

Installation instructions

MIGUTAN-Systems with short AAS sheets



Please read these installation instructions completely before installation. If you have any questions, please contact the Migua service team.

The profiles are anchored as standard with concrete anchors of the type MMS-plus from Heco. Further anchor types can be found on the standard anchoring list on our website <https://www.migua.com/de/produkte/migutan/>.

1.1 General Information

MIGUTAN systems will be fabricated according to a site measurement to ensure perfect fit.

The metal parts will be supplied in single length of max. 4 meter.

Rubber parts will be preferably supplied in one continuous length. Systems larger than approx. 20 m may be supplied in several parts, due to handling and transport. In such case site welding of the sealing insert and the side sealing sheets are necessary. We offer such work on request. We offer as well trainings in our workshop to enable you to do the welding on site.

The installation of the different MIGUTAN systems are similar in principle. The following in-structions are based on MIGUTAN profile FP 90/35 Ni with short AAS sheets.

This product can only fulfil its design function if it has been correctly selected and correctly installed. This means that joint width (after allowance for concrete shrinkage), total joint movement and expected load must have been considered and accounted for.

1.2 Marking

For identification the order number is written on a white label on top of the capping.

Order no.:

123456

Each MIGUTAN system is marked with the system number, continuous numbering and the length of each system.

The system numbers are mentioned on the workshop drawings by coloured labels. The same labels stick on the capping and on the rubber parts.

If the connection joint filler profile AAP is used the label will be stick on the bottom part of the stainless steel capping.

A copy of the workshop drawings will be supplied with each order.

SYSTEM No.

1

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4

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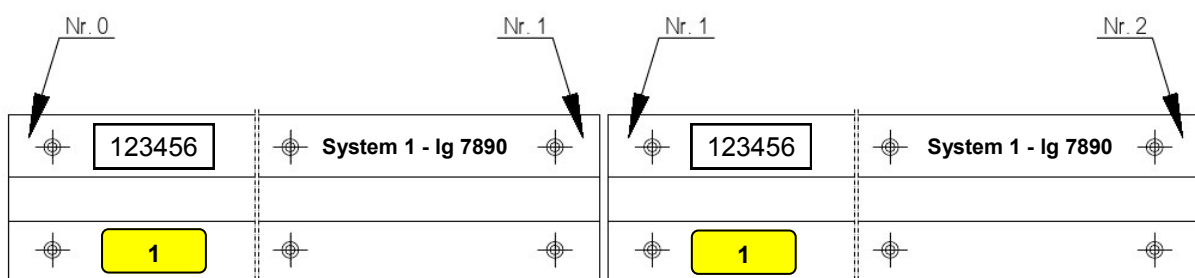
Each system has a continuous numbering which starts at one system end with nr. 0. The continuous numbering shall ensure that metal and rubber parts fit together. The beginning of the numbering (nr. 0) is shown on rubber parts, metal parts and on the drawings.

The continuous numbering is written on the yellow protection tape, but also punched with punching numbers into the aluminium angle.

The length of each system is written on the yellow protection tape, the fixing angle as well as the rubber parts.

Please see the following sample:

System no. 1 - Order no. 123456 with a total length of 7890 mm.



The yellow protection tape has to be removed after the work on-site is finished.

1.3 Pre-preparation

Lay out the MIGUTAN profiles onto the floor and over the joint gap so you can become acquainted with the system and can check the correct measurements.

Each end of the metal parts is marked with a number that is in sequence with the number of the preceding length. Lay the lengths down, end-to-end, matching-number to matching-number.

It has to be considered that the rubber parts has some distance to walls, columns, etc..

The distance has already been considered in our measurement and fabrication.

At floor/wall connections the distance are incorporated in the spacer, which has to be directly connected to the wall, column, etc..

At up- and downstands the distance has to be considered during installation.

Aluminium profiles have to be cleaned, degreased and possibly primed.

