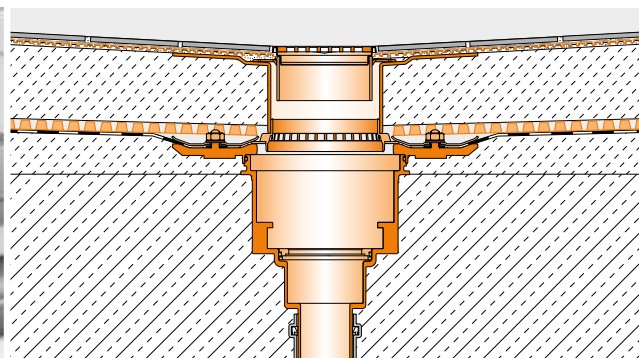
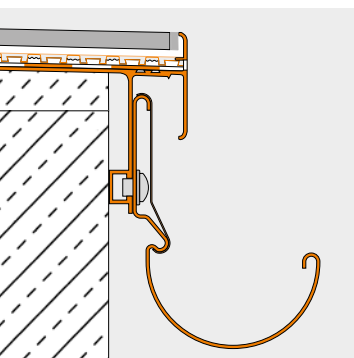


A



Cantilevered Balconies

Structural assemblies



PROFILE OF INNOVATION



Practical solutions from an expert source

Schlüter-Systems has been a brand name for intelligent structural assemblies on balconies and terraces since 1983. That year, Werner Schlüter invented the Schlüter-TROBA mat, the first drainage mat for the area drainage of balconies and terraces.

Since then Schlüter-Systems has developed a complete product range of integrated components for any structural assembly. Schlüter-Systems offers designers and contractors everything for the complete assembly of balconies, ground level terraces and roof terraces from a single source, ranging from area drainage to bonded waterproofing assemblies, uncoupling, edge profiles and gutters.

As numerous building projects have documented, balconies and terraces constructed properly with Schlüter-Systems products are permanently free of damage, even under extreme weather conditions.



The installation recommendations and construction drawings of this brochure were developed on the basis of the relevant DIN requirements, guidelines and technical information sheets and in accordance with the practical and theoretical knowledge of the authors. The product datasheets of the Schlüter products must be observed. However, designers and contractors are solely responsible for the proper application of the products in individual cases.

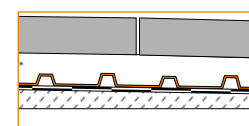
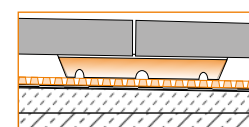
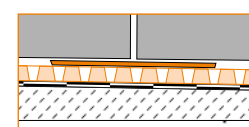
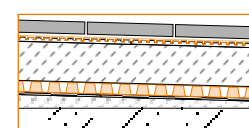
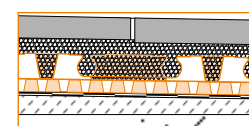
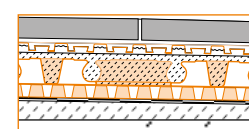
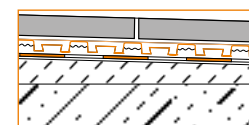
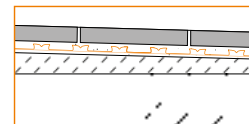
The ZDB information sheet “Tiled assemblies in outside areas” states: “Natural stone and concrete pavers may vary in colour due to differences in the drying process.” This occurrence cannot be completely ruled out for the structural assemblies described in this booklet. We recommend pointing this out to the homeowner or developer when selecting the covering materials.

Information regarding the arrangement of joints and slopes as well as other construction details represents recommendations of Schlüter-Systems KG and must be adapted to local requirements as applicable.



Content

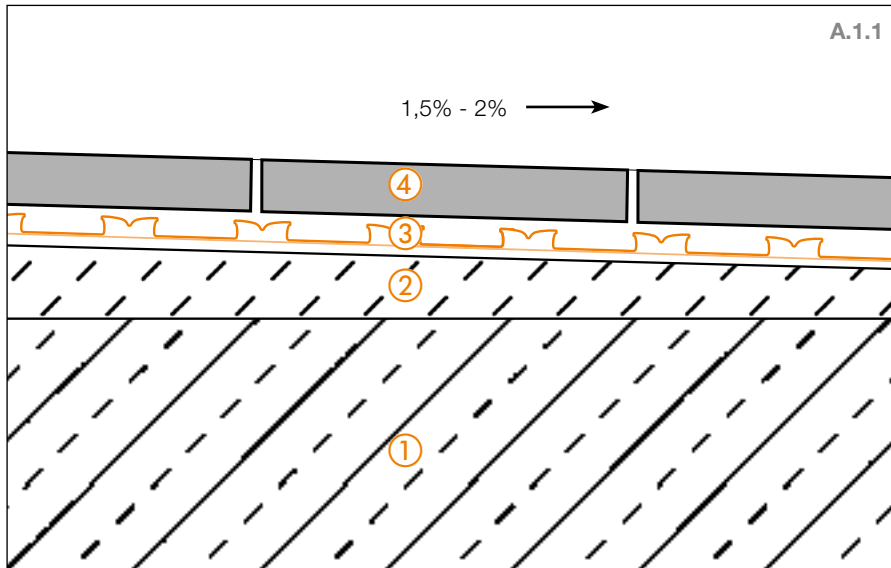
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A.1 Structural assemblies with bonded waterproofing

Schlüter®-DITRA for bonded waterproofing, uncoupling and vapour pressure equalisation



① **Cantilevered concrete slab.**

② **Sloped screed**

The construction has to be sufficiently sloped (1.5 - 2%) to allow for proper drainage.

③ **Schlüter®-DITRA**

Special polyethylene mat, installed using the thin bed method which provides waterproofing, bonded uncoupling and vapour pressure equalisation. The joints are covered with the sealing band Schlüter-KERDI-KEBA, using the sealing adhesive Schlüter-KERDI-COLL-L.

④ **Ceramic tiles or natural stone pavers**

Installed with a waterproof and weather resistant tile adhesive. We recommend Schlüter-DITRA-DRAIN for coverings with dimensions 30 x 30 cm or larger (see balcony assembly A.2, from page 7).

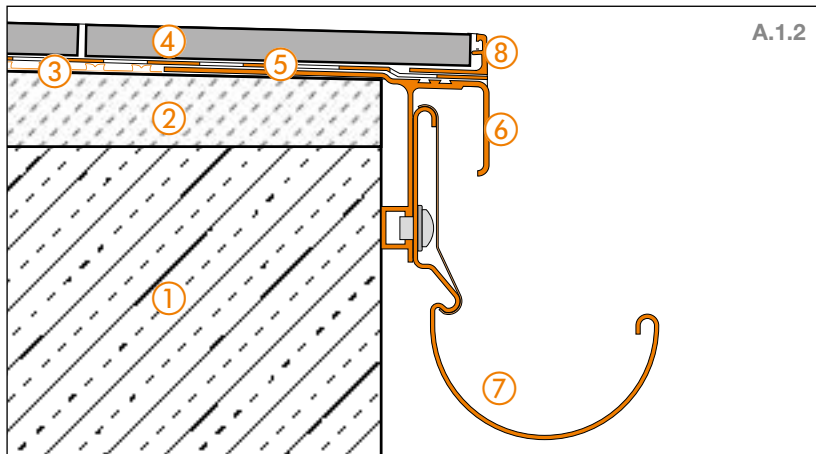
Schlüter-DITRA is a waterproofing mat for use with floor coverings made of tiles and pavers. In addition to waterproofing, DITRA offers a bonded uncoupling function that neutralises the stresses occurring between the substrate and the tile covering due to temperature fluctuations. Due to the vapour pressure equalisation function of DITRA, the

residual moisture of the substrate (e.g. in green screeds) is safely managed.

