Installation Guide

TWS-EX100 and TWS-EX100GM waterproofing membranes

1. GENERAL PRINCIPLES

1.1 PLEASE ENSURE THAT ALL PERSONS INVOLVED WITH THE APPLICATION OF THE MEMBRANES HAVE STUDIED THE PRODUCT DATA SHEETS PRIOR TO THE INSTALLATION.

1.2 The substrate should be sound, smooth, clean, dry and free from sharp edges. Uneven surfaces MUST be made good, remove all loose material, dust and any other contaminants and make good any surface damage with Triton Fillet Seal or Triton Repair Mortar to provide a smooth, even surface prior to the application of TWS-EX Primer LT and TWS-EX100/TWS-EX100GM. TWS-EX100GM is a gas barrier membrane, but is used in exactly the same way as regular TWS-EX100.

1.3 Application should not be carried out under wet conditions or on to damp substrates. Note that condensation can occur on a cold substrate even in dry conditions. Ensure all previously applied coatings are compatible and are fully cured. Certain coatings may not require priming, contact Triton's technical team if in any doubt.

1.4 When bonding the membrane to the surface, care should be taken to avoid forming air pockets beneath the membrane. This can be achieved by applying pressure from the centre towards the edges.

1.5 Overlaps between roll sides and ends should be at least according to the minimum specification (50mm overlap onto adjacent side edges and 100mm overlap on end to end joints).

1.6 All overlap joints must be secure and fully bonded. A useful tool to assist this operation is a hand-held roller for vertical application and a foot roller for horizontal application.

1.7 End of roll overlaps of adjacent lengths should be staggered to avoid them being side by side on adjoining rolls, causing a four-fold overlap.

2. SITE PREPARATION

2.1 Prime after general cleaning. Priming will bind any remaining surface dust and will help stabilise a friable and powdery surface. Do NOT prime ICF blocks.

2.2 All vertical and steeply sloping surfaces must be primed using TWS Primer. On horizontal surfaces, where the membrane is beneath a slab, priming is not essential, but the adhesion to the substrate will be improved if the substrate is primed. Primer should not be applied on to the membrane and it is not necessary for overlap jointing. Only prime an area that can be covered with the membrane during the working day. Application of the membrane should commence as soon as the primer is dry.

2.3 Fillets should be installed when taking the membrane through acute internal angles to avoid the membrane bridging the surfaces and forming voids beneath the membrane. See typical detail drawings overleaf.

3. MEMBRANE APPLICATION

Horizontal Surfaces

3.1 Application of the membrane should be carried out by two applicators. Mark a straight line on the substrate using a chalk line to mark the position of the first roll.

3.2 Align the roll alongside this line at the chosen starting position and unroll 1.5 metres of the membrane.

3.3 Lift the end of the membrane and peel back about 500mm of the release paper. Fold this underneath the roll.

3.4 Apply the membrane to the surface by aligning it with the chalk line and bond the exposed self-adhesive compound to the substrate using firm pressure, applied to the centre and smoothing towards the edges.

3.5 Push the roll back to rewind it until the loose end of the release paper can be pulled away from underneath.

3.6 Take up the release paper, preferably winding this onto a wooden rod, until it is at a comfortable angle for the applicator.

3.7 Walk slowly backwards, applying an even strain to the release paper, which should now be wound up onto the wooden rod. Ensure that membrane is aligned along the line as the application proceeds.

3.8 Apply firm pressure on to the surface of the membrane to ensure good adhesion to the substrate and to avoid trapping air underneath. Use a broom to smooth the membrane down, working from the centre outwards. Avoid puncturing the membrane, the use of soft soled footwear is recommended.

3.9 Once the first roll has been applied, the next roll should then be positioned. Overlap this as specified (100mm), with the end of the first roll to form an end-lap joint and bond about 500mm to the substrate. It is important to ensure that the end-lap dimensions are in accordance with those specified and that the ends of the rolls are staggered.

3.10 Once the first width of membrane has been applied commence working on the width alongside this.

3.11 The application of this roll is similar to that previously described, except that this roll is positioned alongside the first roll to give the minimum overlap for side laps (50mm).

