



---

## Triton Systems

### TT Vapour Membrane Data Pack

BS8102: 2009 "Code of Practice for the protection of below ground structures from water from the ground"



---

#### Triton Contact Details:

Triton Chemical Manufacturing Co Ltd T/a Triton Systems  
Units 3-5 Greyhound Commercial Centre, Greyhound Way, Crayford, Kent DA1 4HF

Tel: 01322 318830

Fax: 01322 524017

Email: [info@tritonsystems.co.uk](mailto:info@tritonsystems.co.uk)

[www.tritonsystems.co.uk](http://www.tritonsystems.co.uk)



## Triton TT Vapour Membrane

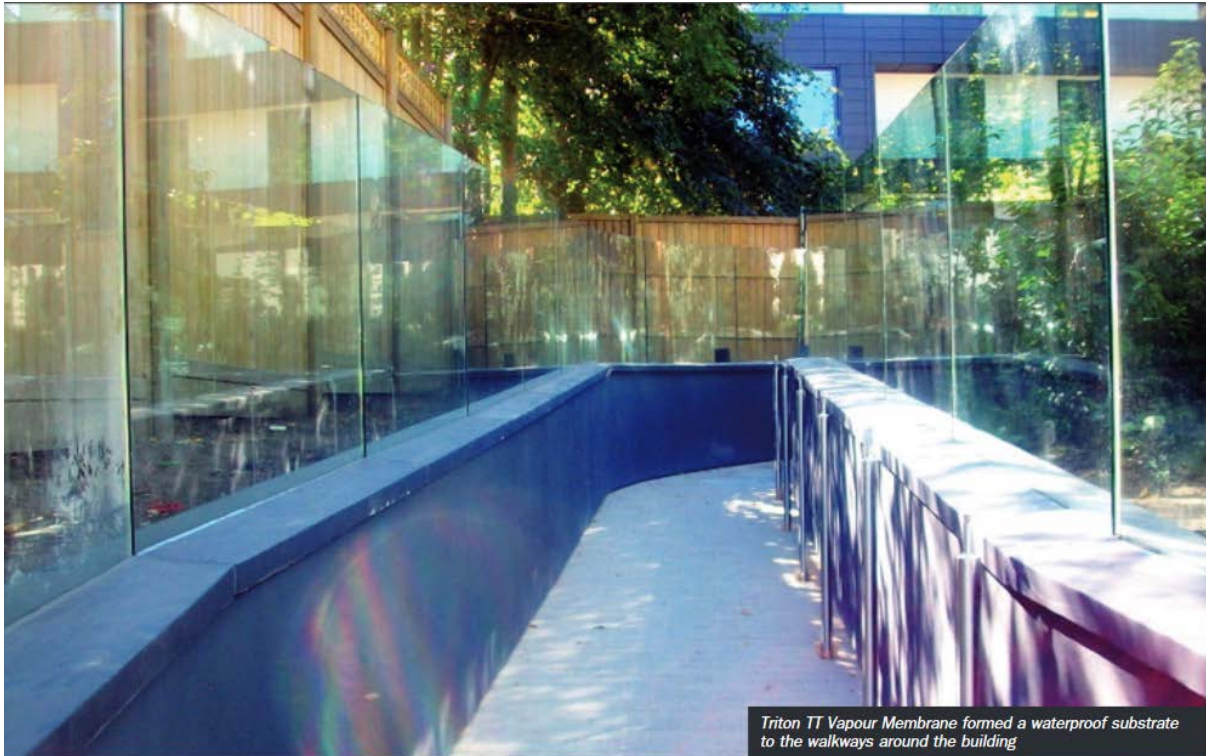
### **Contents.**

- TTVM Data Sheet
- TTVM Application Guide
- TTVM NBSPlus
- TTVM Certificate of Test
- TTVM CE Certificate
- TTVM Declaration of Performance
- TTVM Carbon Dioxide Test
- TTVM MSDS Sheet

Triton TT Vapour Membrane (TTVM) is a ready blended coating that once cured, provides a waterproof Methane and Carbon Dioxide barrier. TTVM provides a Type A waterproofing system as defined in BS8102:2009 The code of practice for protecting below ground structures from water from the ground TTVM also provides a ground gas barrier as defined in BS8485:2015 The code of practice for the design of protective measures for Methane and Carbon Dioxide gases for new buildings.



## Triton TT Vapour membrane



### Description

Triton TT Vapour Membrane is a single component acrylic modified coating that once cured, provides a liquid applied Type A waterproofing system as defined in BS8102: 2009 the code of practice for the protection of below ground structures from water from the ground. TT Vapour Membrane also provides a ground gas barrier to Radon, Methane and Carbon Dioxide as defined in BS8485: 2015 the code of practice for the design of protective measures from ground gases for new buildings.

### Typical Applications

As a retro applied waterproof and gas proof membrane to concrete, masonry and brick substrates. Can be applied by airless spray, roller or brush to walls, floors and soffits. As an alternative to sheet membranes in new construction.

