

HYGROBAR WATER STOPPER**Product Data Sheet****Waterproof Joint Sealing Tape Used For Waterproofing Of Construction And Expansion Joints** **Description**

HYGROBAR is a water swellable waterstop manufactured from a blend of proprietary thermoplastics and swelling agents. It gradually swell when contact with water and has unique ability re-swell when ever again when it comes in contact with water.

 **Recommended For**

HYGROBAR is primarily used to seal construction joints. Typical fields include :-

- Waterproofing of construction joints between concrete pours
- Waterproofing of saw cut joints
- Waterproofing of pipe penetration
- Waterproofing of the wall-slab joints

It is designed and engineered to reduce pocketing on the sides.

 **Features & Benefits**

HYGROBAR is either glued with an adhesive or nailed to the existing hardened concrete prior to pouring of fresh concrete.

HYGROBAR exhibits many unique properties including:

- Profile engineered to increase keying with fresh concrete; centrally placed “V” in addition to rounded edges for reduced risk of pocketing.
- It has >1000% swelling capacity in potable water and fully reversible for an unlimited number of cycles.
- It has > 750% swelling capacity in sea water.
- Dimensionally stable : does not wash-out like Bentonite waterstops.
- Delayed swelling : Volume increase starts several hours after water contact, reaching full swellability in 8days
- Swelling pressure of > 5 bar (73 psi), extreme resistance against hydrostatic pressure.
- Resists 50 Bars or 50 m(160 feet) water head.

 **Limitations**

Avoid standing water on the waterstop as this may result in premature swelling of the material.

 **Application Procedure**

- ✓ **Substrate Preparation** : **HYGROBAR** is designed to seal construction joints in reinforced concrete against water passage.
- ✓ Remove all separating and bond-breaking substances from hardened concrete (eg. foundation and slab). Surface should be as level as possible with a minimum load bearing capacity of 15 MPa (2175 psi). Deep surface defects must be levelled off with a shrinkage - compensated.
- ✓ **Processing** :
 - Due to its enormous swelling pressure **HYGROBAR** must be installed min. 50 mm (2”) from each edge. Do not use **HYGROBAR** on concrete walls of less than 120 mm cross-section.
 - Mix a suitable amount of adhesive and apply an approx. 4 cm (1 ½”) wide mortar bed with a 4 mm (3/16”) or 6 mm (¼”) notched trowel. Push **HYGROBAR** immediately into the mortar bed whilst still fresh.

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- ✓ Fixing with nails: **HYGROBAR** can be nailed every 15 cm (6") to the prepared hardened concrete section.
- ✓ Cut overlaps, crossings or terminations of the waterstop in a 45° angle and ensure no gaps exist. Do not allow for any gaps exceeding 4 mm below or on the sides of **HYGROBAR** as this may significantly reduce the water tightness of the joint.
- ✓ **Curing :**
 - **HYGROBAR's** delayed swelling (approx. 5 hours @ 23°C) allows short term contact with water (such as hardened concrete pre-dampening or exposure to rain) prior to the next concrete pour.
 - **HYGROBAR** does not cause any dirt. Dust/dirt can be cleaned off **HYGROBAR** with a moist cloth. Do not install material that has already started to swell or is swollen. Wait until the material has completely dried and retrieved to its original dimensions.

Packaging

HYGROBAR is supplied in roll lengths of: 50 m (163') with 4 rolls per box. Total weight per box approx. 26Kg

Safety Information

The MSDS (Material Safety Data Sheet) is available on request.

Shelf Life

Can be kept for 24 months minimum in the original unopened pails in dry places and at temperatures of 5-35 °C.

Technical Specifications

| Properties | Specification |
|-----------------------------------|---------------|
| Colour | Blue |
| Dimensions | 5 x 20 mm |
| Weight | 0.12 kg/m |
| Substrate temperature | 5 – 35°C |
| Water impermeability (EN 12390-8) | 5 bar |
| Water absorption | 1.2 kg/m |
| Maximum swelling @ 8 days | |
| potable water | 1060% |
| Sea water | 750% |

For more information on products and application methods
Please contact Alchimica Technical Service at info@alchimica.co.in

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