3.12 In addition to making a good bond with the substrate, ensure a watertight joint across and along the whole of the side-lap by pressing down on the overlap joint using a hand-held roller or foot roller. Large horizontal areas should be pressed firmly down with a suitably cushioned water filled roller.

4. MEMBRANE APPLICATION

Vertical Surfaces

4.1 Start by securing the end of the membrane at the top of the vertical surface. The precise method will depend on site conditions, including the height of the surface, accessibility and the construction detail. The top of the vertical membrane should be linked to any other waterproofing which may exist or to be installed.

4.2 It may be necessary to mechanically fix the membrane at the top by either "chasing" the top edge into the substrate or by nailing a wooden batten across its width.

4.3 Position the roll at the top of the vertical surface and unwind about one metre.

4.4 Peel back the first 500mm of the release paper, fold it down and then press the exposed self-adhesive compound onto the previously primed surface to achieve a strong bond.

4.5 Unwind and lower the roll of membrane towards the ground until the sheet is hanging vertically against the surface.

4.6 Take hold of the release paper and slowly but firmly pull it downwards. As the release paper is peeled away the membrane should be pressed against the surface, working from the centre outwards to remove any trapped air.

4.7 Once the first sheet of membrane has been applied the next sheet can be applied taking care to detail the vertical joints as specified.

4.8 On completion, the membrane needs to be protected from damage. Protection boards can be used on vertical surfaces to prevent damage from backfilling. Horizontal surfaces can be protected by insulation laid over or a floor screed.

5. ANCILLARIES

TWS-EX Primer LT (low temperature): A fast drying primer which can be applied to damp or slightly green concrete. 5 and 25 L.

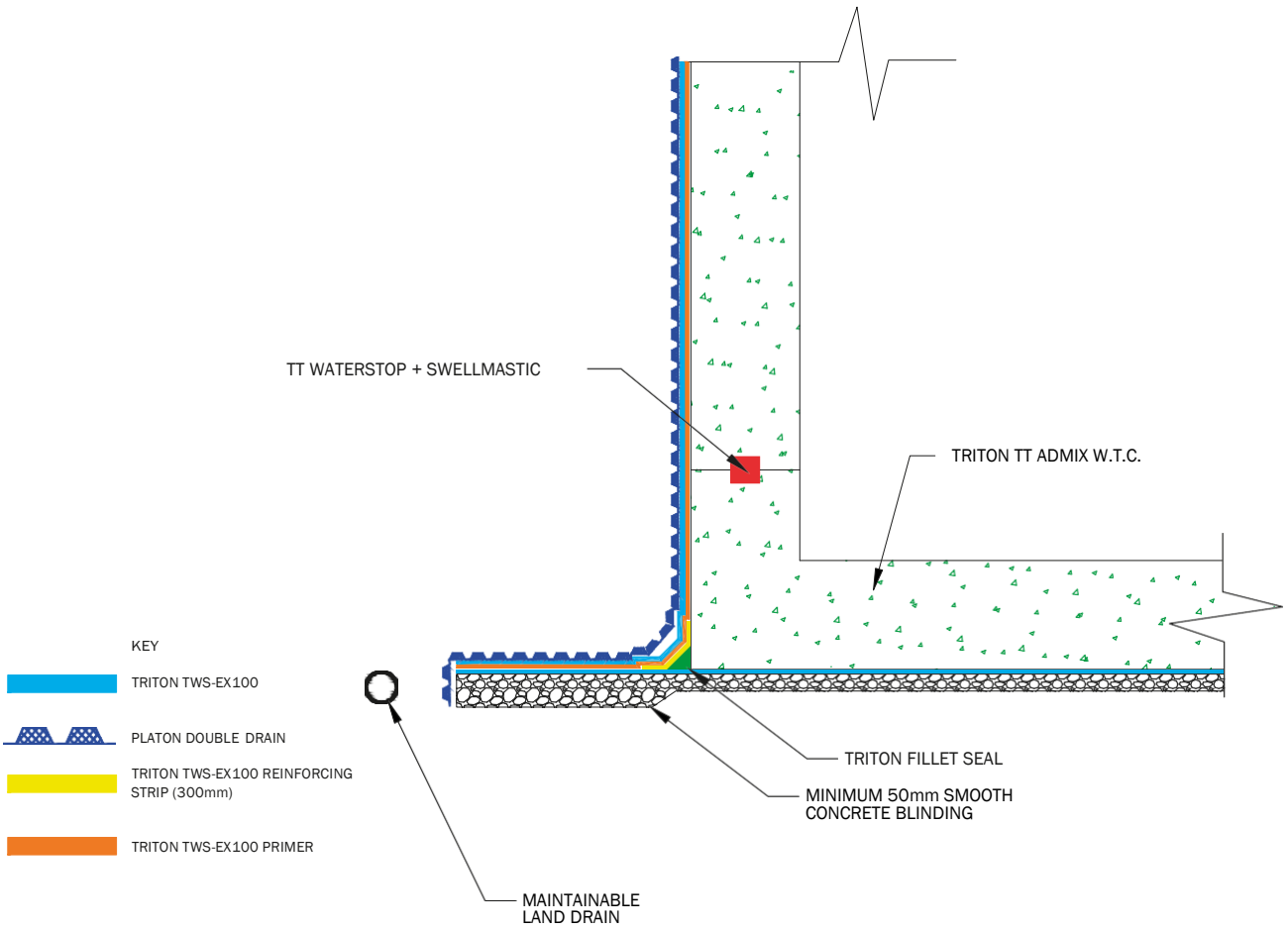
TWS-EX Reinforcing Tape: Strong tape used to provide reinforcement for TWS-EX100 or TWS-EX100GM membranes at edge and corner details. 300mm x 19.05 M.