Note: Abutting joints and connections to walls and construction fixtures should be covered with the sealing band Schlüter-KERDI-KEBA. The sealing adhesive Schlüter-KERDI-COLL-L should be used for waterproofing the joints.



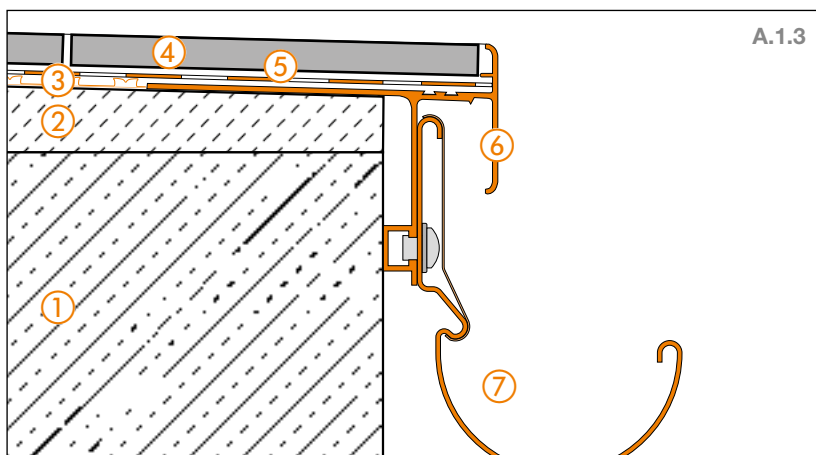
Edge detail 1



A.1.2

- ① Cantilevered concrete slab.
- ② Sloped screed (1.5% -2%).
- ③ Schlüter®-DITRA.
- ④ Ceramic tiles or natural stone pavers.
- ⑤ Schlüter®-KERDI-KEBA.
- ⑥ Schlüter®-BARA-RTK.
- ⑦ Schlüter®-BARIN.
- ⑧ Schlüter®-JOLLY.

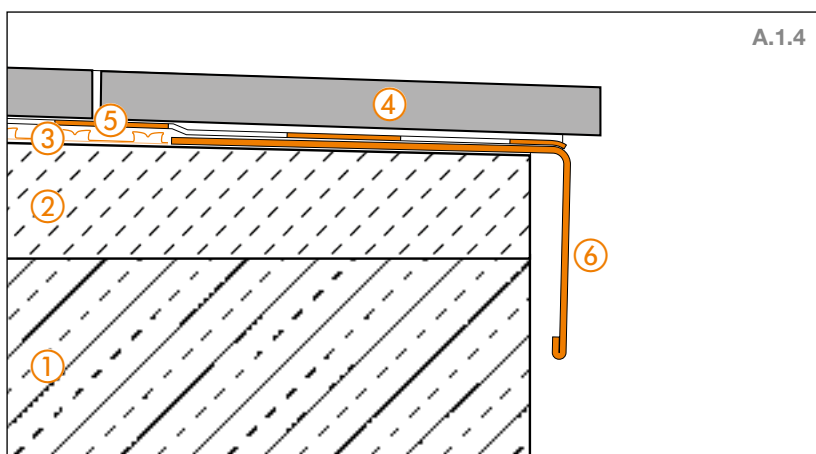
Edge detail 2



A.1.3

- ① Cantilevered concrete slab.
- ② Sloped screed (1.5% -2%).
- ③ Schlüter®-DITRA.
- ④ Ceramic tiles or natural stone pavers.
- ⑤ Schlüter®-KERDI-KEBA.
- ⑥ Schlüter®-BARA-RTKEG.
- ⑦ Schlüter®-BARIN.

Edge detail 3

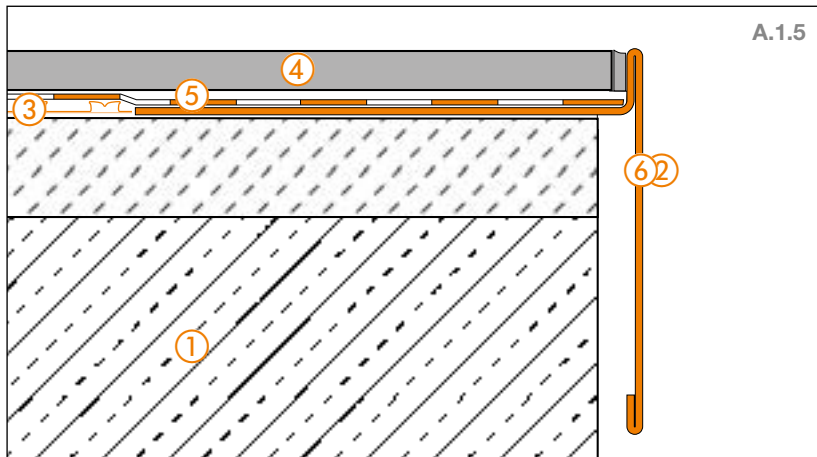


A.1.4

- ① Cantilevered concrete slab.
- ② Sloped screed (1.5% -2%).
- ③ Schlüter®-DITRA.
- ④ Ceramic tiles or natural stone pavers.
- ⑤ Schlüter®-KERDI-KEBA.
- ⑥ Schlüter®-BARA-RW.

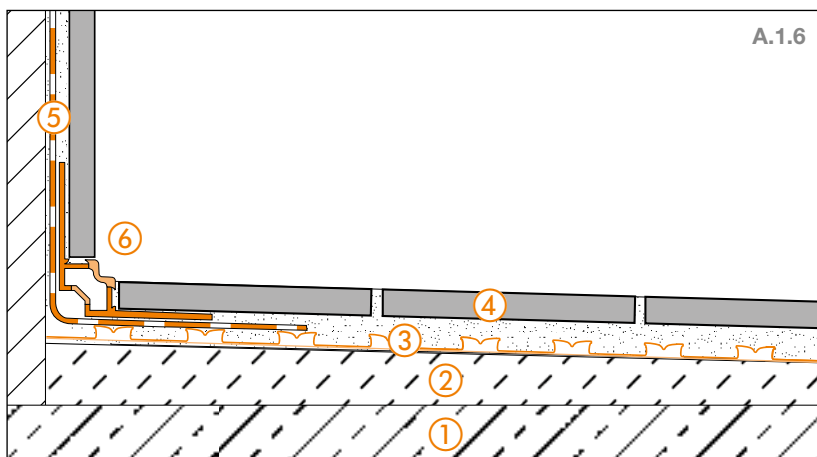


Edge detail 4



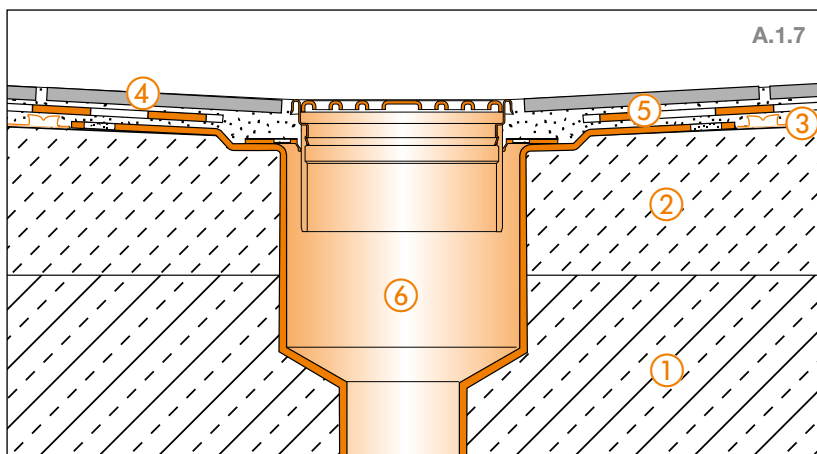
- ① Cantilevered concrete slab.
- ② Sloped screed (1.5% -2%).
- ③ Schlüter®-DITRA.
- ④ Ceramic tiles or natural stone pavers.
- ⑤ Schlüter®-KERDI-KEBA.
- ⑥ Schlüter®-BARA-RT.

