

## MASTERSTOP bentonite swelling tape for the waterproofing of construction joints



MASTERSTOP bentonite swelling tape for reliable waterproofing of construction joints as well as penetrations in concrete structures against water penetration. The swelling of the tape and the swelling pressure developed during the swelling process prevent water penetration.



MASTERSTOP bentonite swelling tape

MASTERSTOP bentonite swelling tapes are seals that expand upon contact with water. They consist of finely ground, highly swellable clay mineral (sodium bentonite), embedded as a bonding agent in a matrix of unvulcanised rubber.

### Technical specifications:



Profile:	25 x 20 mm
Article number:	010010 / 010011
Chemical basis:	Sodium bentonite
Colour:	Black (Art. no.: 010011) Green (Art. no.: 010010)
Surface:	Smooth
Consistency:	Malleable
Bulk density:	1.52 g/cm <sup>3</sup> (DIN EN ISO 1183-1)
Weight:	22.80 kg per carton

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Volume increase:	Up to 240%, in normal water (pH 7) Up to 120%, in liquids that are highly aggressive to concrete Up to 220%, in alkaline liquids
Thermal application range:	Approx. -30°C up to +90°C
Test certificate / approvals:	ETA – 16 / 0735  Investigation report, MFPA Leipzig No.: PB 5.1 / 12-299
Pressure watertightness:	Up to max. 5 bar (50 m water column)
Suitable for zones with frequently varying water levels:	Yes
Corresponds to:	Utility class A for the wear classes 1 and 2 in accordance with the WU guideline
Resistances:	E.g. Alkalis in general Urea Liquid manure and slurry Biogas Radon De-icing salt Substances obtained by means of fermentation Substances obtained by means of composting Waste water in water treatment plants Further resistances are available on request
Pack:	Size: 25 x 20 mm 30 m per carton 6 rolls of 5 m each  30 cartons per pallet
Storage:	Store in undamaged and unopened original packaging in a dry place out of direct sunlight.

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Disposal:

Can be disposed of at municipal waste landfill sites or waste incineration plants, taking into account the local waste disposal regulations.

Fastenings:

Swelling tape adhesive for bentonite swelling tape  
Art. no.: 010050



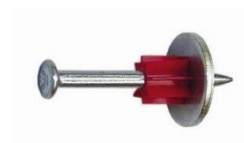
Swelling tape grid for 25/20  
Art. no.: 010060



Nails for manual fastening  
Art. no.: 010090



Nails for bolt-firing tool  
Art. no.: 010080



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## Application:

A typical application of the MASTERSTOP bentonite swelling tape is waterproofing of construction and connecting joints in concrete structures at ground water level. It is also suitable for all types of penetrations in the building structure in areas that require permanent waterproofing.

Integrated into concrete construction joints, these profiles expand upon contact with water and permanently seal the joint gap. Owing to the high swelling pressure of the bentonite, the swelling compound also penetrates damaged areas (gravel clusters, cracks) and seals these kind of leaks.

The swelling profiles are not only quick, easy and cost-efficient to install, but they also provide a reliable permanent seal - even against high water pressure! They provide peace of mind right from the outset by excluding potential defects and damage arising from conventional construction. Leaks due to water permeation and poorly sealed concrete in the joint area no longer occur.

## Installation:

Also see our installation video at [www.mastertec.eu](http://www.mastertec.eu)

  
Installation-  
video



MASTERSTOP bentonite swelling tape profiles are always installed centrally in the joint within the reinforcement. In doing so, sufficient concrete cover must be ensured. The concrete cover should be at least 8 cm as otherwise the high swelling pressure of the bentonite may damage the concrete.



Fastening with swelling tape grid



Fastening with swelling tape adhesive

The tape ends are butt jointed and gently tapped or pressed together to form a homogeneous surface.

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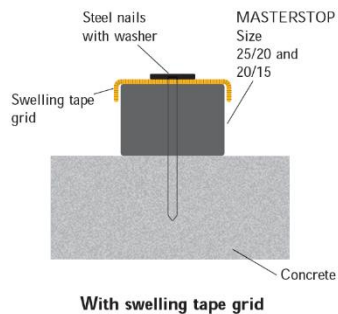
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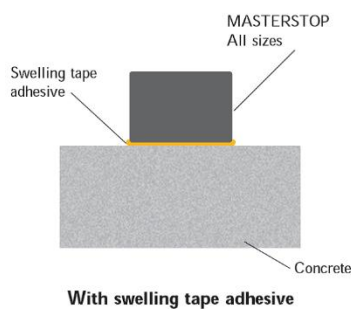
The profiles are fastened either by gluing them with swelling tape adhesive, or mechanically with nails or wide-meshed U-shaped grid profiles.

