



Triton Systems

Triton TT Super – Pile Cap Sealer Data Pack



Triton Contact Details:

Triton Systems Ltd.
Units 3 – 5 Crayford Commercial Centre, Greyhound Way, Crayford, Kent DA1 4HF

Tel: 01322 318 830

Fax: 01322 524 017

Email: info@tritonsystems.co.uk

www.tritonsystems.co.uk



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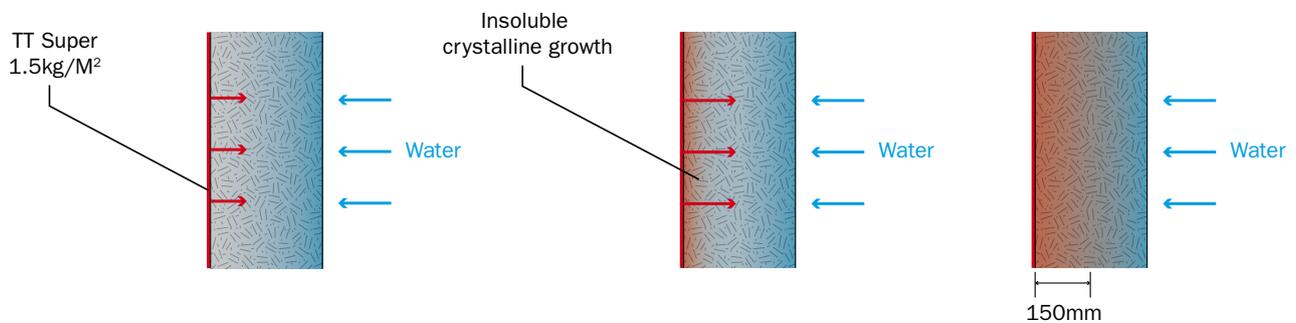
Triton TT Super – Pile Cap Sealer

1. Description

Triton TT Super is a surface applied system which waterproofs and protects concrete in depth. TT Super consists of ordinary Portland cement, specially treated quartz sand and a compound of active chemicals.

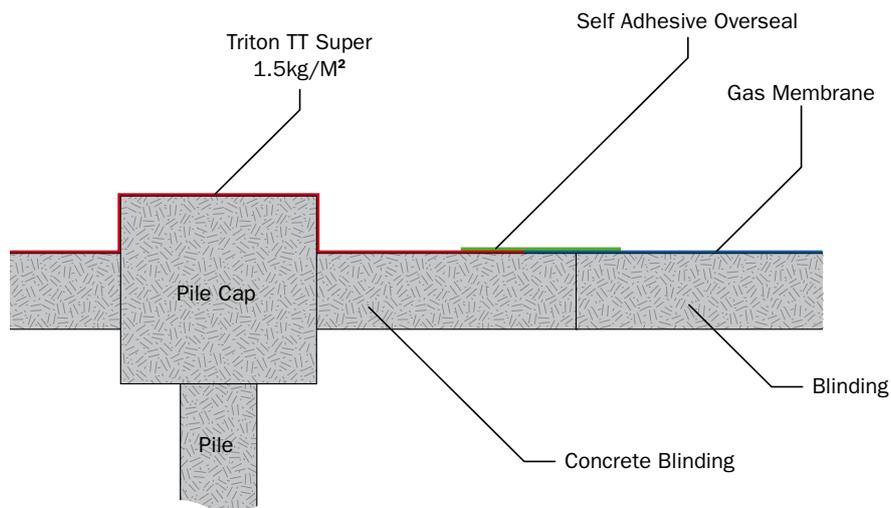
When applied to a concrete surface, the active chemicals react with the free lime and moisture within the concrete to form in depth, insoluble crystals which fill and block all capillaries, pores and minor cracks within the concrete.

As well as waterproofing, the TT Super also protects the concrete against seawater, aggressive groundwater and certain chemical solutions.



Triton Systems, working alongside Visqueen Building Products, has developed a suitable pile cap sealing system using the TT Super in conjunction with Visqueen membranes. This is shown in the detail section below and as per Visqueen drawing no. SW-01 attached.

The use of the TT Super to the pile cap, suitably sealed and linked to the sheet membranes, ensures protection to the pile cap and eliminates the sheet membrane through the pile cap and floor slab construction detail, thus eliminating the “slip plane” through this detail.