Floor to wall transition



- ① Cantilevered concrete slab.
- ② Sloped screed (1.5% -2%).
- ③ Schlüter®-DITRA.
- ④ Ceramic tiles or natural stone pavers.
- ⑤ Schlüter®-KERDI-KEBA.
- ⑥ Schlüter®-DILEX-EF or Schlüter®-DILEX-EKE.

Floor drain

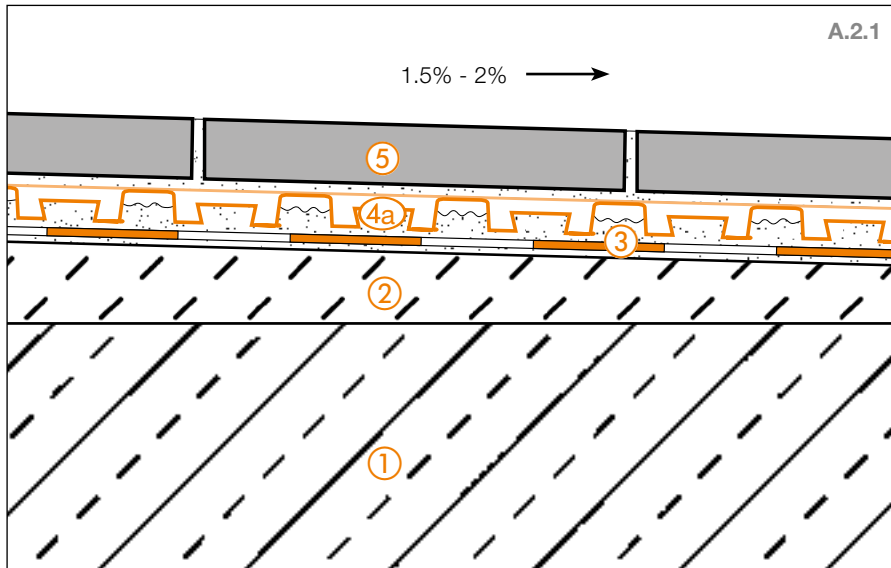


- ① Cantilevered concrete slab.
- ② Sloped screed (1.5% -2%).
- ③ Schlüter®-DITRA.
- ④ Ceramic tiles or natural stone pavers.
- ⑤ Schlüter®-KERDI.
- ⑥ Schlüter®-KERDI-DRAIN
Thin bed floor drain.



A.2 Structural assemblies with bonded drainage over bonded waterproofing assemblies

Schlüter®-DITRA-DRAIN as a bonded drainage and bonded uncoupling membrane over a Schlüter®-KERDI bonded waterproofing assembly



The sloped support structure is protected against the permeation of water with a Schlüter-KERDI bonded waterproofing assembly, which is produced with a dry set tile adhesive in the thin bed method. The passive capillary bonded drainage membrane Schlüter-DITRA-DRAIN is installed in the thin bed adhesive between the water-

proofing layer and the tile covering. This results in the broad ventilation of the top covering, which in turn promotes the quick and even drying/curing of the thin bed tile adhesive. The uncoupling function of DITRA-DRAIN neutralises any stresses occurring in the substrate.



① Cantilevered concrete slab.

② Sloped screed

The construction has to be sufficiently sloped (1.5% - 2%) to allow for proper drainage. Please contact us if you have alternative substrate assemblies.

③ Schlüter®-KERDI

Polyethylene waterproofing membrane installed in thin bed tile adhesive. Joints are sealed with the sealing adhesive Schlüter-KERDI-COLL-L. Proprietary waterproofing systems can be used, please contact us for advice.

④a Schlüter®-DITRA-DRAIN 4

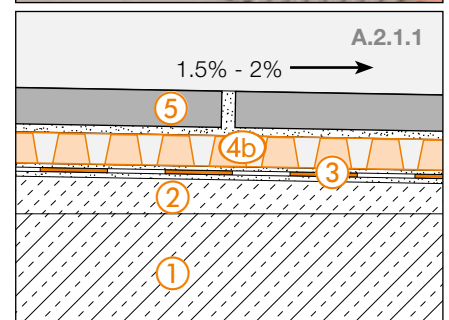
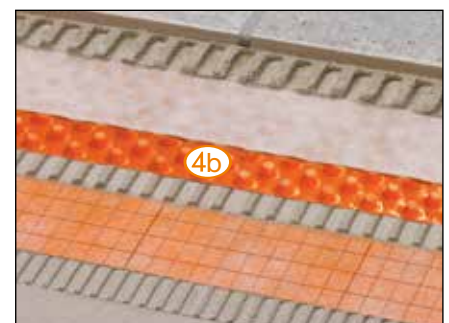
Polyethylene drainage mat installed using the thin bed method, for bonded drainage, ventilation and uncoupling.

④b Schlüter®-DITRA-DRAIN 8

Special bonded drainage membrane for large areas.

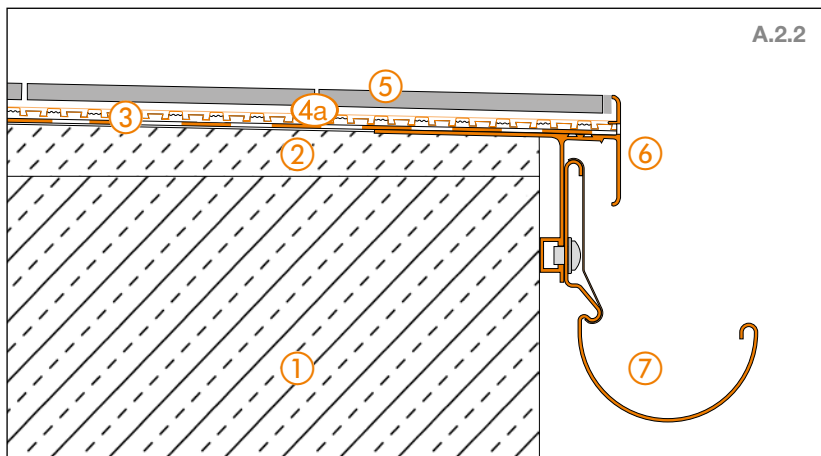
⑤ Ceramic/stone tiles or natural stone pavers

Installed (including large format) with a waterproof and weather resistant tile adhesive.