1.4 General advice

When using materials supplied by third parties, e.g. epoxy mortar, sealing material for connection joint, etc. the respective installation instructions of the manufacturer must be followed.

This refers in particular to temperature during installation and moisture.

If you need assistance, please feel free to contact us.

2. Surface preparation

The concrete surface must be clean, dry, and free of all dirt and contaminants and must have the correct depth below the finished floor level.

The compressive strength of the reinforced concrete must be at least that of a C20/25.

Before installation, the profile must be cleaned of impurities, oil and grease using a residue-free cleaner/solvent. Broken edges must be reprofiled in advance with suitable repair mortar to ensure a full-surface support.

The width of the recess depends on the profile type used. Details can be found in the table below. The depth of the recess depends on the installation height and the evenness or straightness of the raw concrete. On average, you can expect the following value: profile height + 10 mm for the levelling layer.



Description:	width of blockout
FP(G) 80	290 mm
FP(G) 90	300 mm
FP(G) 110	320 mm
FP 130	340 mm
FP 155	360 mm
FPI 145	360 mm
FPL 85	300 mm

3. Laying of levelling layer

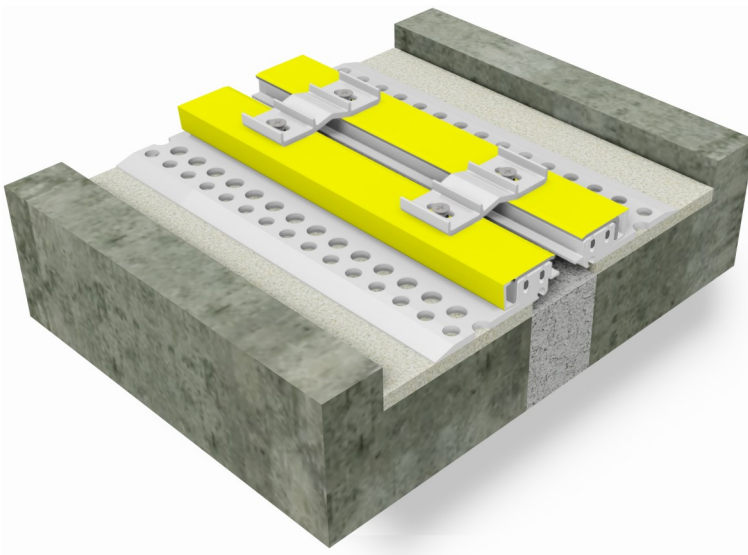
The raw concrete surface has to be primed (to ensure the necessary adhesive tensile strength) according to the processing guidelines of the material used. Lay a mortar bed of a pressure-resistant and shrinkage-free mortar in a watertight mixture (e.g. epoxy resin or PCC mortar) on both sides of the joint to compensate for unevenness of the raw concrete ceiling. Separate the mortar strips in the joint area with a joint separation plate made of mineral wool and align it so that no mortar runs into the joint.

The thickness of the levelling layer depends on the unevenness of the raw concrete ceiling and the distance to the upper edge of the finished floor. Coordinate the height of the finished floor with the construction management and level the mortar layer so that the top edge of the stainless steel cap corresponds to the top edge of the finished floor (including the coating).



4. Setting the profiles in the levelling layer

Place the profiles in the still wet mortar and level them to the correct height. Make sure that the layers under the fixing angles are free of cavities and fully lined. This is absolutely necessary, as cavities under the fixing angles lead to damage.