2. Technical Data

Colour:	cement grey
Hydrostatic water:	> 12 bars @ 28 days

Bulk Density:	approximately 1.25
Setting Time:	60 minutes

For full technical data and installation and application guidelines for TT Super please refer to TT Super data sheet and Health & Safety data sheet (attached).

3. Surface Preparation

All concrete surfaces to be treated with Triton TT Super must be clean and have an “open capillary” system. This is achieved by the removal of the laitance, dirt and grease etc, by means of either jet washing, grit blasting or scabbling.

4. Mixing & Application

TT Super is mixed mechanically with water, approximately 2 parts water – 5 parts powder by volume. It should be mixed for a minimum of five minutes until a consistency of thick oil paint is achieved.

Two coats of TT Super should be applied to the prepared concrete surface at a rate of 0.75kg/m² per coat. The second coat should be applied whilst the first coat is still “green”.

TT Super to be cured in accordance with TT Super data sheet attached.

Please refer to TT Super data sheet for full information.

5. Packaging & Storage

TT Super is supplied in either 25kg bags or tubs and should be stored unopened in its original packaging in a dry place. Shelf life is 12 months.

6. Health & Safety

Please refer to TT Super health & safety data sheet attached.

7. NBS Clause

J10 – 130 Proprietary Crystallization Active Mortar.

See www.nbsplus.com website or www.tritonsystems.co.uk for further details.

For further technical advice and information please contact Triton on 01322 318830.

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Fax: 01322 524 017
Email: info@tritonsystems.co.uk

www.tritonsystems.co.uk

Triton TT SUPER

Crystalline Waterproofing of Concrete.

Introduction.

Triton TT SUPER is applied to the surface of concrete or concrete blinding to provide in-depth waterproof protection by blocking the movement of moisture through capillaries and hairline cracks. It consists of Portland cement, specially treated quartz sand and a compound of active chemicals. **Triton TT SUPER** is supplied in powder form in 25kg bags or tubs and needs only to be mixed with water prior to application as a slurry to fully cured or existing concrete.

TT Super penetrates deeply into the substrate, leaving no physical membrane behind, this means that it is unaffected by loads imposed by the rest of the build above, layers are placed concrete on concrete thus eliminating the risk of a slip plane or un-bonded separation. This feature makes TT Super of particular use when sealing pile caps, ring beams, kicker joints or abutments to retaining walls. TT Super only works with concrete, for other substrates a slurry coating such as TT-55 should be used.

CRYSTALLINE WATERPROOFING:

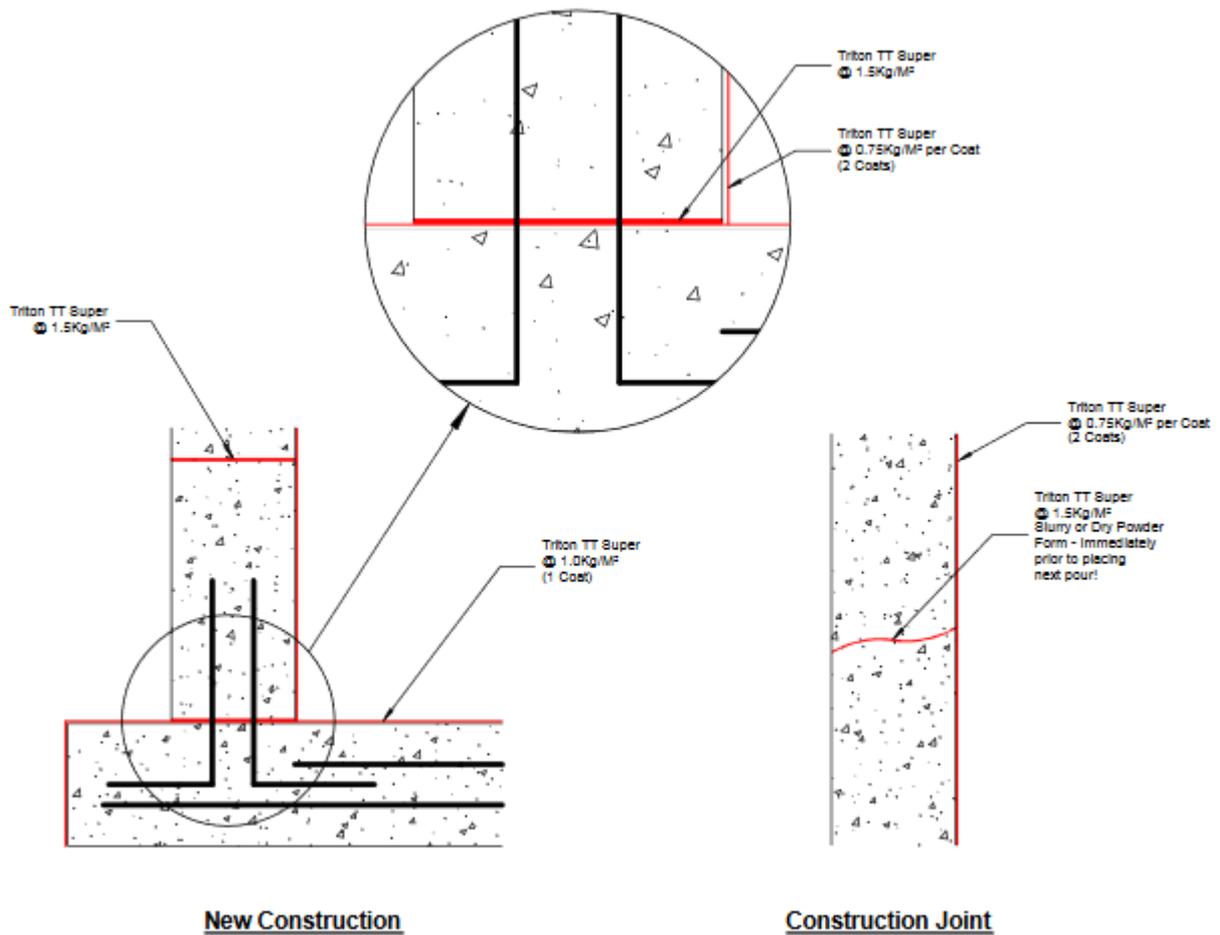
- Applied to either positive or negative side
- Permanently active
- In depth crystalline Waterproofing and protection from waterborne salts and chemicals.



Areas of Application

- Basements / concrete retaining walls generally or where a second form of waterproofing is required in conjunction with a Platon Cavity Membrane system and external access is not safe or practical.
- Concrete slabs and the blinding layer underneath when used externally.
- Construction joints, pile caps, ring beams.
- Water retaining structures, including reservoirs and water tanks.
- Swimming pools