## Fastening options:



### With swelling tape grid:

Position the swelling tape correctly. Push the fixing grid firmly onto the bentonite swelling tape. Fasten using corresponding nails and either by hand or mechanically using a bolt-firing tool. The distance between nails should not exceed 20 cm in the longitudinal direction of the swelling tape.



### With swelling tape adhesive:

Apply a bead of swelling tape adhesive to the prepared substrate from a commercially-available cartridge lengthwise along the centre of the intended path of the swelling tape. Push the swelling tape firmly into the adhesive until the swelling tape adhesive emerges on both sides of the swelling tape. Ready for use in approx. 4-6 hrs. (depending on weather)

The concrete surface must be clean, level, and free of burrs and defects, free of formwork release agent and loose elements, as well as dry.

If the surface is extremely rough or uneven, it is advisable to smooth out the surface beforehand by applying MASTER-Mastic swelling paste.

The profiles can then be placed in the wet MASTER-Mastic swelling paste. This is an easy way to achieve a perfect form fit. Our MASTER-Mastic swelling paste, a mixture of bentonite and rubber solution, is ideal for this. This is processed using commercially-available cartridges, and a bead of bentonite compound of any required thickness can then be conveniently and systematically applied and spread out over the surface to perfectly compensate for any unevenness.

MASTERSTOP bentonite swelling tape must only be processed when dry in dry weather conditions.

The geometry described must not be modified. Swelling tapes must not be installed if their rectangular geometry has been modified, or if they have become soiled or damaged!

Swelling tapes that have already expanded must not be installed!

Swelling tapes that have been installed and have expanded before placement of the concrete must be replaced!

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## Safety aspect:

MASTERSTOP bentonite swelling tape does not contain any hazardous substances and poses no problems whatsoever in terms of handling and application. To the best of our knowledge, it contains no substances that are harmful to groundwater or could trigger health problems or allergic reactions in the installer.

Nonetheless, we recommend that an appropriate level of hygiene is observed during application and that hands are washed as a basic rule before meals.

In the event of a fire, low temperature carbonisation gases that are harmful to health and combustible may be produced by the bonding agent contained in MASTERSTOP. However, the material is self-extinguishing and only burns if a sufficiently strong flame is continuously applied.

## Basic principles:

All dimensions and information in this data sheet reflect the results of the laboratory tests that have been carried out.

Deviations from the values determined by us under laboratory conditions are possible due to environmental and operating conditions beyond our control.

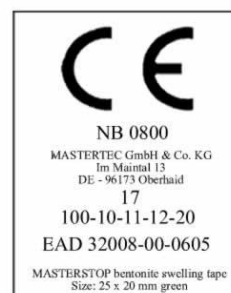
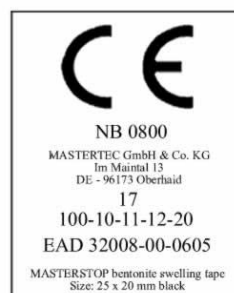
The data in this data sheet only applies for the product delivered by us.

The product data corresponds only to the specifications in Germany. Possible country-specific deviations are not taken into account here.

## Disclaimer:

The technical information reflects our current knowledge of the MASTERSTOP bentonite swelling tape. It is intended only as information for users. As we do not know the envisaged applications and processing conditions, it is the responsibility of the user to carefully check that the product is suitable for the intended purposes. Due to the different components at the installation site and the working conditions in place there, MASTERTEC cannot provide any guarantee whatsoever for the result of the work. Claims arising from any legal relationship can only be recognised in the event of wilful intent or gross negligence, irrespective of the statements made here or advice provided verbally. In this case the user must prove that he has provided MASTERTEC in writing with all the information required to correctly assess the installation situation in good time. Subject to necessary product specifications or further developments. By providing this information MASTERTEC does not intend to infringe third-party rights. The latest data sheet in each case applies. Our corresponding terms and conditions of sale and delivery apply.

Version dated 12-2016



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