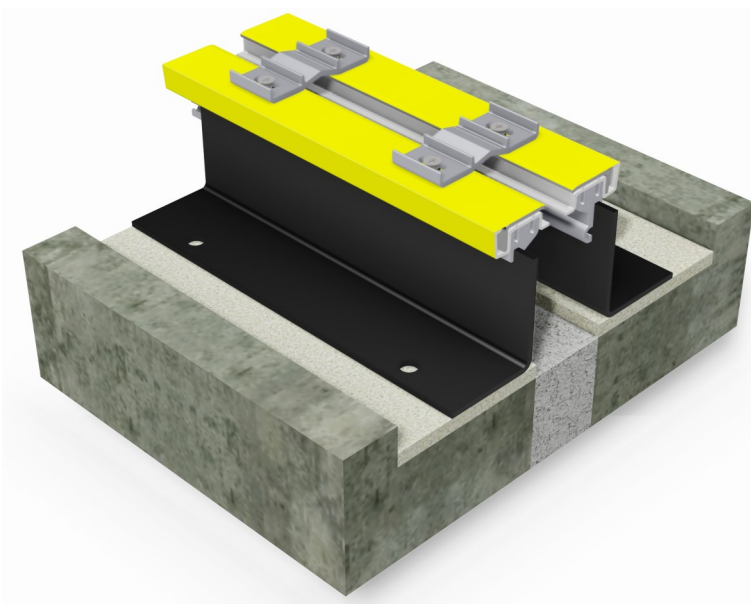
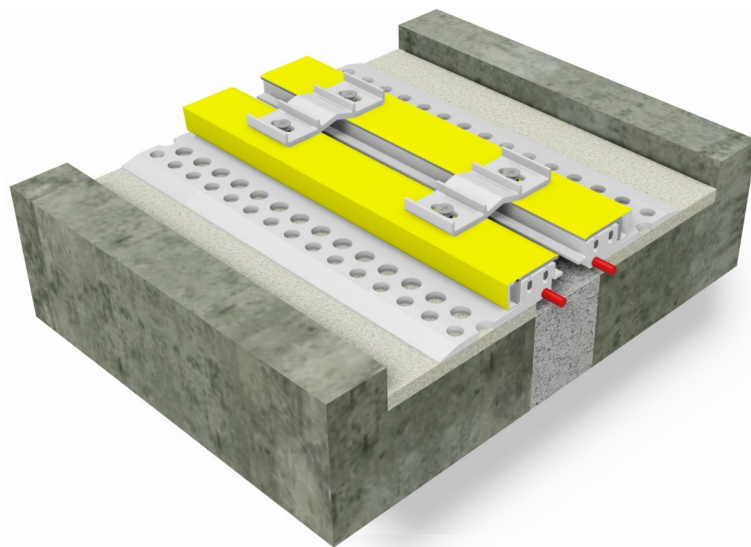
5. Connection of single lengths

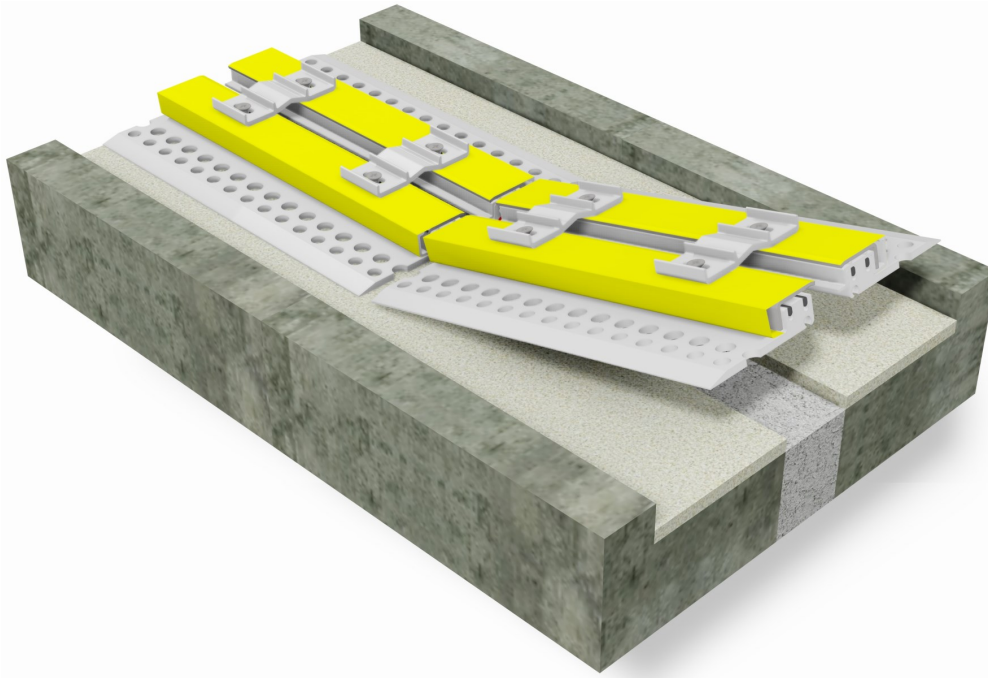
Place the following MIGUTAN profile into the still wet mortar bed, taking into account the consecutive numbering according to point 1.2, and make sure that the profiles are connected without gaps. Repeat this until you have reached the end of the system.