### Characteristics

A 0.7mm thick (dry film) coating provides an effective methane barrier when applied to most clay or cementitious based construction materials.

Also an effective waterproof membrane.

Excellent adhesion, bonds to porous and non-porous substrates.

Flexible.

Non toxic.

Will withstand temporary light trafficking.Fully bonded system.

Easily repaired by locally over-coating.

Can be painted, plastered or screede over.

Rapid drying, in good conditions two coats can be applied in the same day.

Can be applied to damp and 'green' substrates.

## Technical Data

Components	1
Form	Thixotropic Liquid
Specific Gravity	1.40 (approx)
Application Temp	Plus 4 °C
Toxicity	Non – toxic
<b>Cured Properties</b>	
Adhesion to concrete	1.1N/mm <sup>2</sup>
Elongation ASTM D2370 %	>100%
Tensile Strength ASTM D2370	11 N/mm <sup>2</sup>

## Chemical Resistance

Triton TT Vapour Membrane has good chemical resistance to gasoline, sodium hydroxide, calcium chloride, de-icing salts and effluent.

## Performance Criteria

The performance of Triton TT Vapour Membrane is illustrated in the following table with the accepted criteria for diffusivity test work done at 0.2 bar.

Accepted Criteria	Triton TT VAPOUR MEMBRANE
R>50m	357.5m

Where R = air diffusion equivalent for carbon dioxide in metres.

Gas (methane) permeability :  $8.5 \times 10^{-16} \text{mi/m}^2/\text{s}^{**}$

\*\* This is an independent 3<sup>rd</sup> party UKAS accredited test – test certificate No.12811

## Application Guidelines

Surfaces must be clean, free from dust and loose material, oil, paint, fungal growth etc.

Non-structural cracks >0.5mm must be filled.

Structural cracks must first be repaired and filled.

The substrate must be sound and ideally present a smooth face.

Old repairs must be inspected and repaired if necessary.

Newly laid concrete should have a clean textured surface; Triton TT Vapour Membrane can be applied to concrete or mortar within 24 hours of laying.

Apply 45° fillets onto angles formed of Triton Fillet Seal where required.

## Mixing

Triton TT Vapour Membrane is supplied ready blended in a pail. The product requires agitation using a slow speed paddle mixer. Mix carefully for 5 minutes before use. If containers are stored for more than 2 hours after opening, re-agitate.

Do not add water to the product.

## Surface Application

1. Pre-dampen (not wet) the substrate before applying the first coat.

Interface with other media

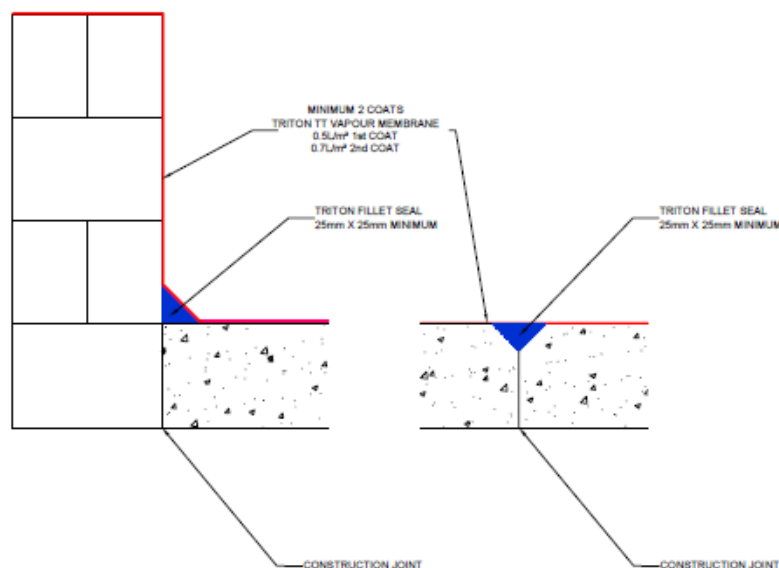
1. For expansion joints ensure that the TT Vapour Membrane is applied well into the rebate before the expansion media is applied.
2. Other gas membranes must be exposed and lapped with TT Vapour Membrane where present.