- Sewage treatment plants
- Channels
- Car Parks



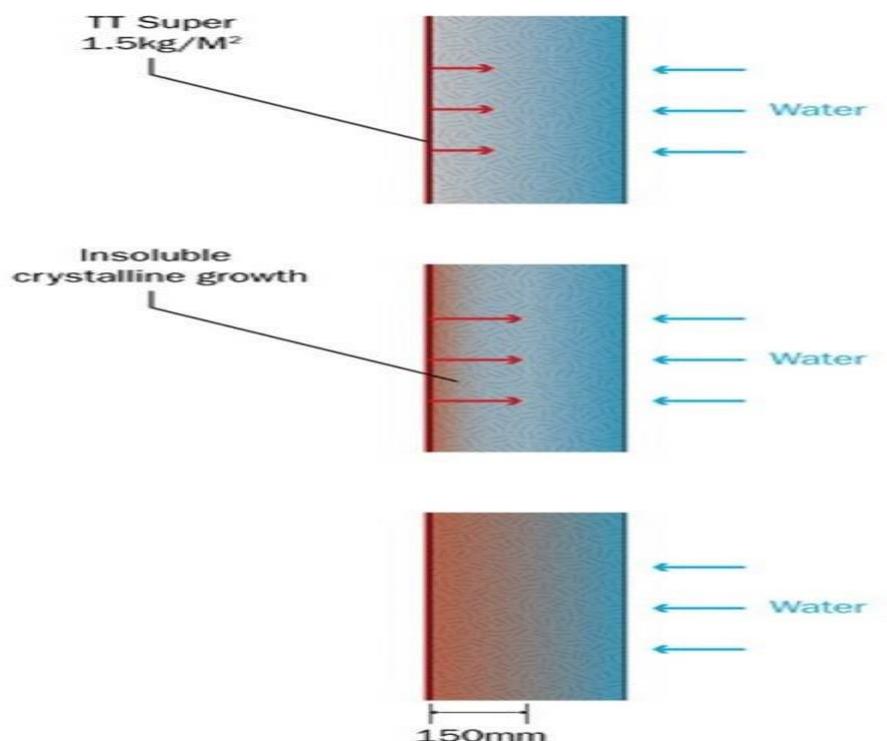
Technical Data

	Triton TT Super
Withstand water pressure	> 12 bars @ 28 days
Colour	Cement grey
Bulk density	Approx 1.25
Setting time	60 min

All data are averages of several tests under laboratory conditions. In practice, climatic variations such as temperature, humidity and porosity of substrate may affect those values.

Properties

When **Triton TT SUPER** is applied to a concrete surface the active chemicals combine with the free lime and moisture present in the capillary tract, to form insoluble crystalline complexes. These crystals block the capillaries and minor shrinkage cracks in the concrete to prevent any further water ingress (even under pressure). The waterproof layer will still allow the passage of water vapour through the structure (i.e. the concrete will still be able to “breathe”). In addition to waterproofing the structure, **Triton TT SUPER** protects concrete against seawater, wastewater, aggressive ground water and certain chemical solutions. Triton TT Super is a very cost effective alternative to physical membranes due to its rapid application to large areas and ease of detailing around complicated shapes. **Triton TT SUPER** is not a decorative material. Additional waterproofing measures will be required in order to satisfy the requirements for a Grade 3 Habitable environment as laid out in BS 8102:2009.



Surface Application

All concrete to be treated with **Triton TT SUPER** must be clean and have an “open” capillary system. Remove laitance, dirt, grease etc... by means of high pressure water jetting, wet sandblasting or wire brushing.

Faults within the concrete, in the form of cracks, honeycombing etc, must be chased out, coated with **Triton TT SUPER** and filled flush with **Triton Fillet Seal**. Leaks should be plugged with Triton TQS (see separate data sheet for instructions). Surfaces must be carefully pre watered prior to the **Triton TT SUPER** application. The concrete surface must be damp but not ‘shiny’ wet or covered with standing water.

Mixing

Triton TT SUPER is mechanically mixed with clean water to a consistency of thick oil paint. Approximate mixing ratio is 2 parts water to 5 parts of powder (by volume). Approximately 8 litres of water per 25kg TT Super.

Mix powder and water together in clean container using a slow speed paddle mixer for a minimum of 3 minutes until lump free and of a homogenous consistency. Ensure that you have added enough water to obtain the correct consistency and that the substrate is pre-wetted, if not, the product will not spread out efficiently and usage rates will be exceeded.

Mix only as much as can be used within 20 minutes and stir the mixture frequently. If the mixture starts to set do not add more water, simply re-stir to restore workability.



Application

Slurry.

Apply **Triton TT SUPER** in one or two coats according to specification by masonry brush, soft broom or appropriate power spray equipment. When two coats are specified apply the second coat whilst the first coat is still "green".

Dry powder (for horizontal surfaces only).

The specified amount of **Triton TT SUPER** is distributed in powder form through a sieve and trowelled into the freshly placed concrete after it has reached initial set (when the concrete can be walked on leaving an imprint 10mm deep).

Post treatment.

Once the **Triton TT SUPER** treatment has reached initial set it should be moist cured with a fine fog spray of water 2-3 times per day for three days and, if practical, covered with moist hessian or plastic sheeting. In hot or windy conditions, it should be moist cured more frequently. During the curing period the **Triton TT SUPER** treatment must be protected from rainfall, frost or puddling of water.

NOTE: Do not apply **Triton TT SUPER** at temperatures below +5°C. **Triton TT SUPER** cannot be used as an additive to concrete, please refer to **Triton TT SUPER ADMIX** data sheet.

Consumption

Concrete surfaces to be backfilled.

One coat of **Triton TT SUPER** at 0.75kg/m² followed by one coat at 1kg/m². Brush or spray applied.

Water retaining structures, internal concrete wall surfaces.

Two coats of **Triton TT SUPER** each at 0.75kg/m². Brush or spray applied.