Note:

In the case of multi-part support profiles, namely heights FP.../80, 95, 115 and/or special angles, the height and alignment and flush installation is ensured by staggered joints.

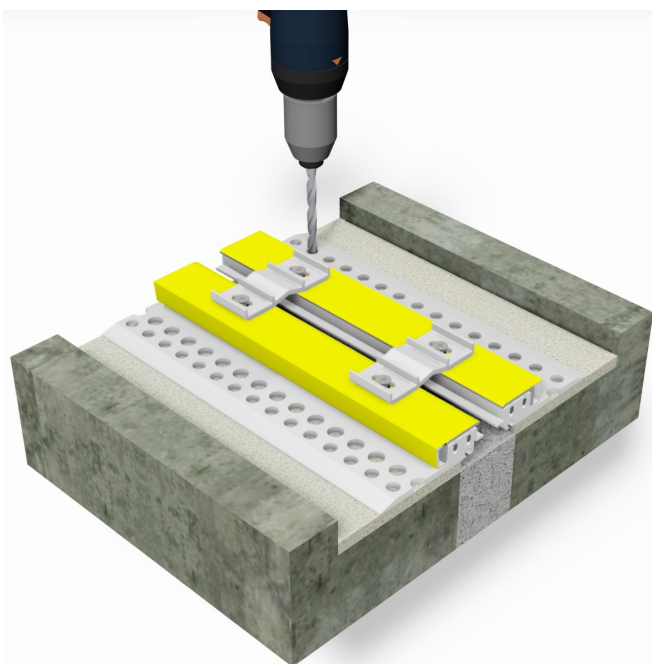
For one-piece support profiles, namely heights FP .../25, 35, 45 and 60 (S), the height- and alignment-correct installation is ensured by connecting pins.





6. Preparation of Fixing

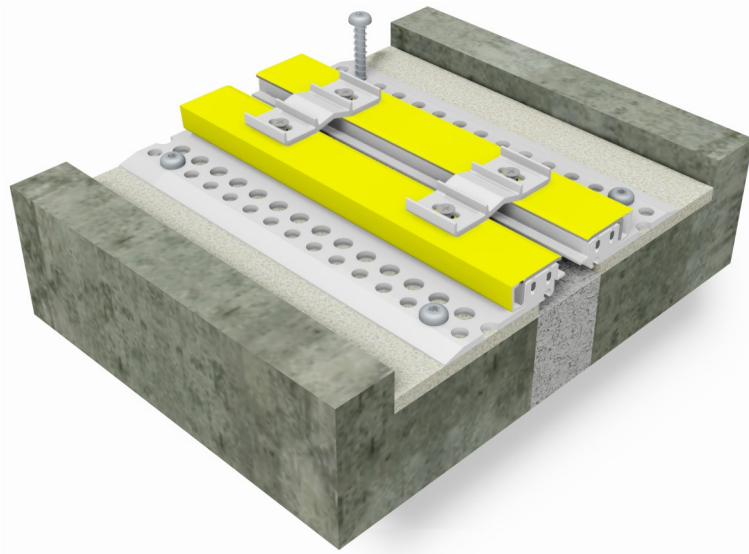
Immediately after the mortar has hardened, the fastening legs of the joint covers are to be anchored laterally from the movement joint in the raw concrete surface without any vibration. For this purpose, use the concrete screw Heco MMS-plus SS 10 X 90 vz. or another anchor from the standard anchoring list published on our website. The length of the anchor depends on the required clamping thickness (mortar layer + profile leg thickness). When using countersunk screws the holes in the profile legs must be countersunk accordingly. Anchoring is carried out at a distance of 350 mm. Ensure that the impact wrench is applied vertically. The instructions of the screw manufacturer must be observed. In particular, the clamping thicknesses and installation depths of the anchor manufacturers must be complied with.