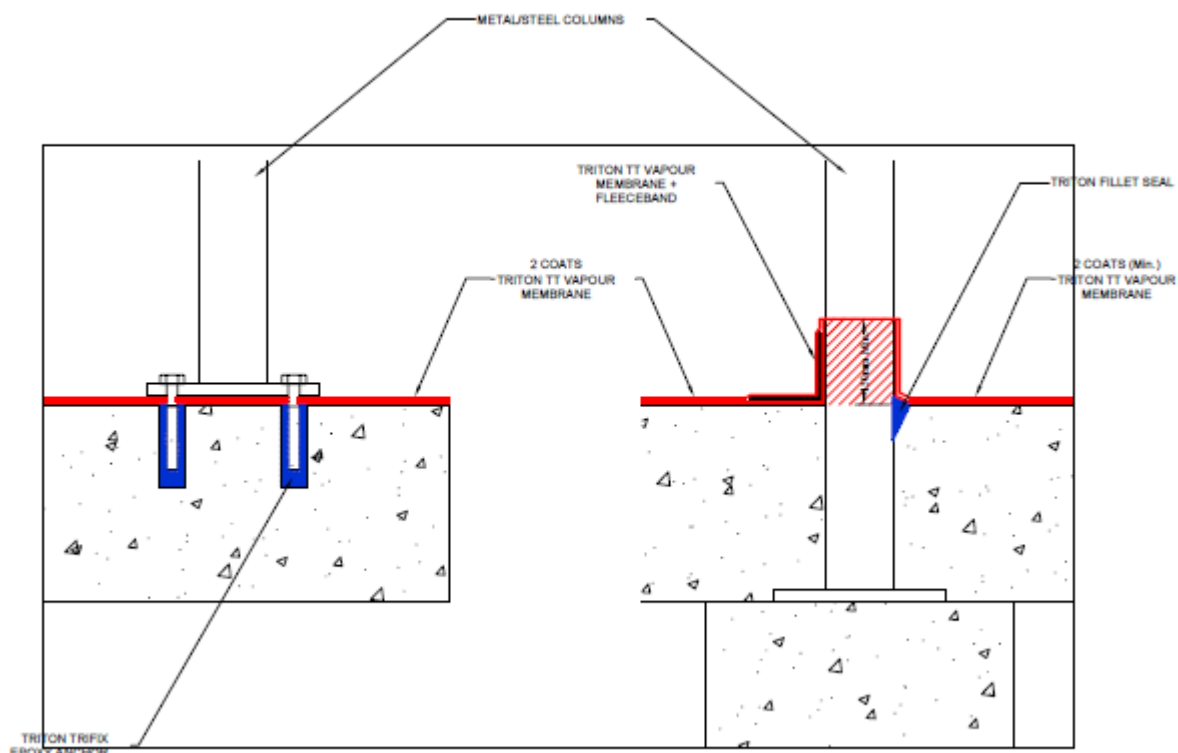
Dealing with cracks

1. Cracks must be stabilised and filled. Apply the first coat of TT Vapour Membrane and apply Triton Fleeceband along the line of the crack, apply a further coat of TT Vapour Membrane to fully cover the Fleeceband; apply the final coat as stated below.

## Application of main coating system

1. The product can be applied by stiff brush, roller or airless spray. The spray method is especially suitable for less accessible locations and uneven substrates.
2. The first primer application is applied at the rate of  $>0.5\text{lt/m}^2$  for waterproofing and  $>0.3\text{lt/m}^2$  for an effective gas proof membrane. Ensure that the coating is even, use a circular action when spraying.
3. Allow the primer coat to dry before applying the second coat.
4. Apply the second coat at the rate of  $>0.7\text{lt/m}^2$  for waterproofing and  $>0.5\text{lt/m}^2$  for gas proof applications; for brush application, apply at right angles to the first coat. Again use a circular action when spraying. Application rate will depend on substrate surface.
5. Do not apply over bitumen.
6. The total application thickness must not exceed 4mm if cracking or splitting is to be avoided.
7. Protect from frost and rain.
8. Only apply when temperature is  $5^{\circ}\text{C}$  and rising.





## Specification

NBS: Clause J30 10, 130 – Liquid Applied Damp Proofing  
Type A Barrier Protection in Accordance with BS8102(2009).

## Packaging

TT VAPOUR MEMBRANE is supplied in a 20ltr pail.

## Colour

Black when cured.

## Storage

TT VAPOUR MEMBRANE must be stored at temperatures above 5°C and below 35°C in dry conditions, off the ground and away from direct sunlight.

The shelf life is 12 months in original unopened packaging when stored correctly.

## Health and Safety

- Protect hands with rubber gloves
- Avoid contact with skin and eyes. Should this occur flush with plenty of clean water.
- If irritation persists, seek professional medical advice.
- For full information consult the relevant Material Safety Data Sheet.

For further information please contact:

### Triton Systems

3-5 Crayford Commercial Centre, Greyhound Way, Crayford, Kent. DA1 4HF

Tel: 01322 318830. Fax: 01322 524017

Email: [info@tritonsystems.co.uk](mailto:info@tritonsystems.co.uk) Web: [www.tritonsystems.co.uk](http://www.tritonsystems.co.uk)