Concrete slabs.

Triton TT SUPER at 1.00kg/m² applied in one slurry coat to hardened concrete or dry sprinkled and trowel applied to fresh concrete when this has reached initial set.

Construction Joints.

Triton TT SUPER at 1.5kg/m² applied in slurry or dry powder consistency immediately prior to placing the next lift/bay of concrete.

Blinding concrete.

Triton TT SUPER at 1.2kg/m² brush applied as a slurry prior to placing the overlay concrete slab. If placement of the slab is delayed, the TT Super will remain active but should be kept clean.

Packaging

25kg bags or tubs

Storage

When stored in a dry place in unopened, undamaged original packaging, shelf life is 12 months.

Health and Safety

Triton TT SUPER contains cement and is Irritating to eyes and skin. **Triton TT SUPER** may cause sensitisation by skin contact. Keep out of reach of children. Avoid contact with skin and eyes. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear suitable gloves.

For full information consult the relevant Material Safety Data Sheet.

* for chemical resistances please contact your Triton representative.

For further information, please contact:

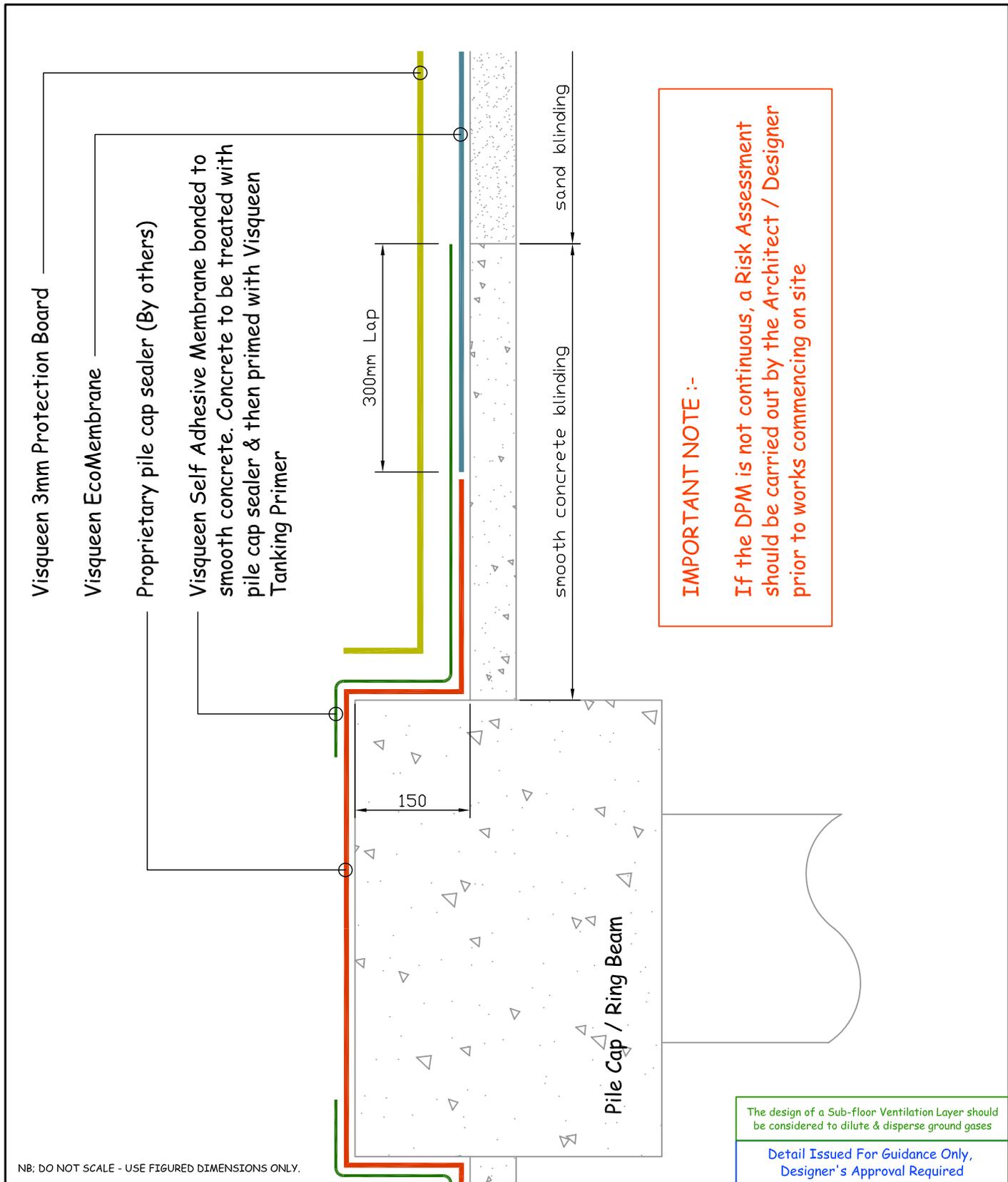
Triton Systems

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Tel: 01322 318830 Fax: 01322 524017

Email: info@triton systems.co.uk www.triton systems.co.uk

Ref: Triton SUPER 06/16



IMPORTANT NOTE :-
 If the DPM is not continuous, a Risk Assessment should be carried out by the Architect / Designer prior to works commencing on site

The design of a Sub-floor Ventilation Layer should be considered to dilute & disperse ground gases

Detail Issued For Guidance Only, Designer's Approval Required

NB: DO NOT SCALE - USE FIGURED DIMENSIONS ONLY.



Visqueen Building Products
 Contact Technical Support :
 t : 0870 6092084
 f : 0870 8508169
 e : enquiries@visqueenbuilding.co.uk
 www.visqueenbuilding.co.uk

Project: Standard Detail : Typical Pile Cap Detail.

Drawing No.- SW-01.	Date.- 03/08.	Scale.- NTS.	© COPYRIGHT RESERVED.
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TRITON SYSTEMS:

Tel: 01322 318830

J10 CEMENTITIOUS MORTAR TANKING / DAMP PROOFING

To be read in conjunction with preliminaries / General conditions.

TYPES OF TANKING / DAMP PROOFING