Triton Fillet Seal: A cement based, polymer modified product for use when installing corner fillet joints. 25kg.

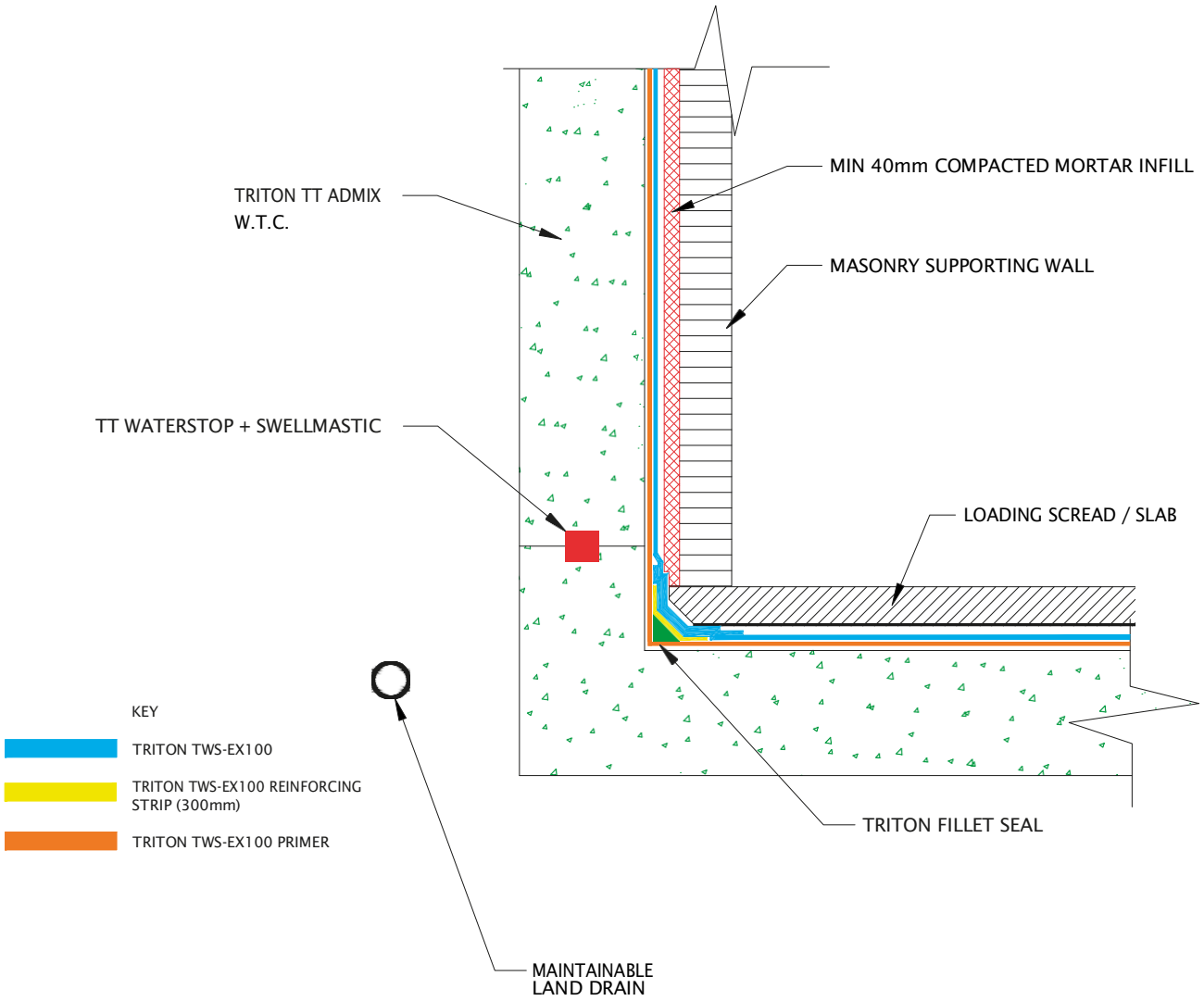
Triton Repair Mortar: A modified cement based repair mortar for concrete, render and screeds for use to provide an even, smooth substrate surface prior to the application of TWS-EX100 or TWS-EX100GM membranes. 10kg.