---

## Triton TT Vapour Membrane – Liquid Waterproofing / Gas Barrier

---

### SPECIFICATION CLAUSES

Referenced in clauses J30 10 130

#### **J30 LIQUID APPLIED TANKING / DAMP PROOFING**

To be read with Preliminaries/General conditions

#### **TYPES OF TANKING/DAMP PROOFING**

##### **110A COLD APPLIED TANKING & GAS PROOFING**

- Substrate  
Existing brickwork and concrete  
In situ concrete walls and slab  
Smooth rendered masonry
- Primer  
Not required
- Coating  
Styrene butadiene co-polymer
- Manufacturer  
Triton Systems, 3-5 Crayford Commercial Centre, Greyhound Way, Crayford.  
DA1 4HF.  
Tel: 01322 318830 Fax : 01322 524017  
E-mail: [technical@tritonsystems.co.uk](mailto:technical@tritonsystems.co.uk)
- Product reference  
Triton TT Vapour Membrane (in conjunction with product data sheet)
- Application  
First coat at  $\geq 0.5\text{lt/m}$  for waterproofing and  $\geq 0.3\text{lt/m}$  gas barrier membrane  
Second coat  $\geq 0.7\text{lt/m}$  for waterproofing and  $\geq 0.5\text{lt/m}$  gas barrier membrane
- Reinforcement  
Triton Fleeceband to be applied at wall/floor junctions and construction joints.
- Blinding  
Not required
- Protection of coatings  
Application to floors must be protected with screeds or protection boards  
Application to walls to be protected by, render internally, Platon Double Drain  
Externally.



## EXECUTION

### 205A SUITABILITY OF SUBSTRATE

- Substrates generally:  
Smooth, even textured, clean, dry and frost free.  
within tolerances for level and surface regularity.  
Vertical and horizontal surfaces: Correctly prepared and free from irregularities.
- Moisture content and stability of substrate: Must not impair integrity of finished tanking /damp proofing.
- Preliminary work: Complete including:
  - Chases.
  - External angles.
  - Formation of upstands and kerbs.
  - Movement joints.
  - Penetrations / Outlets.

### 210 COATING APPLICATION

- Adjacent surfaces exposed to view in finished work: Protect.
- Coatings:  
Apply in dry atmospheric conditions.  
Uniform, continuous coverage. Do not allow to pool in hollows.  
Firmly adhered to substrate and free from imperfections.  
Prevent damage to finished coatings.
- Penetrations: Impervious.
- Final covering: Apply as soon as possible after coating has hardened.

### 220 COLD APPLIED COATINGS

- Thinning: Not permitted unless recommended by manufacturer.
- Successive coats:
  - Allow to dry before applying next.
  - Apply at right angles to previous coat.

### 230A ELASTOMERIC LIQUID RUBBER COATING

- Dry surfaces: Lightly dampen.
- Air and surface temperatures (minimum): 5°C
- Weather conditions: Do not apply if there is a risk of rain during application and drying, unless effective temporary cover is provided over working area.
  - Unavoidable wetting of construction or coating: Minimize and make good damage.

### 240 REINFORCEMENT

- Placing into first coat of Triton TT Vapour Membrane, apply two further coats.
- Edge overlap (minimum); 150mm either side of joints.
- Finish: Smooth and free from imperfections.

## COMPLETION

### 330 PROTECTION OF COATINGS

- Coated surface: Clean and free from contaminants
- Board manufacturer:  
Triton Systems. 3-5 Crayford Commercial Centre, Greyhound Way, Crayford. DA1 4HF.  
Tel: 01322 318830. Fax: 01322 524017.  
E-mail: [technical@tritonsystems.co.uk](mailto:technical@tritonsystems.co.uk) Web: [www.tritonsystems.co.uk](http://www.tritonsystems.co.uk)
  - Product reference: Platon Double Drain.

- Thickness: 8mm.
- Placement: Fixings to top lip, bond vertical joints with Platon Sealing Bead and Platon Sealing Tape.

OR

- Apply a cement screed or floor covering over the finished floor application.

340 Backfilling

- Timing: Carry out as soon as possible after membrane and protection are complete.

# Certificate of Test

Page 1 of 2

**Title: Determination of Methane  
Permeability of Triton TT Vapour  
Membrane**

**Certificate of Test Number: 12811RevB**

**Client's Name & Address:**

Triton Chemical Manufacturing Co. Ltd  
129 Felixstowe Road  
Abbey Wood  
London  
SE2 9SG

Our Ref: N950/T591

TC Job No: 3LK6 – 1.281.07

Your Ref: KD/1209-TTVM/TEST

Date: 21 March 2012

Date sample(s) received: 27 November 2009

Sample(s) received from: Triton Chemicals


Sample No: 145554

This Certificate of Test is copyright. Reproduction of the whole or any part thereof must not be made without the express permission of Technology Centre (A trading name of VINCI Construction UK Ltd).

This Certificate and the results shown are based upon the information drawings samples and tests referred to herein

Technology Centre accepts no liability for any damages, charges, costs (including, but not limited to, legal costs) or expenses in respect of or in relation to any damage to any property or other loss (save for death or personal injury occasioned by reason of any negligence on the part of Technology Centre) whatsoever arising directly or indirectly from the use of this Certificate of Test, or the use of any goods or materials referred to in this Certificate of Test.