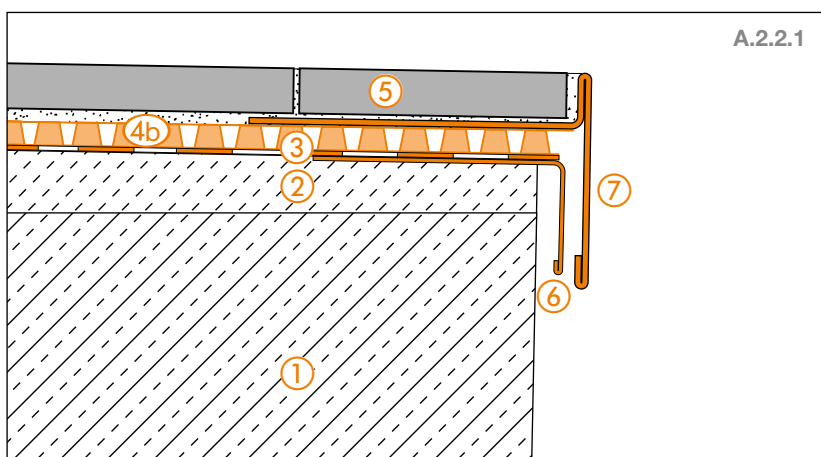


Edge detail 1



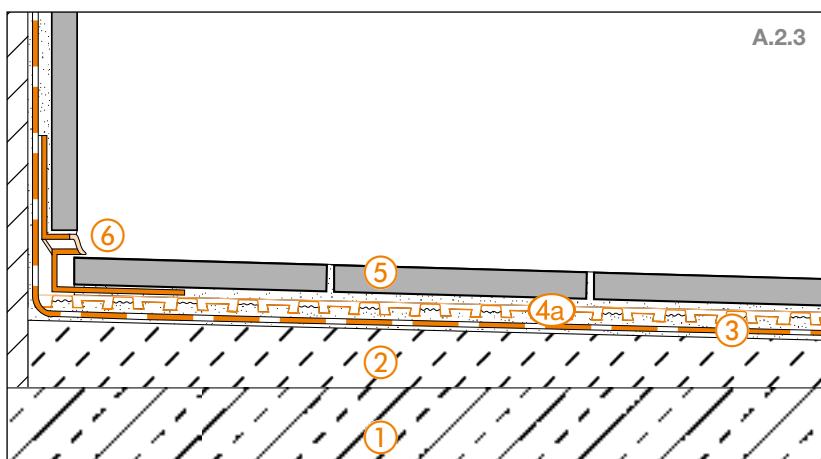
- ① Cantilevered concrete slab.
- ② Sloped screed (1.5% -2%).
- ③ Schlüter®-KERDI.
- ④a Schlüter®-DITRA-DRAIN 4.
- ④b Schlüter®-DITRA-DRAIN 8.
- ⑤ Ceramic tiles or natural stone pavers.
- ⑥ Schlüter®-BARA-RTKE.
Keep drainage openings unobstructed!
- ⑦ Schlüter®-BARIN.

Edge detail 2



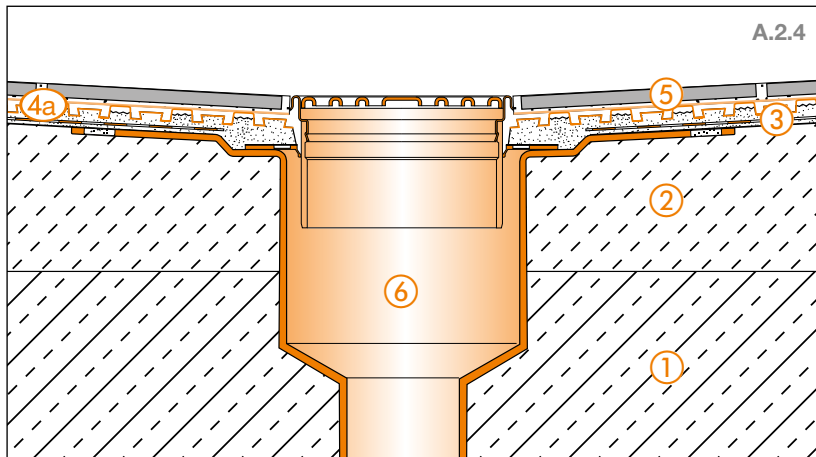
- ① Cantilevered concrete slab.
- ② Sloped screed (1.5% -2%).
- ③ Schlüter®-KERDI.
- ④a Schlüter®-DITRA-DRAIN 4.
- ④b Schlüter®-DITRA-DRAIN 8.
- ⑤ Ceramic tiles or natural stone pavers.
- ⑥ Schlüter®-BARA-RW.
- ⑦ Schlüter®-BARA-RT.
It is important to ensure a drainage channel!

Floor to wall transition



- ① Cantilevered concrete slab.
- ② Sloped screed (1.5% -2%).
- ③ Schlüter®-KERDI.
- ④a Schlüter®-DITRA-DRAIN 4.
- ④b Schlüter®-DITRA-DRAIN 8.
- ⑤ Ceramic tiles or natural stone pavers.
- ⑥ Schlüter®-DILEX-EKE.

Floor drain



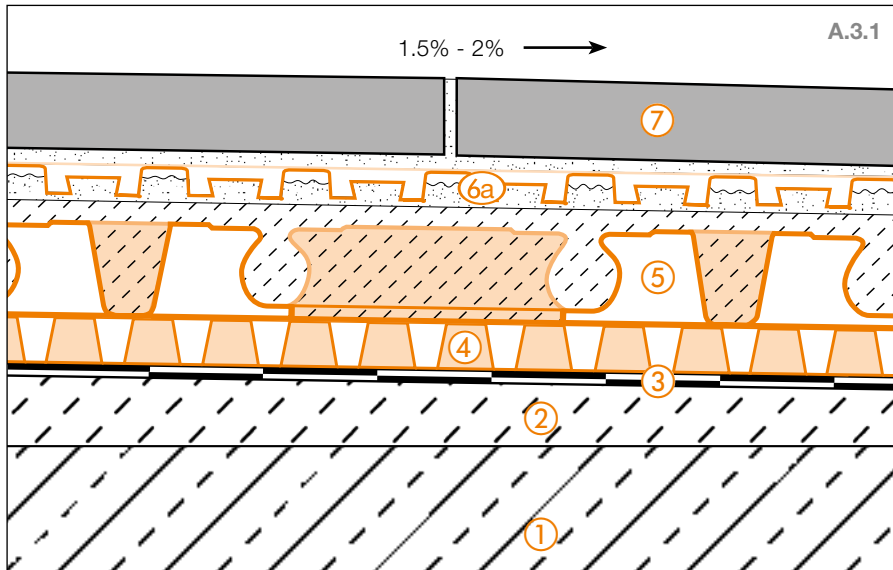
- ① Cantilevered concrete slab.
- ② Sloped screed (1.5% -2%).
- ③ Schlüter®-KERDI.
- ④a Schlüter®-DITRA-DRAIN 4.
- ④b Schlüter®-DITRA-DRAIN 8.
- ⑤ Ceramic tiles or natural stone pavers.
- ⑥ Schlüter®-KERDI-DRAIN
Thin bed floor drain.





A.3 Thin covering assemblies over waterproofing layers

Schlüter®-DITRA-DRAIN as a bonded drainage and uncoupling membrane over Schlüter®-BEKOTEC-DRAIN screed on the Schlüter®-TROBA-PLUS drainage mat



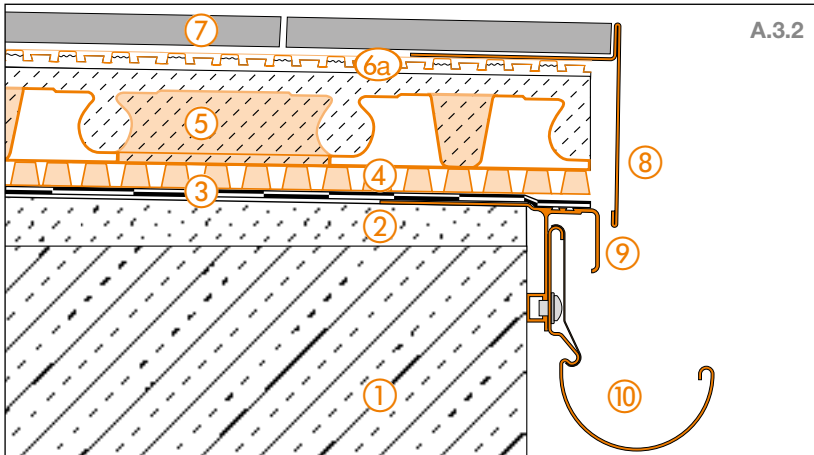
The sloped support structure is protected against permeating water with a waterproofing assembly that meets the requirements of DIN 18531. Schlüter-TROBA-PLUS is installed as a drainage membrane between the waterproofing layer and the load distribution layer (screed) to drain away seepage. This load distribution layer is installed as a thin layer, using the damage free and

non buckling Schlüter-BEKOTEC-DRAIN system. The passive capillary bonded drainage and bonded uncoupling membrane Schlüter-DITRA-DRAIN is installed in the thin-bed tile adhesive between the screed and the tile covering. This results in the broad ventilation of the top covering, which in turn promotes the quick and even drying/curing of the thin bed tile adhesive.