Observe the installation guidelines of the screw manufacturer, especially with regard to drill diameter, drilling method and cleaning of the drill hole. In particular, the clamping thicknesses and installation depths of the anchor manufacturers must be observed. Ensure that the impact wrench is applied vertically.

7. Fixing

Fix the screws in accordance with the specifications of the screw manufacturer.

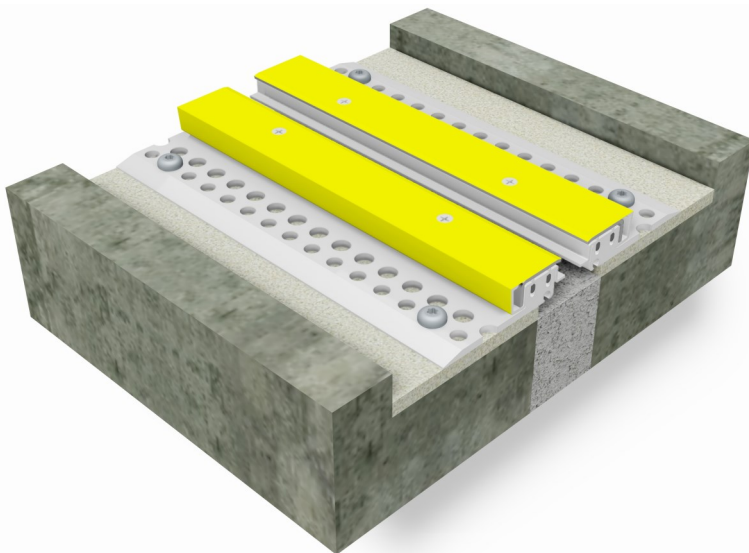


8. Cutting (or removing) of the spacer

You must now cut through the spacer between the two sides of the profile using an angle cutter with metal cut blade.

Alternatively, the spacer can be completely removed.

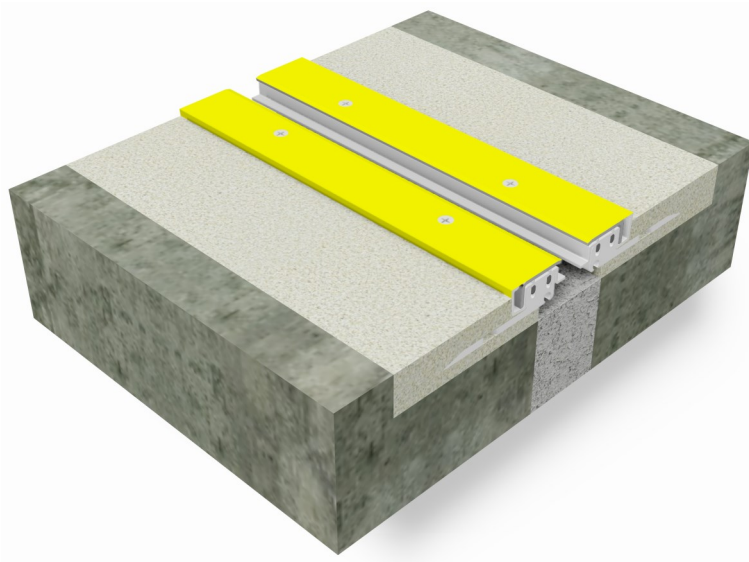
This is very important since joint movements can seriously damage the aluminium and the building construction.