Written by:   
D Thompson (position: Engineer)

Authorised by:   
N McDonald (position: Principal Engineer)

**Technology Centre**

Stanbridge Road, Leighton Buzzard, Bedfordshire, LU7 4QH

**Tel No. 01525 859111**  
Registered Office, Watford

**Fax No. 01525 859001**  
Registered No. 2295904 England

**TECHNOLOGY  
CENTRE** 

## 1. INTRODUCTION

This certificate of test describes methane permeability testing carried out on Triton TT Vapour Membrane at the request of Triton Chemical Manufacturing Co. Ltd. on 16 December 2009 at Technology Centre (TC), Leighton Buzzard.

## 2. SAMPLE DESCRIPTION

Technology Centre received one 1ltr tin of Triton TT Vapour Membrane (TC Ref 145554). The coating was given unique TC sample numbers for reference purposes only.

## 3. TEST METHOD

### 3.1 Coating Application

The coating system was brush applied to four unglazed ceramic tiles approximately 100x75mm using a weighing procedure to achieve the coverage rate required. One coat of Triton TT Vapour Membrane was applied at a rate of 300g/m<sup>2</sup> and allowed to air dry for 24 hours. A second coat of Triton TT Vapour Membrane was then applied at a rate of 700g/m<sup>2</sup>. Each coat was applied at 90° to the previous.

The coated sample was allowed to cure for 24 hours in the laboratory and then conditioned at 23±2°C and 60±5% relative humidity for a minimum period of 7 days prior to testing.

### 3.2 Test Procedure

The test was carried out in general accordance with accordance with "Rilem Report 12, Performance Criteria for Concrete Durability, E & FN Spon, London, UK pp 226-230".

Methane (100%) at 23cm mercury (30700Pa) above atmospheric was pressurised on the coated specimen. The gas flow rate through the sample was determined at atmospheric pressure approximately 2 hours after initial pressurisation. The unglazed ceramic tile offers no measurable resistance to pressurised gas and was ignored in the calculation of the methane gas permeability ( $K_{gas}$ ). Calculation of gas permeability ( $K_{gas}$ ) was determined in accordance with equation 2.7 in "Rilem Report 12, Performance Criteria for Concrete Durability, E & FN Spon, London, UK pp 7-8".

## 4. TEST RESULTS

The results for the testing are contained in Table 2 below

### METHANE GAS PERMEABILITY

Table 2

Client Reference	TC Ref	Specimen Thickness (m)	Exposed Area (m <sup>2</sup> )	Methane Gas Permeability ( $K_{gas}$ ) (m/s)	Methane Gas Permeability ( $K_{gas}$ ) (ml/m <sup>2</sup> /s)
Triton TT Vapour Membrane	145554C	0.000727	0.005064	$8.527 \times 10^{-15}$	$8.527 \times 10^{-9}$

Date of test: 16.12.2009

Note: The methane gas permeability values gained by this method can also be used for radon gas permeability values.

## 5. SPECIFICATION

The permeability specifications for non-geological barriers as taken from Council Directive 193/31/EC dated April 1999 has for inert waste:  $K_{gas} = <1.00 \times 10^{-7}$  m/s.



Notified Body No 0836  
**British Board of Agrément**  
Bucknalls Lane  
Watford  
Hertfordshire WD25 9BA  
Telephone: 01923 665300  
Facsimile: 01923 665301  
e-mail: [mail@bba.star.co.uk](mailto:mail@bba.star.co.uk)  
website: [www.bbacerts.co.uk](http://www.bbacerts.co.uk)

## **Certificate of Conformity of the Factory Production Control** **0836-CPR-13/F072**

In compliance with the *Regulation 305/2011/EU of the European Parliament and of the Council of 9 March 2011* (the Construction Products Regulation or CPR), this Certificate applies to the construction product:

### **Triton RC & Triton TT**

**Products and systems for the protection and repair of concrete structures — Part 2: Surface protection systems for concrete (*ingress protection*)**

**Placed on the market by:**

**Triton Chemical Manufacturing Co Ltd**

T/A Triton Systems  
Units 3-5  
Crayford Commercial Centre  
Greyhound Way  
Crayford, Kent  
DA1 4HF

**and produced in the manufacturing plant:**

**FACTORY 1**

This Certificate attests that all provisions concerning the assessment and verification of constancy of performance described in Annex ZA of the standard:

**EN 1504-2 : 2004**

under system 2+ are applied and that the factory production control fulfils all the prescribed requirements set out above.

This Certificate was first issued on 18 December 2013 and remains valid for as long as the test methods and/or factory production control requirements included in the harmonised standard, used to assess the performance of the declared characteristics, do not change, and the product, and the manufacturing conditions in the plant are not modified significantly.

