

Swell-able Water-bar (Bentonite) for In-situ Concrete

DESCRIPTION

TIKISWELL BT is Swell Bar is used for sealing of concrete construction joints, precast concrete segments, proofing of shafts and pipe penetration subjected to continuous or intermittent hydrostatic pressure.

TIKISWELL BT swells when it comes in contact with water resulting in increase in volume more than 400% thereby sealing gaps and pores in concrete joint and imparting resistance to hydraulic pressure.

Swelling of **TIKISWELL BT** in fresh concrete is minimal thereby maximizing the positive pressure seal provided by the hydrophilic bar to the protected joint.

The unique swelling action of **TIKISWELL BT** creates a positive pressure against the face of the concrete joint, thus preventing water passage through the protected joint.

USES

TIKISWELL BT is used:

- To seal construction joints.
- To seal construction joints in tunnel segments, precast concrete, cable, cable ducts etc.
- To seal pipe & steel work penetration through walls and slabs.
- To seal stationary and connecting joints.

ADVANTAGES

- Easy and secure application.
- Goods swelling properties on contact with water.
- Good elastic properties.
- Permanent water resistance, no leaching.
- Non-polluting, ecological user-friendly system.
- Need no hardening time.

PROPERTIES

| Properties | Values |
|---------------------------------|--|
| Tensile Strength | ≥1 Kg/cm ² |
| Specific Density | ≥1.25 gm/cm ³ |
| Shore A Hardness | 40-50 |
| Elongation at Break | ≥150 % |
| Swelling Rate by Volume | 300 % in pure water 175% in sea water |
| Service Temperature Range | -30 °C to 60 °C |
| Hydrostatic Pressure Resistance | 60 meters (6 bar) |

APPLICATION INSTRUCTIONS

SURFACE PREPARATION

The surface shall be clean and dry prior to installation of **TIKISWELL BT**. A smooth surface is preferable.

APPLICATION

TIKISWELL BT shall be applied to the middle of the construction joint. It is advisable to allow at least 8cm of concrete on both sides of the expanding sealant to prevent cracks in the concrete.

TIKISWELL BT can be fixed on the substrate by using gun grade **TIKI BOND NF** adhesive and thereby fully bonded to the prepared base.

Apply a desire bead-width of **TIKI BOND NF** adhesive using cartridge gun to the concrete surface where the **TIKISWELL BT** is to be installed. Ensure the width of the adhesive is slightly larger than the width of the swellable bar.

There must be enough adhesive so that when the **TIKISWELL BT** strip is pressed into the adhesive, the adhesive squeezes out from the sides and does not leave any void between the **TIKISWELL BT** strip and the concrete.

Rough surfaces will require more adhesive. Immediately press the **TIKISWELL BT** into the adhesive by unrolling the strip as you progress ensuring full and continuous contact. Do not allow time for the adhesive to form a skin. Allow adhesive to dry before pouring concrete.

Never use nailing to fix **TIKISWELL BT** to the substrate.

The ends of the **TIKISWELL BT** bars should be placed head-to-head against each other or with an end overlap of 10cm (strips are placed adjacent to each other with 10cm overlaps). Never place end laps of **TIKISWELL** butted to each other.

Protect **TIKISWELL BT** from rains until concreting.

During concreting, compact well around **TIKISWELL BT** profiles to provide a dense concrete without and honeycombs or voids.

Do not use in expansion joints.

SUPPLY

TIKISWELL BT is supplied in rectangular section strips. With shelf life of 2 years if placed in original packing, dry and frost-free conditions.

| Product | Dimension* (W x H) | Packing |
|-------------------|--------------------|-------------|
| TIKISWELL BT 2005 | 20mm x 05mm | 20mtr. Roll |
| TIKISWELL BT 2010 | 20mm x 10mm | 10mtr. Roll |
| TIKISWELL BT 2020 | 20mm x 20mm | 10mtr. Roll |
| TIKISWELL BT 2520 | 25mm x 20mm | 10mtr. Roll |

*Any other specification can be made to order.

STORAGE

TIKISWELL BT must be stored above 5°C. Store under the shed & protect from extremes of temperature, heat, direct sunlight.

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