Some support profiles have a recess/ bead that protects the screw head. After fixation of the system, fill this channel with a suitable material to obtain a flush level surface.

9. Filling of the blackout

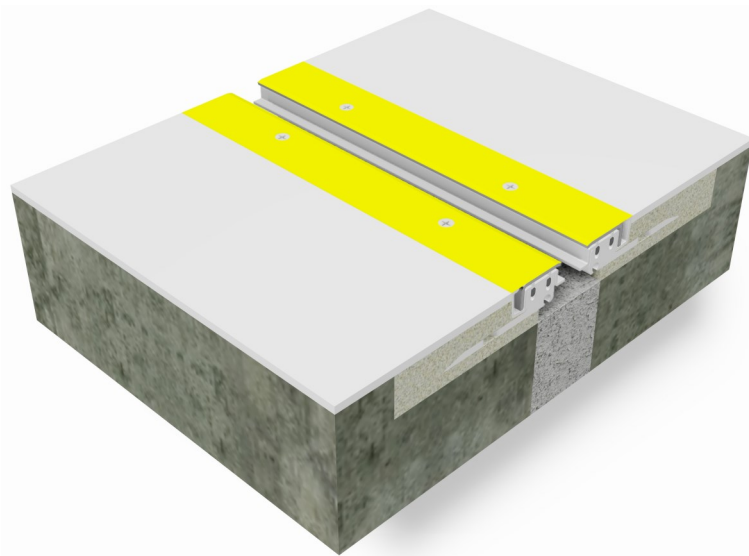
Please fill the blackout with a compression-resistant and low-shrink mortar in watertight mixture (e.g. Epoxy- or PCC-mortar) and level it at the height of the raw floor. It is essential that the top surface of the expansion joint cover (upper edge of stainless steel caps) stands out off the blackout by the thickness of the coating material.



10. Applying of the coating

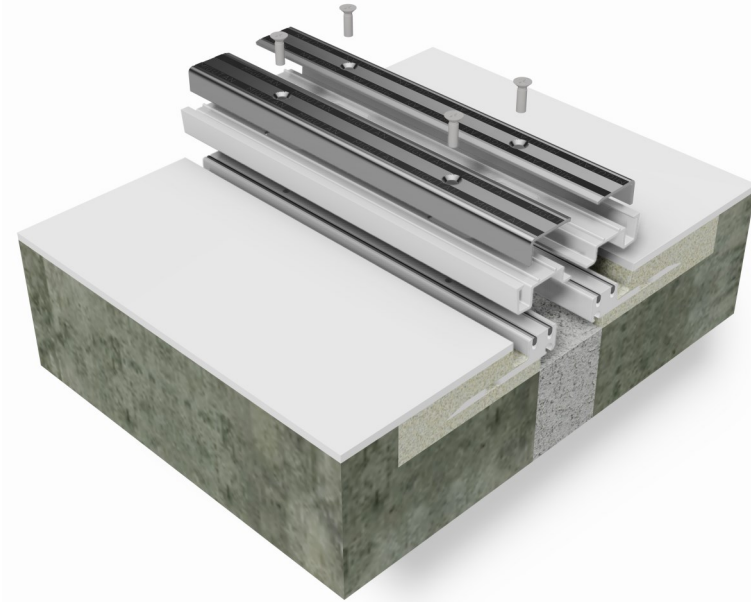
After the blackout material has hardened (following the manufacturer's instructions), the coating material can be applied.

Bring the upper edge of the coating flush with the upper connection joint recess profile AAP, which serves is used to create the recess for the connection joint. The coating must not overlap the AAP or even the stainless steel caps of the joint profile.