Signed on behalf of the British Board of Agrément:

Date of issue: 18 December 2013  
Expiry Date: 18 December 2016

Peter Maddern  
Head of Contractor & Systems Certification





# DECLARATION OF PERFORMANCE

## D07/CPR/03062013

1. <b>Product Type:</b> Unique identification code of the product type	TRITON TT VAPOUR MEMBRANE
2. <b>Type:</b> batch or serial number or any other element allowing identification of the construction product as required under article 11(4) of the CPR	TTVM – 130430-3
3. <b>Intended Use</b> or uses of the construction product, in accordance with the applicable harmonised technical specification, as foreseen by the manufacturer:	BE EN 1504-2:2004 SURFACE PROTECTION SYSTEM FOR CONCRETE – INGRESS PROTECTION AND MOISTURE CONTROL
4. <b>Name, registered trade name</b> or registered trade mark and contact address of the manufacturer as required under Article 11(5)	TRITON TT VAPOUR MEMBRANE  Triton Systems  Units 3 – 5 Crayford Commercial Centre  Greyhound Way  Crayford, Kent  DA1 4HF
5. <b>Contact address:</b> Where applicable, name and contact address of the authorizes representative whose mandate covers the tasks specified in Article 12(2)	Not relevant (see 4)
6. <b>AVCP:</b> System or systems of assessment and verification of constancy of performance of the construction product as set out in CPR, Annex V:	SYSTEM 4
7. <b>Notified Body (hEN):</b> In case of the declaration of performance (DoP) concerning a construction product covered by a harmonised standard	NOT APPLICABLE
8. <b>Notified body (ETA):</b> In case of the declaration of performance concerning a construction product for which a European Technical Assessment (ETA) has been issued:	NOT RELEVANT (SEE 7)

Triton Systems  
Units 3-5 Crayford Commercial Centre  
Greyhound Way  
Crayford, Kent  
DA1 4HF

Tel: 01322 318830  
Fax: 01322 524017  
[www.tritonsystems.co.uk](http://www.tritonsystems.co.uk)  
[info@tritonsystems.co.uk](mailto:info@tritonsystems.co.uk)

## 9. Declared Performance

Essential Characteristics	Performance	Test Standard	Harmonised technical specification
PERMEABILITY TO CO <sub>2</sub>	NPD	EN 1062-6	BS EN 1504-2:2004
PERMEABILITY TO WATER VAPOUR	$S_D = 0.22\text{m}$ (Class 3)	EN ISO 7783	
CAPILLARY ABSORPTION AND PERMEABILITY TO WATER	$0.007 \text{ kg/m}^2.\text{h}^{0.5}$	EN 1062-3	
ADHESION	1.4 MPa	EN 1542	
DANGEROUS SUBSTANCES	COMPLIES WITH 5.4		
REACTION TO FIRE	NPD		
RESISTANCE TO SEVERE CHEMICAL ATTACK	NPD	EN 13529	

## 10. Declaration

The performance of the product identified in points 1 and 2 is in conformity with the declared performance in point 9. This declaration of performance is issued under the sole responsibility of the manufacturer identified in point 4. Signed for and on behalf of the manufacturer:



Roger Parker  
Production Manager



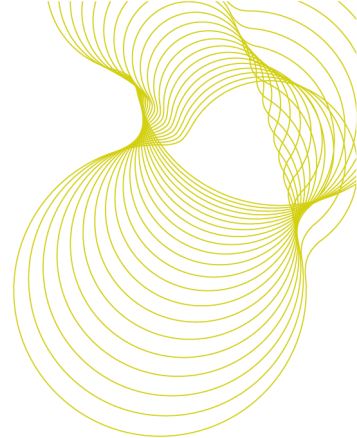


**Carbon Dioxide  
Permeability Testing of  
TT Vapour Membrane**

Prepared for:  
Triton Systems  
Units 3-5 Crayford Commercial  
Centre  
Greyhound Way  
Crayford  
Kent  
DA1 4HF

28 March 2014

Test report number 294853/R1



**Prepared by**

---

Name Dr Martyn Webb  
Position Principal Consultant, Building Technology Group, BRE  
Date 28/03/14

Signature

---

**Approved on behalf of BRE**

---

Name David Gall  
Position Associate Director, Building Technology Group, BRE  
Date 28/03/14

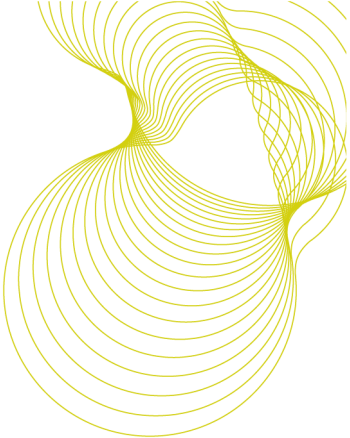
Signature

---

BRE  
Watford  
WD25 9XX  
T + 44 (0) 1923 664000  
F + 44 (0) 1923 664010  
E [enquiries@bre.co.uk](mailto:enquiries@bre.co.uk)  
[www.bre.co.uk](http://www.bre.co.uk)

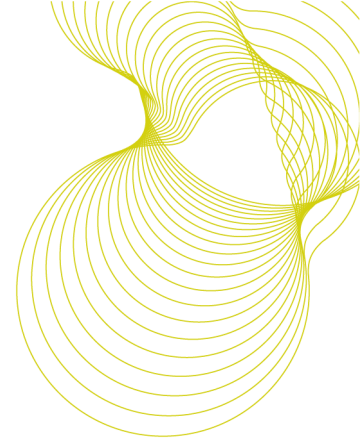
This report may only be distributed in its entirety and in accordance with the terms and conditions of the contract. Test results relate only to the items tested. BRE has no responsibility for the design, materials, workmanship or performance of the product or items tested. This report does not constitute an approval, certification or endorsement of the product tested.