- ① **Cantilevered concrete slab.**
- ② **Sloped screed**
The construction has to be sufficiently sloped (1.5% - 2%) to allow for proper drainage. Please contact us if you have alternative substrate assemblies.
- ③ **Waterproofing assembly according to DIN 18531.**
- ④ **Schlüter-TROBA-PLUS**
Passive capillary membrane for the effective drainage of seepage and ventilation.
- ⑤ **Schlüter-BEKOTEC-DRAIN**
Thin load distribution layer as a system for damage free and functionally safe floating screeds (cement screed CT-C25-F4 or pervious mortar).
- ⑥a **Schlüter-DITRA-DRAIN 4**
Polyethylene drainage mat installed in the thin bed method, for drainage, ventilation and uncoupling.
- ⑥b **Schlüter-DITRA-DRAIN 8**
Special bonded drainage membrane for large areas.
- ⑦ **Ceramic tiles or natural stone pavers**
Installed (including large format) with a waterproof and weather resistant tile adhesive.

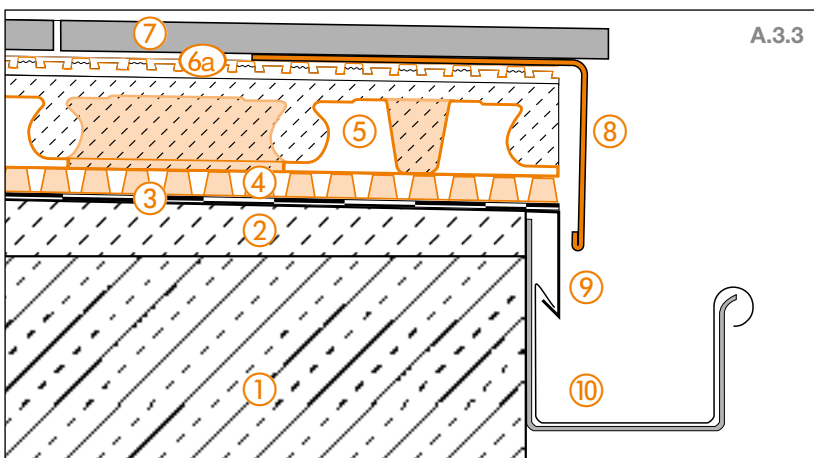


Edge detail 1



- ① Cantilevered concrete slab.
- ② Sloped screed (1.5% -2%).
- ③ Waterproofing assembly according to DIN 18531.
- ④ Schlüter®-TROBA-PLUS.
- ⑤ Schlüter®-BEKOTEC-DRAIN.
- ⑥a Schlüter®-DITRA-DRAIN 4.
- ⑥b Schlüter®-DITRA-DRAIN 8.
- ⑦ Ceramic tiles or natural stone pavers.
- ⑧ Schlüter®-BARA-RT.
It is important to ensure a drainage channel!
- ⑨ Schlüter®-BARA-RTK.
- ⑩ Schlüter®-BARIN.

Edge detail 2

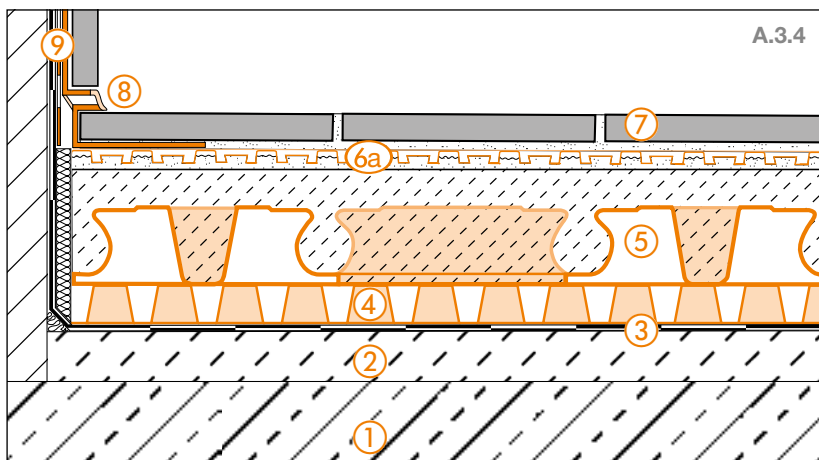


- ① Cantilevered concrete slab.
- ② Sloped screed (1.5% -2%).
- ③ Waterproofing assembly according to DIN 18531.
- ④ Schlüter®-TROBA-PLUS.
- ⑤ Schlüter®-BEKOTEC-DRAIN.
- ⑥a Schlüter®-DITRA-DRAIN 4.
- ⑥b Schlüter®-DITRA-DRAIN 8.
- ⑦ Ceramic tiles or natural stone pavers.
- ⑧ Schlüter®-BARA-RW.
It is important to ensure a drainage channel!
- ⑨ Eave flashing.
- ⑩ Gutter system.