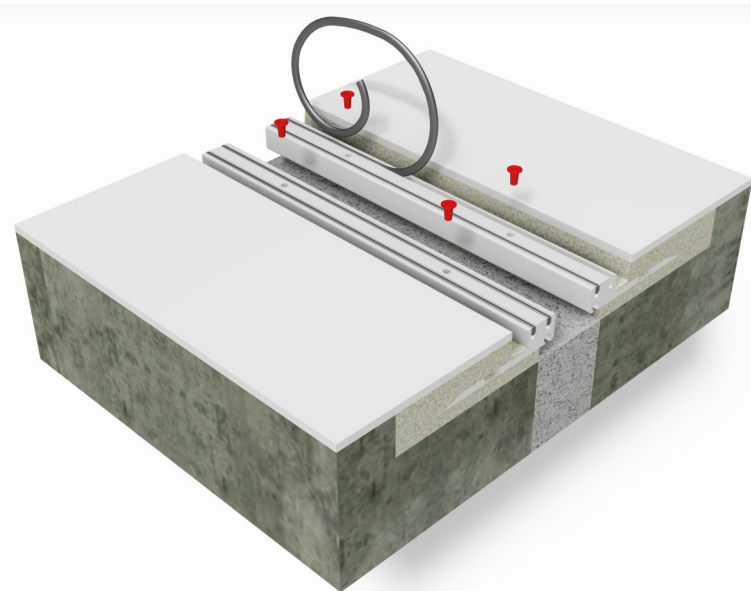


11 Removing of the connection joint filler profile AAP

Now remove the stainless steel caps. Mark the caps to make sure that you re-install them later in the same place, and not mix them up. Carefully cut the connection joint recess profile AAP free, remove it carefully and dispose of it. Make sure that the coating material will not be damaged.

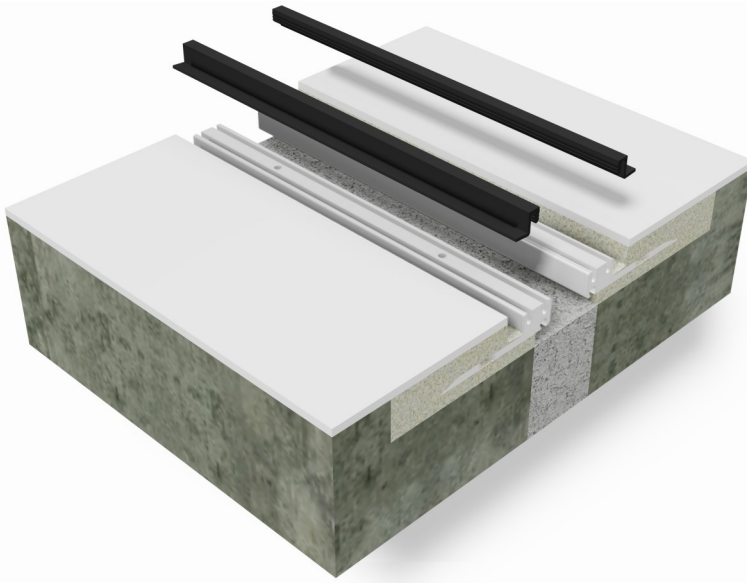
**12.1 Application of rubber parts**

Remove the rubber filler cords and the red plastic plugs.



12.2 Application of rubber parts

Roll out the short AAS sheets along the edges of the joint to enable the rubber to expand. The short AAS sheets need to be cleaned and degreased. Insert the rubber anchors of the short AAS sheets into the outer grooves. Important: Please always start at an intersection (= moulded part as cross piece, t-piece, or upstand etc.) The sheets have to be pressed in from above and you must not pull the sheets to avoid stretching.