This report is made on behalf of BRE. By receiving the report and action on it, the client – or any third party relying on it – accepts that no individual is personally liable in contract, tort or breach of statutory duty (including negligence).



**Contents**

1	Introduction	4
2	Details of tests carried out	5
3	Test results	6
4	References	7



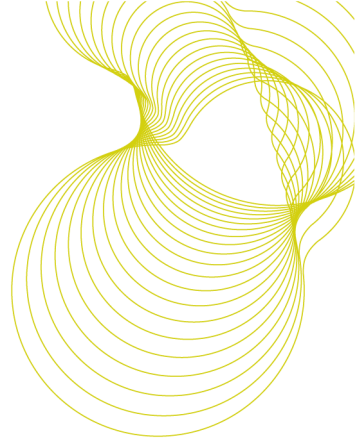
## 1 Introduction

At the request of Triton Systems, BRE have undertaken a carbon dioxide permeability test on the product described as TT Vapour Membrane.

Testing was carried out following the methodology described in BS EN 1062-6: 2002 – Paints and varnishes — Coating materials and coating systems for exterior masonry and concrete, determination of carbon dioxide permeability. Test method A (gravimetric) was used for the test.

Circular unglazed ceramic tiles of known permeability and 3.75 mm in thickness were supplied to the client for application and subsequent initial curing of the test product. These were then returned to BRE for carbon dioxide permeability testing.

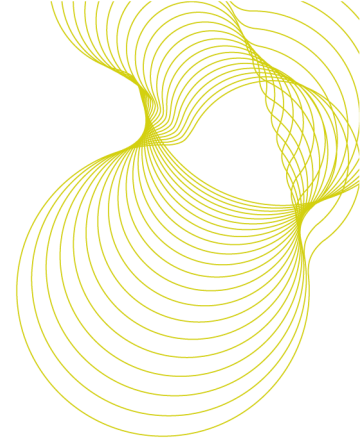
This report contains a factual report of the testing undertaken.



## **2 Details of tests carried out**

The testing followed the methodology described in BS EN 1062-6: 2002, using test method A. This is a gravimetric method utilising a carbon dioxide absorbant in the test cups with the coated face of the test specimens exposed to the test gas – 10 % carbon dioxide in air. The carbon dioxide permeability is calculated from the increase of mass over time until a steady state is reached.

Test specimens were nominally 90 mm in diameter and the product thickness was measured as between 0.34 and 0.50 mm. Testing was carried out between December 2013 and February 2014.



### 3 Test results

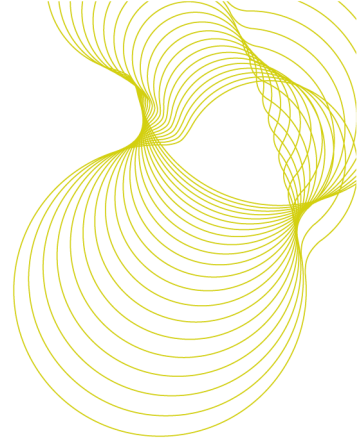
The test results are presented in Table 1 below:

BRE specimen number	291426/3	291426/4	291426/5	291426/6	<b>Mean</b>
Specimen thickness in mm:	0.34	0.50	0.48	0.49	0.45
Carbon dioxide permeability in $\text{g/m}^2/\text{day}$	0.60	0.58	0.56	0.57	0.58
Diffusion-equivalent air layer thickness ( $S_D$ ) in m:	417	430	443	430	431
Diffusion resistance number ( $\mu$ ) $\times 10^6$	1.23	0.86	0.92	0.89	0.97

**Table 1.** Summary of test results for TT Vapour Membrane

Specimen thickness (mm)	0.45
Carbon dioxide permeability ( $\text{g/m}^2/\text{day}$ )	0.58
Diffusion-equivalent air layer thickness ( $S_D$ ) in metres	431
Diffusion resistance number ( $\mu$ ) $\times 10^6$	0.97

In relation to carbon dioxide permeability, Table 5 of BS EN 1504-2: 2004 requires the  $S_D$  value to be  $> 50$  metres. On the basis of this test result, the product TT Vapour Membrane satisfies this requirement.



## 4 References

BS EN 1062-6: 2002 – Paints and varnishes — Coating materials and coating systems for exterior masonry and concrete; Determination of carbon dioxide permeability.

BS EN 1504-2: 2004 – Products and systems for the protection and repair of concrete structures; Definitions, requirements, quality control and evaluation of conformity — Part 2: Surface protection systems for concrete.