6. TYPICAL DRAWINGS

TYPICAL TWS-EX100 EXTERNAL
WATER PROOFING DETAIL

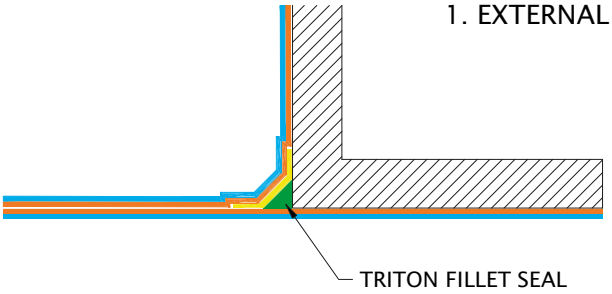


TRITON TWS-EX100 TYPICAL INTERNAL WATERPROOFING DETAIL

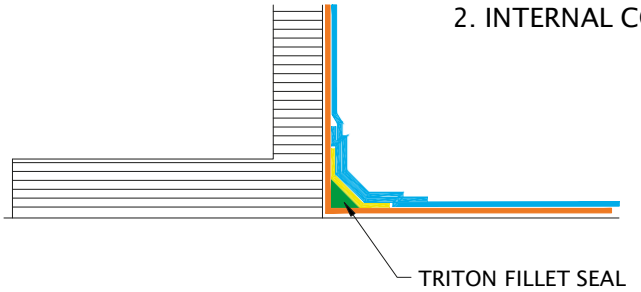


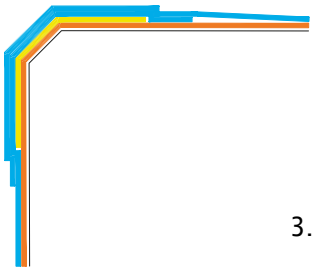
TYPICAL TWS-EX100 CORNER DETAILING

1. EXTERNAL CONTINUITY



2. INTERNAL CORNER





3. EXTERNAL CORNER

KEY

TRITON TWS-EX100

TRITON TWS-EX100 REINFORCING STRIP

TRITON TWS-EX100 PRIMER

Triton Contact Details:

Triton Systems
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