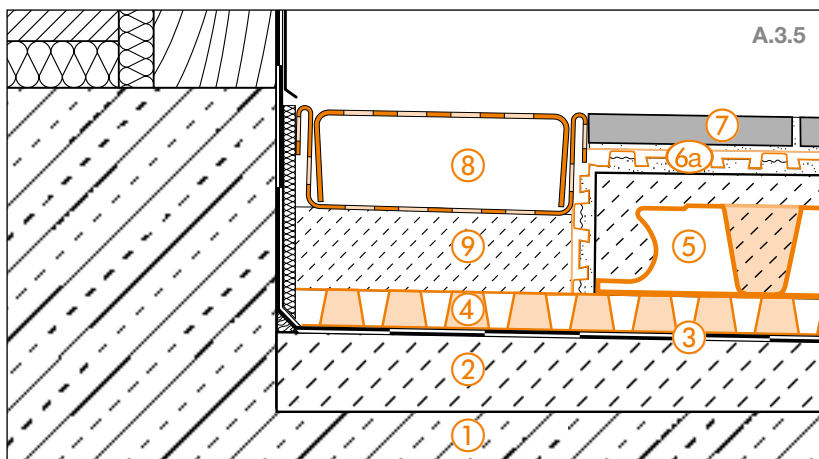


Floor to wall transition



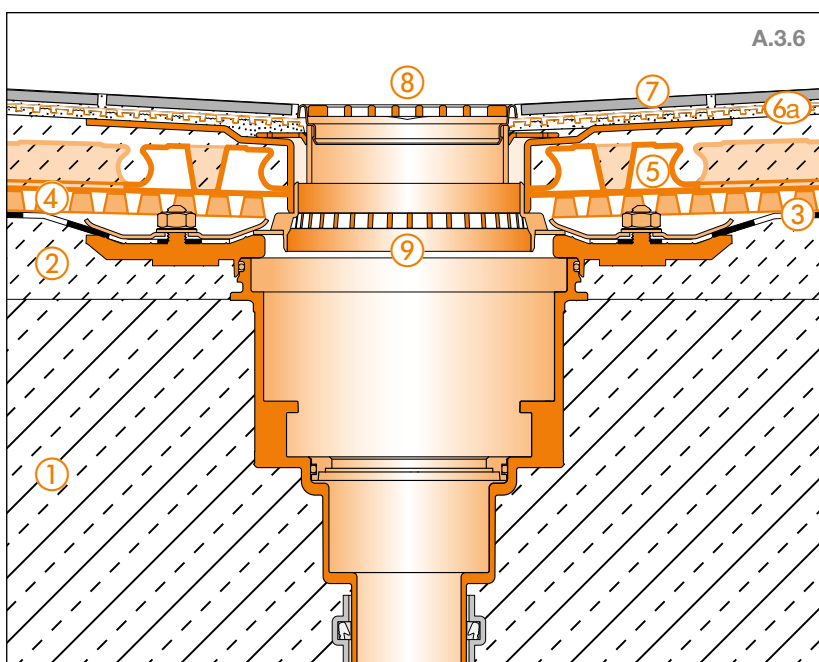
- ① Cantilevered concrete slab.
- ② Sloped screed (1.5% -2%).
- ③ Waterproofing assembly according to DIN 18531.
- ④ Schlüter®-TROBA-PLUS.
- ⑤ Schlüter®-BEKOTEC-DRAIN.
- ⑥a Schlüter®-DITRA-DRAIN 4.
- ⑥b Schlüter®-DITRA-DRAIN 8.
- ⑦ Ceramic tiles or natural stone pavers.
- ⑧ Schlüter®-DILEX-EKE or Schlüter®-DILEX-EF.
- ⑨ Schlüter®-KERDI.

Door transition



- ① Cantilevered concrete slab.
- ② Sloped screed (1.5% -2%).
- ③ Waterproofing assembly according to DIN 18531.
- ④ Schlüter®-TROBA-PLUS.
- ⑤ Schlüter®-BEKOTEC-DRAIN.
- ⑥a Schlüter®-DITRA-DRAIN 4.
- ⑥b Schlüter®-DITRA-DRAIN 8.
- ⑦ Ceramic tiles or natural stone pavers.
- ⑧ Schlüter®-TROBA-LINE-TL
Keep drainage openings unobstructed!
- ⑨ Mortar spot bedding.

Floor drain



- ① Cantilevered concrete slab.
- ② Sloped screed (1.5% -2%).
- ③ Waterproofing assembly according to DIN 18531.
- ④ Schlüter®-TROBA-PLUS.
- ⑤ Schlüter®-BEKOTEC-DRAIN.
- ⑥a Schlüter®-DITRA-DRAIN 4.
- ⑥b Schlüter®-DITRA-DRAIN 8.
- ⑦ Ceramic tiles or natural stone pavers.
- ⑧ Schlüter®-KERDI-DRAIN.
Grate/frame set KD R10.
Keep drainage openings unobstructed!
- ⑨ Schlüter®-KERDI-DRAIN.
Floor drain set KD BV 50 MSBB.

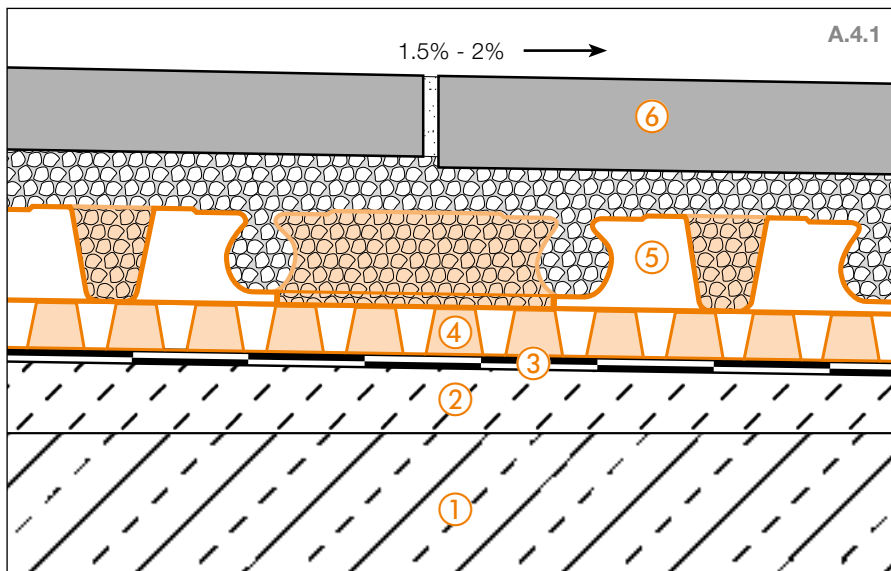
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For more information on thresholds please see pages 29 and 30.



A.4 Thin covering assemblies over waterproofing layers in mortar beds

Schlüter®-BEKOTEC-DRAIN and mortar bed installation on area drainage with Schlüter®-TROBA-PLUS 8G



① **Cantilevered concrete slab.**

② **Sloped screed**

The construction has to be sufficiently sloped (1.5% - 2%) to allow for proper drainage. Please contact us if you have alternative substrate assemblies.

③ **Waterproofing assembly according to DIN 18531.**

④ **Schlüter®-TROBA-PLUS 8G**

Passive capillary area drainage for the effective drainage of seepage and ventilation. It is important to ensure a drainage channel.

⑤ **Schlüter®-BEKOTEC-DRAIN**

Thin mortar layer, installed as a system for damage free and functionally secure tile and natural stone coverings, directly applied in the fresh mortar bed with a contact layer of cement mortar or pervious mortar, with high water permeability.

⑥ **Ceramic tiles or natural stone pavers**

Direct installation in the fresh screed layer.

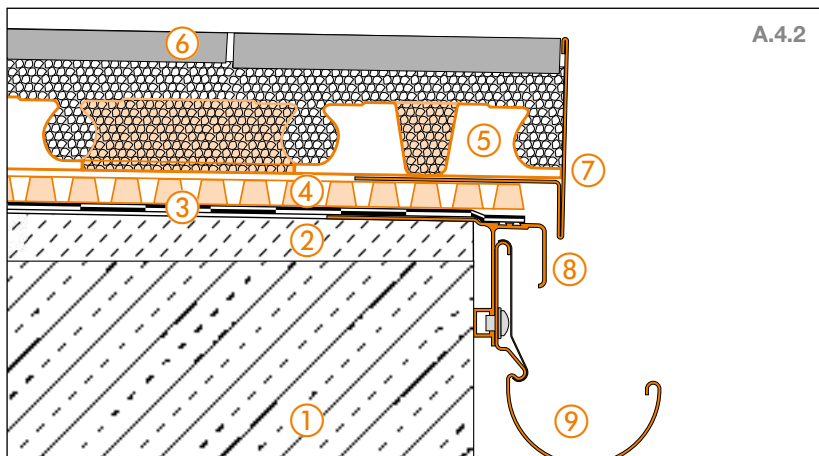
The sloped support structure is protected against permeating water with a waterproofing assembly that meets the requirements of DIN 18531. Schlüter-TROBA-PLUS 8G is installed as a drainage membrane between the waterproofing layer and the load distribution layer (screed) to drain away seep-

age. This load distribution layer of sand and cement screed or pervious mortar is installed as a thin layer, using the Schlüter-BEKOTEC-DRAIN system. The natural stone pavers are embedded in the fresh mortar.