130 PROPRIETARY CRYSTALLIZATION ACTIVE MORTAR

- Substrate:.....
- Concrete.
- Existing concrete.
- Manufacturer: Triton Systems, 3-5 Crayford Commercial Centre, Greyhound Way, Crayford. DA1 4HF.
- Tel: 01322 318830. Fax: 01322 524017.
- Email: info@tritonsystems.co.uk. Web: www.tritonsystems.co.uk.
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- Product reference: Triton TT Super.
- Number of layers: Two.
- Thickness (overall): 2mm
- Coverage per coat (minimum): 1st coat: 0.75kg/m².
- 2nd coat: 1kg/m².
- Finish: Brushed.

350 MIXING

- Factory-made pre-blended constituents: Mix using methods recommended by Triton Systems.

360 COLD WEATHER

- General: Do not use frozen materials or apply coatings to frozen or frost-bound substrates.
- Air temperature requirements: Do not apply coatings when at or below 5°C and falling, or below 3°C and rising.
- Temperature of work: Maintain above 5°C until coatings have hardened sufficiently.

PREPARING SUBSTRATES

410 SUITABILITY OF SUBSTRATES

- Preparation generally: To Triton Systems recommendations.
- Stability and soundness: Free from movement and loose or weak areas that will cause failure of tanking.
- Key: To achieve firm adhesion of tanking.
- Contamination: Free from previous coatings and contaminants including dirt, dust, efflorescence, mould, oil, paint and plaster.
- Cracks, porous patches and other defective areas subject to water pressure and liable to admit water: Control and seal using Triton Quick Set / Triton Fillet Seal.

430 TANKING INTEGRITY

- Penetrations for fixings, services, etc: Permitted for bolt fixings using Triton Systems recommended methods.

EXECUTION

510 APPLICATION GENERALLY

- Application methods and coating sequence: As recommended by Triton Systems to achieve a water resistant structure.

530 APPEARANCE OF TANKING

- Thin slurry coatings: Consistent and free from hollows, cracks and crazing. Suitable to receive specified finish.

550 CURING AND DRYING

- General: Prevent premature setting, uneven drying and cracking of each coat.
- Curing coatings: Prevent evaporation from surface.
- Curing period (minimum): 7 days.

560 PROTECTION

- Mechanical damage: Prevent impact and abrasion.
- Application of protective coatings / linings: After completion of curing.