

# TIKIPLAN PVC T-LOCK

## Pre-Applied Mechanically Bonded PVC Sheet Waterproofing System

### DESCRIPTION

**TIKIPLAN PVC T-LOCK** is a high performance extruded PVC sheet waterproofing liner manufactured from plasticized polyvinyl chloride (PVC-P). The T-Lock sheet has a raised T profile that locks into the structure when concrete is poured directly against it producing a strong and secured mechanical bond with the concrete.

The PVC nature of T-Lock provides excellent ageing resistance and durability to protect concrete against earth movement.

Unlike conventional waterproofing systems, **TIKIPLAN PVC T-LOCK** acts as an externally placed water stop across the entire structure. Water migration is therefore prevented, limiting any leaks due to sheet damaged to a localized area that can be repaired.

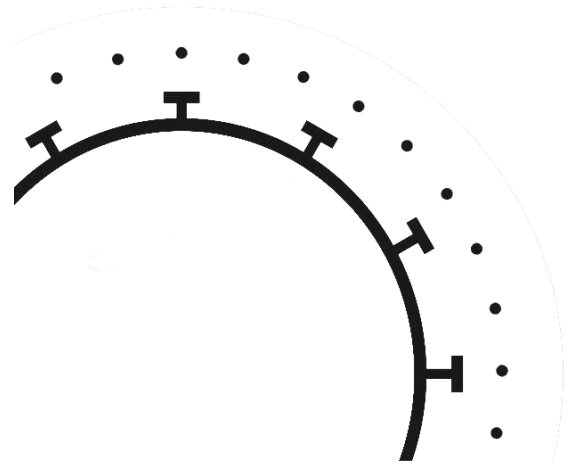
### ADVANTAGES

- T-shaped ribs provide tenacious mechanical adhesion to poured concrete.
- Eliminates the requirement of external water stops at construction joints.
- Able to be applied to damp surface, free of surface water.
- Remains unaffected by soil settlement, substrate movement and stratigraphic change.
- High puncture and abrasion resistance and excellent trafficability for on-site conditions.
- Impermeable to rising damp and ground water, methane and radon gases.
- Resistant to acidic, alkaline and general corrosive environments.
- Eliminates the requirement for primers, protection screeds or protection boards.
- Easily weldable together to ensure high strength lap joints and seams.
- Seamless sealing at wall-floor junctions.

### USES

**TIKIPLAN PVC T-LOCK** is developed to provide a tough water, chemical and corrosive resistant, gas proof liner for below ground concrete structures for waterproofing of:

- Basements and blind side walls
- Cut and cover tunnels
- Underpasses and box culverts
- Reservoirs and sewage treatment works
- Tunnels, irrigation canals, and dams



### APPLICATION INSTRUCTIONS

#### SURFACE PREPARATION

Surfaces to be treated should uniform, sound and even. Blinding slabs or compacted sub base fills should be free of surface water. All loose material, aggregates and sharp protrusive materials on the surface should be removed.

PVC T-Lock liner can be applied over damp surfaces.

#### APPLICATION

##### HORIZONTAL APPLICATION

The PVC T-Lock liner is carefully unrolled, aligned and placed on smooth prepared aggregate sub bases or blinding concrete (PCC) with the T profile facing up or facing the installer while maintaining the overlap of at least 25mm.

The overlap of adjacent sheet should be staggered relative to the previous sheet to avoid a buildup of end joints along the same line and joints sealed using hot air welding equipment (double-stitched hollow welding machine).

#### VERTICAL APPLICATION

The PVC T-Lock liner is carefully unrolled, aligned and placed against sheet piling or secant piling or formwork with the T profile facing up or facing the installer while maintaining the overlap of at least 25mm.

On vertical sections, the T-Lock liner is fixed mechanically to the substrate, the fixing carried at overlap area followed by sealing of overlap area using hot air welding equipment to form a seamless seal.

The overlap of adjacent sheet should be staggered relative to the previous sheet to avoid a buildup of end joints along the same line and joints sealed using hot air welding equipment.

At wall/floor junctions, T sections are planed along a 150-200mm section to form a smooth surface to enable ease of bending at junctions.

External edges and penetrations are sealed with a high grade PU sealant **TIKISEAL PU25** or PU liquid membrane **TIKI AQUASEAL PU-SHE**.

#### STANDARD COMPLIANCE

**TIKIPLAN PVC T-LOCK** liner complies to following standards:

- BRE Report 12: Methane, radon & CO<sub>2</sub> Protection
- BS 8102 Grade 2, 3 & 4
- BS 6920
- IS 15058 :2002

#### PROPERTIES

Properties	Values	Standard
Tensile Sstrength	>14 MPa	ASTM D638
Elongation	>250%	ASTM D638
Shore Hardness	55 ± 5	ASTM D2240

#### SUPPLY

**TIKIPLAN PVC T-LOCK** liner is supplied in standard roll size of 1.4m x 20m and at 1.5mm and 2 mm thickness.

#### STORAGE

**TIKIPLAN PVC T-LOCK** sheet must be stored above 5°C. Store under the shed & protect from extremes of temperature in original packaging.

Rolls must be stored in flat position.

#### SAFETY PRECAUTIONS

As with all synthetic products, care should be taken during use and storage of **TIKIPLAN PVC T-LOCK**.

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## **TIKITAR DANOSA (INDIA) PRIVATE LIMITED**

Tiki Tar Estate, Village Road, Bhandup (W), Mumbai - 400 078,  
Maharashtra, India. T: +91 22 4126 6699

E: [info@tikidan.in](mailto:info@tikidan.in) | W: [www.tikidan.in](http://www.tikidan.in)