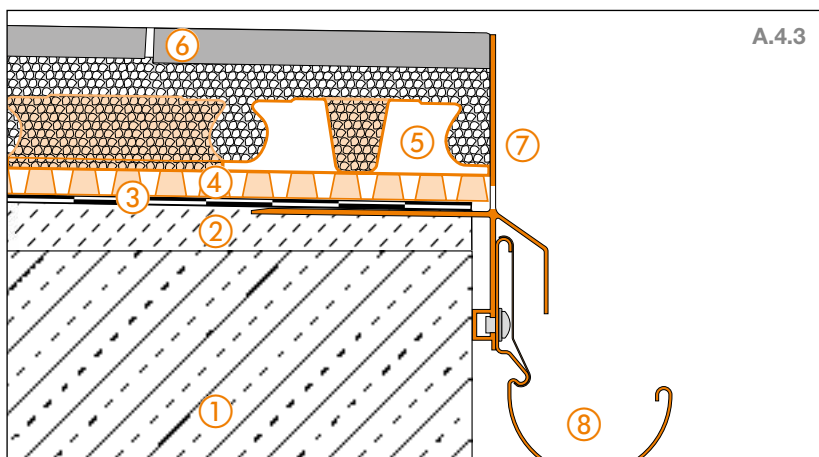


Edge detail 1



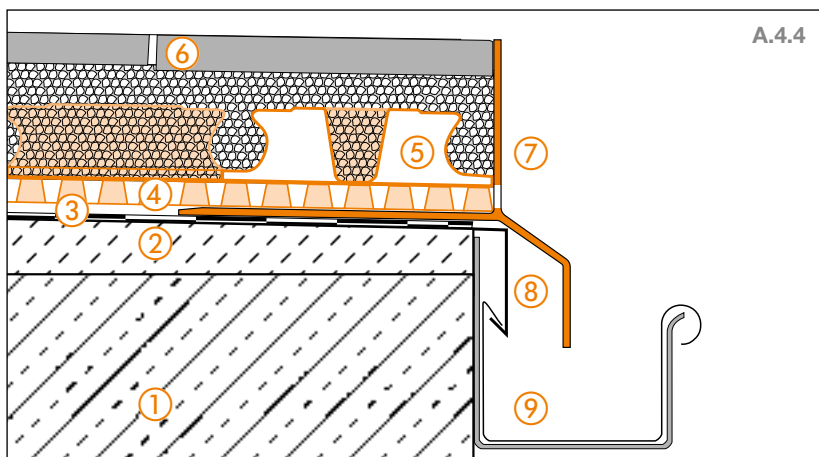
- ① Cantilevered concrete slab.
- ② Sloped screed (1.5% -2%).
- ③ Waterproofing assembly according to DIN 18531.
- ④ Schlüter®-TROBA-PLUS 8G.
- ⑤ Schlüter®-BEKOTEC-DRAIN.
- ⑥ Ceramic tiles or natural stone pavers.
- ⑦ Schlüter®-BARA-RT.
It is important to ensure a drainage channel!
- ⑧ Schlüter®-BARA-RTK.
- ⑨ Schlüter®-BARIN.

Edge detail 2



- ① Cantilevered concrete slab.
- ② Sloped screed (1.5% -2%).
- ③ Waterproofing assembly according to DIN 18531.
- ④ Schlüter®-TROBA-PLUS 8G.
- ⑤ Schlüter®-BEKOTEC-DRAIN.
- ⑥ Ceramic tiles or natural stone pavers.
- ⑦ Schlüter®-BARA-RKLT.
Keep drainage openings unobstructed!
- ⑧ Schlüter®-BARIN.

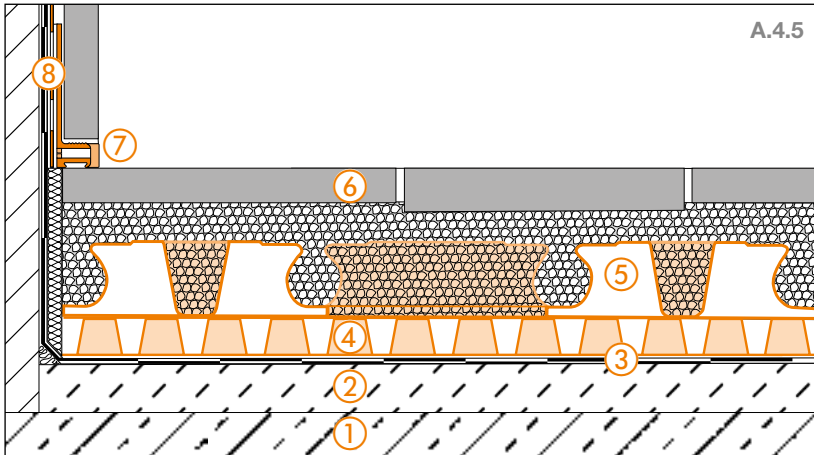
Edge detail 3



- ① Cantilevered concrete slab.
- ② Sloped screed (1.5% -2%).
- ③ Waterproofing assembly according to DIN 18531.
- ④ Schlüter®-TROBA-PLUS 8G.
- ⑤ Schlüter®-BEKOTEC-DRAIN.
- ⑥ Ceramic tiles or natural stone pavers.
- ⑦ Schlüter®-BARA-RKL.
Keep drainage openings unobstructed!
- ⑧ Eave flashing.
- ⑨ Gutter system.

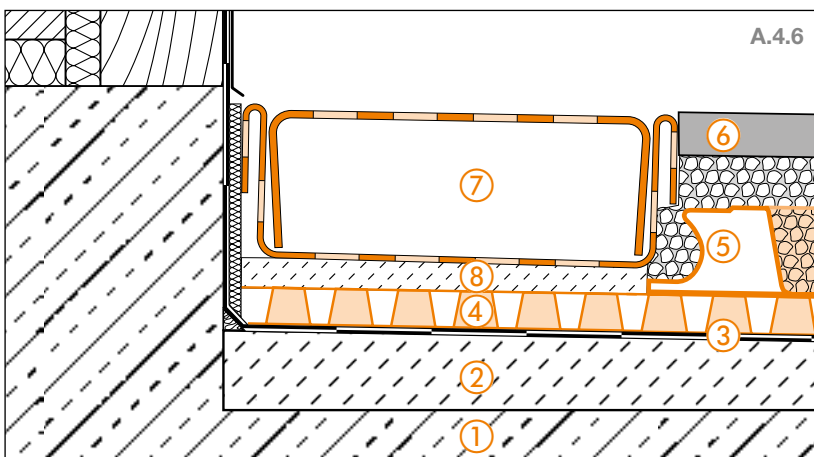


Floor to wall transition



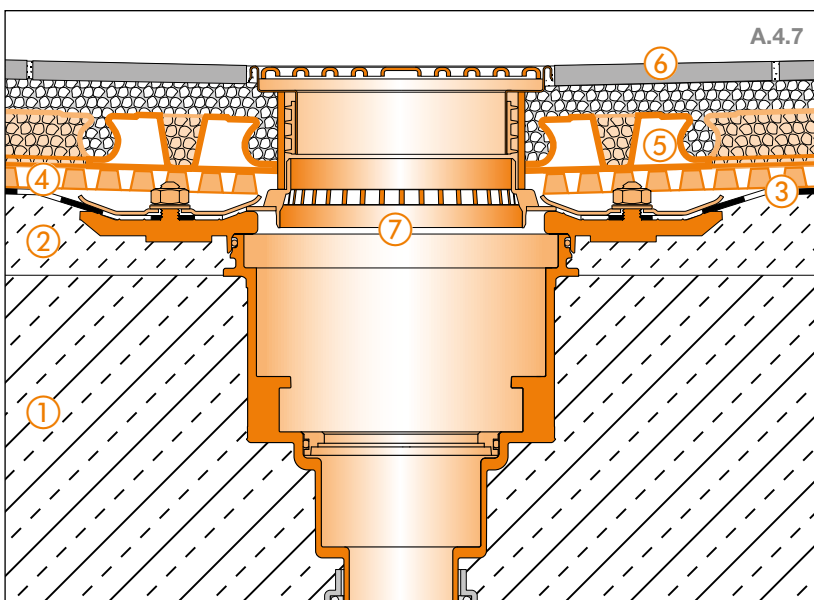
- ① Cantilevered concrete slab.
- ② Sloped screed (1.5% -2%).
- ③ Waterproofing assembly according to DIN 18531.
- ④ Schlüter®-TROBA-PLUS 8G.
- ⑤ Schlüter®-BEKOTEC-DRAIN.
- ⑥ Ceramic tiles or natural stone pavers.
- ⑦ Schlüter®-DILEX-BWA.
- ⑧ Schlüter®-KERDI-KEBA.