=====REPORT ENDS=====





## Material Safety Data Sheet

### Triton Systems

Units 3-5 Crayford Commercial Centre, Greyhound Way  
Crayford, Kent DA1 4HF

Tel: 01322 318830 Fax: 01322 524017

[www.tritonsystems.co.uk](http://www.tritonsystems.co.uk)

[info@tritonsystems.co.uk](mailto:info@tritonsystems.co.uk)

MSDS Ref:  
TR

Publication Date  
22/06/2007

Revision Date  
13/09/2011

## 1. PRODUCT NAME **TRITON TT VAPOUR MEMBRANE**

## 2. HAZARD IDENTIFICATION

Not regarded as a health or environmental hazard under current legislation.

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

## 4. FIRST AID MEASURES

GENERAL INFORMATION:

General first aid, rest, warmth and fresh air.

INHALATION:

Not relevant.

INGESTION:

Immediately rinse mouth and provide fresh air. DO NOT INDUCE VOMITING!

SKIN CONTACT:

Wash the skin immediately with soap and water.

EYE CONTACT:

Immediately flush with plenty of water or eyewash solution for up to 10 minutes.

## 5. FIRE-FIGHTING MEASURES

EXTINGUISHING MEDIA:

Water spray, dry powder or carbon dioxide. Extinguish with dry sand.

SPECIAL FIRE FIGHTING PROCEDURES:

No specific fire fighting procedure given.

UNUSUAL FIRE & EXPLOSION HAZARDS:

No unusual fire or explosion hazards noted.

PROTECTIVE MEASURES IN FIRE:

Wear full protective clothing.

## 6. ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS:

Wear protective clothing as described in Section 8 of this safety data sheet.

ENVIRONMENTAL PRECAUTIONS:

Eliminate all ignition sources. Keep people and animals away. Prevent entry into drains, sewers and watercourses. If spillage enters drains leading to sewerage works inform the local water company. If spillage enters rivers or watercourses inform the Environment Agency.

SPILL CLEAN UP METHODS:

Absorb spillage with non-combustible, absorbent material. Collect in containers and seal securely. Remove containers and flush area with water.



## 7. HANDLING AND STORAGE

USAGE PRECAUTIONS:

Read and follow manufacturer's recommendations.

STORAGE PRECAUTIONS:

Keep in original container. Store in closed original container at temperatures between 5°C and 30°C. Protect from freezing and direct sunlight.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

PROTECTIVE EQUIPMENT:



RESPIRATORY EQUIPMENT:

If ventilation is insufficient, suitable respiratory protection must be provided.

HAND PROTECTION:

PVC gloves are recommended.

EYE PROTECTION:

Wear approved safety goggles.

HYGIENE MEASURES:

Wash hands after contact.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE:

Viscous liquid

COLOUR:

Blue

ODOUR:

Mild

SOLUBILITY:

Miscible with water

RELATIVE DENSITY:

1.12 20 pH-VALUE, CONC. SOLUTION 6-8

VISCOSITY:

14000 – 20000 mPas 20

## 10. STABILITY AND REACTIVITY

STABILITY:

Stable under normal temperature conditions and recommended use.

MATERIALS TO AVOID:

Strong acids.

HAZARDOUS DECOMPOSITION PRODUCTS:

In case of fire, toxic gases (CO, CO<sub>2</sub>, NO<sub>x</sub>) may be formed.

## 11. TOXICOLOGICAL INFORMATION

GENERAL INFORMATION:

No specific health warnings noted.

INHALATION:

Not relevant at normal room temperatures. When heated, irritating vapours may be formed.

INGESTION:

May cause discomfort if swallowed.

SKIN CONTACT:

Skin irritation is not anticipated when used normally.

EYE CONTACT:

May cause temporary eye irritation.



## 12.ECOLOGICAL INFORMATION

ECOTOXICITY:	No data on possible environmental effects have been found.
DEGRADABILITY:	No data available.

## 13.DISPOSAL CONSIDERATIONS

GENERAL INFORMATION:	Waste to be treated as controlled waste. Disposal to licensed waste disposal site in accordance with local Waste Disposal Authority.
DISPOSAL METHODS:	Dispose of waste and residues in accordance with local authority requirements.

## 14. TRANSPORT INFORMATION

GENERAL:	The product is not covered by international regulation on the transport of dangerous goods (IMDG, IATA, ADR/RID).
----------	---

## 15. REGULATION INFORMATION

RISK PHRASES:	NC	Not Classified
APPROVED CODE OF PRACTICE:	Classification and Labelling of Substances and Preparations Dangerous for Supply	

## 16.OTHER INFORMATION

REVISION DATE	20/04/2010
REV.NO./REPL. SDS GENERATED	1
DATE	20/04/2010

The information contained in this data sheet is to the best of our knowledge accurate at the date of publication, but we cannot accept responsibility that it is sufficient or correct in all cases.

The data contained herein does not constitute a specification. Such information is available from the technical data sheet for the product.

Abbreviations: OES – occupational exposure standard. STEL – short-term exposure limit. LTEL – long term exposure limit. TWA – time weighted (8 hour) average. LEL – lower explosive limit. UEL – upper explosive limit.