

HydroTape® Quellfugenband

Swellable profile for concrete joints

HydroTape® Quellfugenband: Safe and efficient permanent sealing for concrete working joints. More than 25 years practical experience and millions of meters sealed joints proof the quality of HydroTape swelling profile. Quality is the best reference.

HydroTape® Quellfugenband is made of caoutchouc, it is soft-elastic and easy to apply. This feature makes the application efficient. Special know-how is not necessary. The profile absorbs water; HydroTape® swells. The profile volume expands proportional to the absorbed water amount.

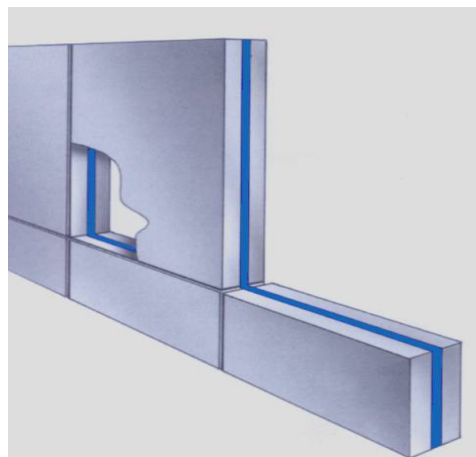
Because of the swelling effect and the emerging swellpressure HydroTape profiles are self repairing. This means changes in the joint cross section of the joint are adapted very quickly.

**Very important:
Limited
swell pressure!**

Professionals know that the swelling process causes considerable energy. Under inappropriate circumstances (e.g. green concrete) the swellpressure causes damages. The delicate cell structure of the HydroTape® profile limits the pressure of the expansion by internal compression of the profile. This prevents unwanted high pressure efficiently. The pores of the profile are closed and can not transport any water.

HydroTape® doesn't contain any flighty substances or materials which could be washed out. This is the reason why HydroTape will be soft. The typical properties of a flexible rubber will be preserved over the years. The resistance against temperature changes and the flexibility by low temperatures are excellent.

The swelling of HydroTape® doesn't create a gel body as e.g. swellable seals made of Bentonite or Acrylate. This property enables HydroTape rubber to keep the shape, there strength and there mechanical resistance. Movements of the building doesn't destroy the rubber and even water pressure and quick running water have no chance to wash the rubber out.



HydroTape® Quellfugenband

Sealed joints.
Used for precast elements as well as site concrete

The quality and functional safety of the product is guaranteed thorough examination and is certificated through experts report!

Slow swell ratio assures even by rain a trouble-free application

HydroTape® swells isotropic in contact with water, where it is in direct contact with water. The product doesn't transport water. No wicking action!

The swelling of the highly flexible material adjusts all unevenness through the expansion.

HydroTape® is used with economic and technical advantages in the special building industry and everywhere where building structures need the protection against water and watery substances.

- **Sealing of connection joints and dilatation joints**
- **Sealing of precast elements, tubing segments, pipe coupling**
- **Sealing of cable and pipe penetrations**
- **Also swells in salt water**



The easy and time saving application and the attractive price makes HydroTape so efficient.

HydroTape® is a flexible elastomer made of high quality caoutchouc. The range of application is wide, from joints and gaskets in the vehicle manufacturing, rubber profile for patent glazing, sealing under clamp connections, roof-edge-connections etc.

For the above mentioned applications the typical swellable property is an additional insurance. This double safe system comes into operation when the sealing effect of the elastomer fails. E.g. through mechanical damages.

Important: In water dissolved electrolyte, so salt (Me^+ und Me^{++}) or cementitious contents, doesn't have any influences on the swellability of HydroTape® products. The profiles are suitable for salt water or salt containing water, canalisation, waste water plants, liquid manure containers or with harmful substances polluted water.
This is a big advantage compared to other profiles available.

The volume increase, if wetted all-side even with water, is 3-10% in the first hour. The maximum swelling volume is reached after 60 - 240 hours this depends on the form and the dimension of the profile.

The swelling process is completely reversible this means after drying shrinks the volume back to the original size. The swelling process is immediately activated again by water contact.

Non-ageing and functional safe

● **For safety reasons, the swelling volume (and thus the maximum possible swelling pressure) of HydroTape® is limited to approx. 140 % (volume percent). This reliably prevents damage to the concrete caused by excessive swelling forces!**

Properties

HydroTape® is chemical inert. It doesn't contain any contents which are corrosive for concrete and the reinforcement neither nor damage the usual sealing materials like PVC or bitumen, SBR or their mixtures.

HydroTape® is environmental neutral and without any risky or toxic substances. The application is safe and the disposal uncomplicated. HydroTape is non dangerous for ground water and the profiles are non-ageing. Neither the swellability nor the Elastomerstructure will be negative influenced by time.

Typical product information

Compression load deflection (DIN 53577)	: 0,85 N/mm ²
Tensile strength (DIN 53405)	: 0,45 N/mm ²
Density	: 0,95 - 1,15 gr/ml

The chemical resistance is high and matches the resistance of normal PUR caoutchoucs. HydroTape® is resistant against normal concrete contents, mineral oil and petrol, many acids and bases and doesn't become brittle under light and ozone effect.

Fire behaviour

HydroTape® is flammable, but does not drip when exposed to direct flame. If required, a special flame-retardant type can be produced which meets the requirements of DIN 4102 for fire resistance class "B-1".

Installation

In the typical application - in concrete joints - the profiles are laid quickly and easily by gluing them in with a special adhesive paste, made of cartridges. For very uneven surfaces (concrete!) it is advisable to use the also water-swellable mastic "HydroSeal 355®". On smooth surfaces, fast setting cyanoacrylates ("superglue") or contact adhesives can also be used. The ingredients of these adhesives do not harm HydroTape®.

A mechanical fixing with nails, screw anchors or clamping is not recommended. **Mechanically fixed profiles could swim up while pouring the concrete, they loose the contact to the joint surface and create a leakage.**

Joints must be connected tight with straight cutted ends or overlapping an additional glueing is not necessary but done easily with superglue.

Packaging Storage

Store profiles dry and originally packed.

Typical and recommended cross sections for concrete building applications
20 x 8 mm precast element joints
20 x 10 mm, 20 x 15 mm or 20 x 25 mm joints in site concrete

- **Special products with other cross sections or lower or higher swellability are available.**

Reinforced profiles start the swelling process with growing thickness



**Quick installation
with double safety:**

**HydroTape®Quellfugenband glued
with
HydroSeal®355**

Recommended Accessories

HydroColl®430

A pasty glue for the quick installation on all typical building undergrounds with excellent adhesion even on wet concrete.

HydroColl®430 hardens quick, constant and smooths small unevenness in the underground. Delivered in plastic cartridges with 310 ml and gunned with normal glazing pistols

HydroSeal®355

One component PUR swelling paste. Excellent adhesion on concrete and steel. Suitable for the compensation of rough undergrounds and for the protection of junctions and connections and as swellable glue for mounting.

Delivered in aluminium cartridges with 310 ml and gunned with normal glazing pistols.

These technical information describe the present-day state of knowledge these product. They should only inform about the possibilities of application and could not release the applicator of his commitment to check the possibility to use the product for the required application. Information for processing can be found in processing instructions of our product. Information about safe handling can be found in our current safety data sheet.

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ARCAN Waterproof

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passion to invent 