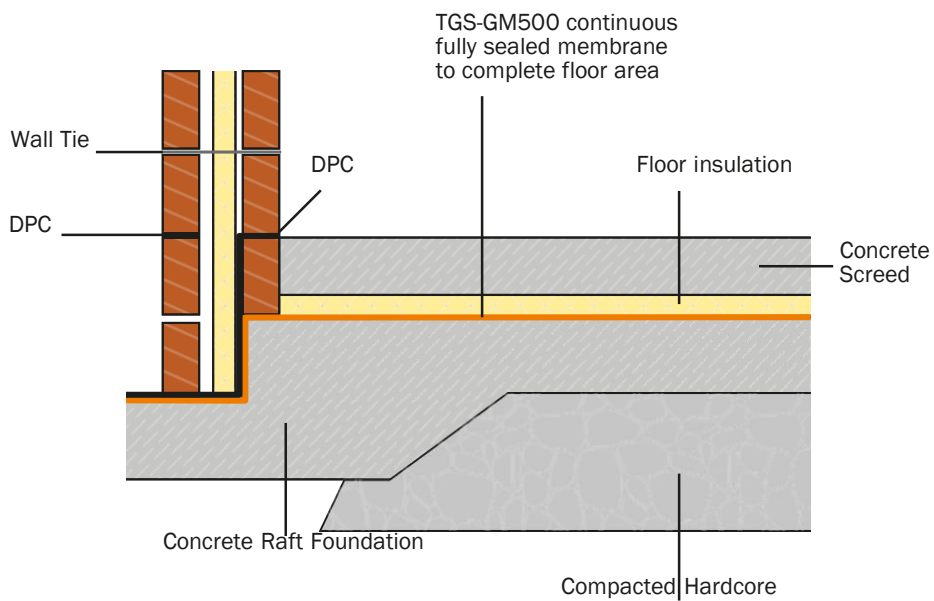
### Protecting the Membrane after Installation

Triton TGS-GM500 should be protected as soon as possible once installed.

A minimum thickness of 50mm screed is recommended. Care should be taken when the screed is applied not to cause stretching, puncture or displacement of the membrane.



### RAFT FOUNDATION

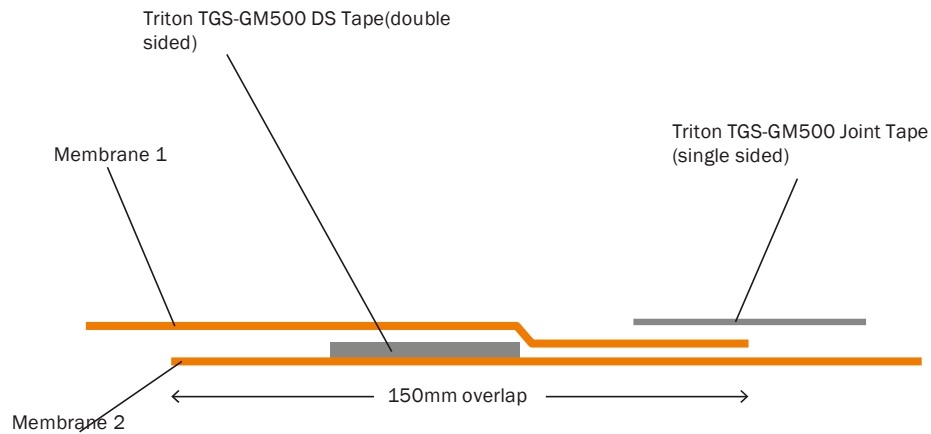


## Jointing Triton TGS-GM500

Sheets must be clean and free from dirt and grease before application of TGS-GM500 DS Tape, and in view of the difficulty of achieving gas tight seals under wet or dirty conditions it is recommended that special care is taken with this aspect of the installation. Unroll one width of the membrane after determining the most effective method of covering the area. Apply the TGS-GM500 DS Tape about 50mm from the edge, leaving the backing paper on. Lay the next width of membrane overlapping the first by 150mm. Remove the backing paper from the tape and join the top sheet to the bottom sheet by applying pressure with a hand roller. Where the membranes overlap apply the 75mm Triton TGS-GM500 Joint Tape (single sided tape), equidistant on both membranes. (See Figure 1).

All service entry points must have airtight seals. TGS Top Hat units and corner pre-forms must be sealed using Triton TGS-GM500 DS Tape as in Figure 1.

FIGURE 1



**1)** Unroll the first membrane, ensure the surface is dry and free from dust or grease. Inspect the membrane to ensure there are no indentations or protrusions. If there are remove and apply sand blinding.

**2)** Apply Triton TGS-GM500 DS Tape to the membrane, 50mm from the edge. It is very important that the membrane is dry and free from dust and dirt.

**3)** The second membrane must be unrolled overlapping the first membrane by 150mm. Remove the protective paper from the tape and apply pressure to the membrane while joining the two membranes together.

**4)** Seal the two membranes by installing Triton TGS-GM500 Joint Tape to the edge. (Ensure that the membrane is completely dry, free from dust and dirt).



## Technical Data

Thickness	0.4mm
Width (m)	4 Metres (-2.5%/+2.5%)
Length (m)	20 Metres (-0%/+10%)
Mass	375 g/M <sup>2</sup>
Tensile strength-MD	15N/mm <sup>2</sup>
Tensile strength-CD	15N/mm <sup>2</sup>
Tensile elongation-MD	400%
Joint strength	245N
Watertightness 2kPa	EN 1928 Pass
Resistance to impact	200mm
Durability (artificial ageing)	EN1296 and EN1928 Pass
Durability (alkali)	Annex C Pass
Resistance to tearing (nail shank) MD	250N
Resistance to tearing (nail shank) CD	250N
Resistance to static loading	20kg
Water vapour transmission – resistance	941MNs/g
Water vapour transmission – permeability	0.14 g/m <sup>2</sup> /d
Radon permeability	8x10 <sup>-12</sup> m <sup>2</sup> /s
Radon transmittance	21x10(-9)
Reaction to fire	F Class (EN 13501-1)

### Triton Contact Details:

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