

ECMASEAL HYDROSWELL

Hydro-Swelling Joint Sealing Strip

Description

ECMASEAL HYDROSWELL is water swellable, hydrophilic rubber based, joint sealing strip for construction joints, cold joints, pipe penetrations, subterranean prefab constructions, etc. ECMASEAL HYDROSWELL compacted in in-situ concrete or between prefabricated concrete elements, will expand volumetrically in contact with water creating a positive pressure against the face of the concrete joint to form a watertight seal in the joints thus preventing water passing through the protected joint.

Areas of application

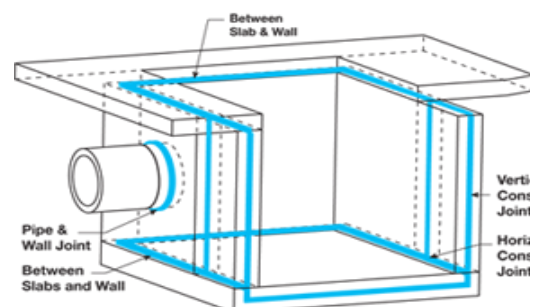
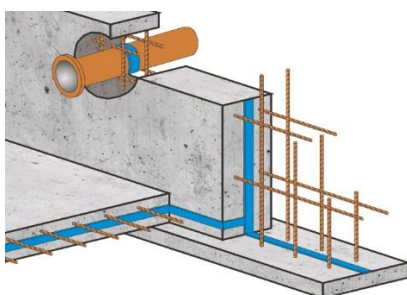
- Construction and cold joints in concrete
- Underground concrete structures such as basements, water reservoirs, swimming pools, UG metro constructions, tunnels, etc.
- Pipe penetrations
- Sewer systems
- Subterranean prefabricated concrete elements

Advantages

- Excellent expansion properties in contact with water
- Seals the voids in the joints
- Flexible and elastic, can absorb construction movements
- Reversible and infinite swell capability
- Expands slowly to ensure non-disturbance of fresh concrete
- Does not corrode or degrade in fully immersed condition
- Easy to install

Technical Specifications

Specific Gravity @27 (°C)	1.30 ±0.05
Elongation at Break (%)	>300
Tensile Strength (N/mm ²)	1.5 Minimum
Hardness Shore A	45 Minimum
Change in Volume after 48 Hrs. (%)	50 Minimum
Change in Volume after 14 Days (%)	250 Minimum



Surface Preparation

The concrete substrate should be clean and free of standing water. It is important to remove/clean loose particles, dirt, grease from the surface by chipping and washing with suitable equipment such as high-pressure air, water, or wire brush. The surface of the joint should be dry, whenever necessary, air blower should be used; the excess humidity will cause a lack of bonding and even release of the strip during the application.

Installation

Cut the ECMASEAL HYDROSWELL to require length and apply at the concrete joint with suitable adhesive. The glue is applied both on the concrete and the ECMASEAL HYDROSWELL and is allowed to dry (until tacky to the touch) in order to obtain a maximal adhesion and easy application. Alternatively use nails @ 25-30 cm distance.

ECMASEAL HYDROSWELL is placed in the middle of the joints, between the inner and outer reinforcement bars (as shown in picture). The minimum concrete cover thickness around the ECMASEAL HYDROSWELL is to be at least 7cm on order to counter balance the expansion pressures of the strip. The ECMASEAL HYDROSWELL ends are simply butted together. A good and uniform adhesion of the strip to the concrete surface is of the utmost important. For use in in-situ concrete, the strip can additionally be nailed to prevent it from slipping away during the concrete pour. Excessive delays between water-bar installation and concrete placement should be avoided. Prior to concrete pour and during pour, the water-bar should be carefully checked for gaps and that it has not become detached from the substrate or distorted through premature swelling.

Precautions

- ECMASEAL HYDROSWELL should not be used for expansion joints or those subject to movements in excess of 2mm.
- ECMASEAL HYDROSWELL swell rate is dependent on the quality of water and the temperature of water. The lower the temperature and contaminations, the lower the swell rate.
- ECMASEAL HYDROSWELL must not be immersed in water prior to concrete placement

Shelf Life

12 months when stored in un-opened and dry conditions, away from excessive moisture and water.

Packaging

10mm x 10mm, 20mm x 6mm, 20mm x 10mm, 25 mm x 20 mm sizes are available in packs of 100 RMT lengths and other sizes can be provided for bulk orders.

ECMAS CONSTRUCTION CHEMICALS PVT. LTD

7-4-124 Gaganpahad,
International Airport Road
Hyderabad, India - 500 052
phone: +91-40-24360014, 16, 17
email: ecmas@ecmas.co.in