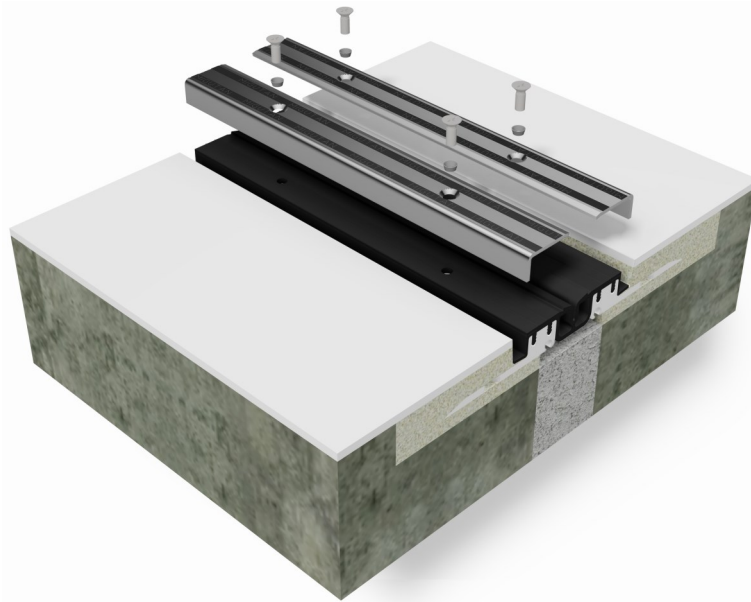
12.3 Application of rubber parts

Unroll the sealing insert and press its locking ribs into the inner grooves of the joint cover. If there are pre-punched holes make sure that the punched holes in the sealing insert align with the drilled holes in the aluminium profile.



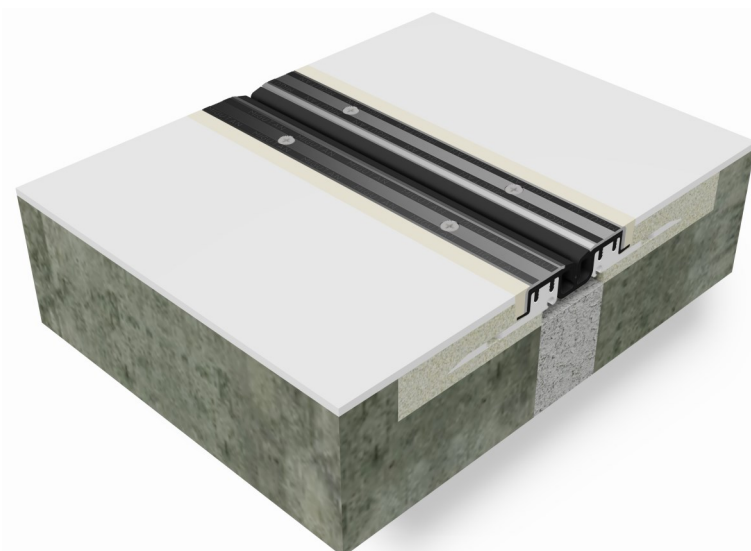
12.4 Application of rubber parts

Install the stainless steel cappings and secure them with the stainless steel screws supplied (screws M6x16 DIN 965, size 3, PH3 system). Place the Nylon sealing ring between screw head and stainless steel capping. In order to ensure sufficient pressure, the screws should be tightened using a torque wrench (7 Nm).



13 Filling of the connection joint

Finally, fill the connection joints with a suitable sealing material. It is important that you have a three-flank adhesion, to ensure a watertight connection of the short AAS foil to the surface protection system. Sikaflex-Pro 3 meets these requirements.



14 Retightening the screws

After approx. 10-14 days, the stainless steel screws of the cover caps must be retightened with a torque wrench (7 Nm).

Our verbal and written application recommendations, which we give to support the buyer or the processor based on our experience and to the best of our knowledge in accordance with the current state of knowledge in science and practice, are non-binding and do not constitute a contractual legal relationship or any ancillary obligations arising from the purchase contract. They do not release the purchaser from testing our products for their suitability for the intended use on his own responsibility and from observing the property rights of third parties. In all other respects, our general terms and conditions of business shall apply. We reserve the right to make technical changes.