Door transition



- ① Cantilevered concrete slab.
- ② Sloped screed (1.5% -2%).
- ③ Waterproofing assembly according to DIN 18531.
- ④ Schlüter®-TROBA-PLUS 8G.
- ⑤ Schlüter®-BEKOTEC-DRAIN.
- ⑥ Ceramic tiles or natural stone pavers.
- ⑦ Schlüter®-TROBA-LINE-TL.
Keep drainage openings unobstructed!
- ⑧ Mortar spot bedding.

Floor drain



- ① Cantilevered concrete slab.
- ② Sloped screed (1.5% -2%).
- ③ Waterproofing assembly according to DIN 18531.
- ④ Schlüter®-TROBA-PLUS 8G.
- ⑤ Schlüter®-BEKOTEC-DRAIN.
- ⑥ Ceramic tiles or natural stone pavers.
- ⑦ Schlüter®-KERDI-DRAIN.
Complete set KD BV 50 ASLVB

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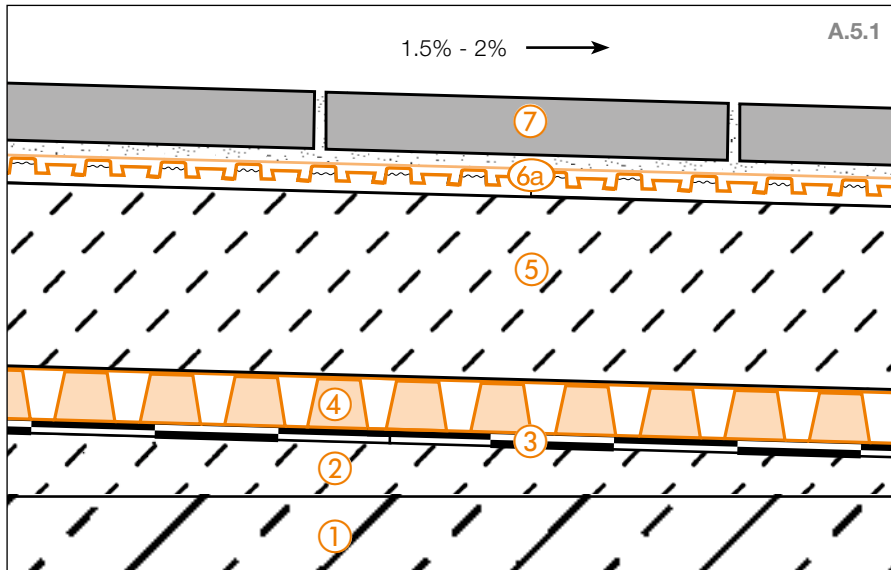
For more information on thresholds please see pages 29 and 30.





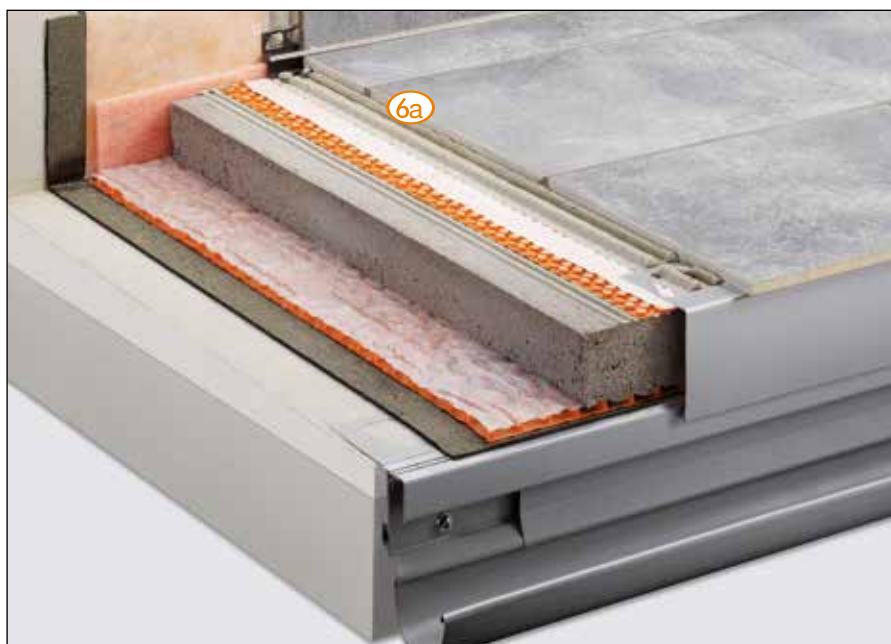
A.5 Structural assemblies over waterproofing layers

Waterproofing, drainage, load distribution layer, bonded drainage and uncoupling



The sloped support structure is protected against permeating water with a waterproofing assembly that meets the requirements of DIN 18531. Schlüter-TROBA-PLUS is installed as a drainage membrane between the waterproofing layer and the load distribution layer (screed) to drain away seepage. The passive capillary bonded drainage

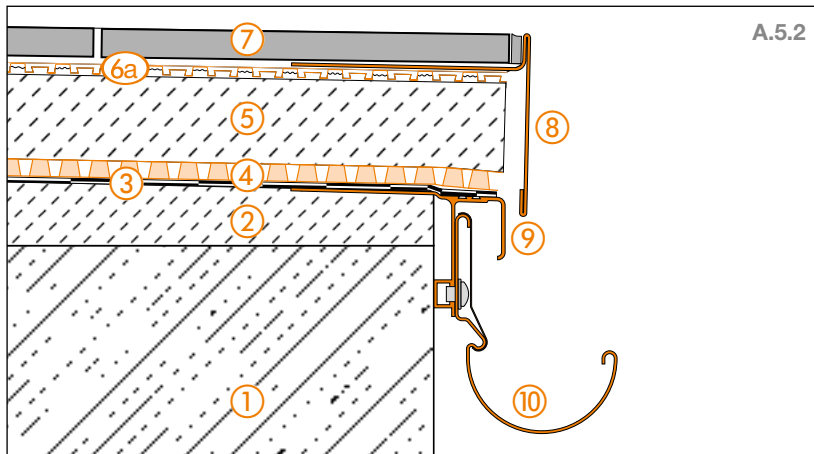
and uncoupling membrane Schlüter-DITRA-DRAIN is installed in the thin bed adhesive between the screed and the tile covering. This results in the broad ventilation of the top covering, which in turn promotes the quick and even drying/curing of the thin bed adhesive.



- ① **Cantilevered concrete slab.**
- ② **Sloped screed**
The construction has to be sufficiently sloped (1.5% - 2%) to allow for proper drainage.
- ③ **Waterproofing assembly according to DIN 18531.**
- ④ **Schlüter®-TROBA-PLUS**
Passive capillary area drainage for the effective drainage of seepage and ventilation.
- ⑤ **Load distribution layer/screed**
Cement screed according to DIN 18560-2 or pervious mortar.
- ⑥a **Schlüter®-DITRA-DRAIN 4**
Polyethylene drainage mat installed in the thin bed method, for drainage, ventilation and uncoupling.
- ⑥b **Schlüter®-DITRA-DRAIN 8**
Special bonded drainage membrane for large areas.
- ⑦ **Ceramic tiles or natural stone pavers**
Installed (including large format) with a waterproof and weather resistant dry set tile adhesive.

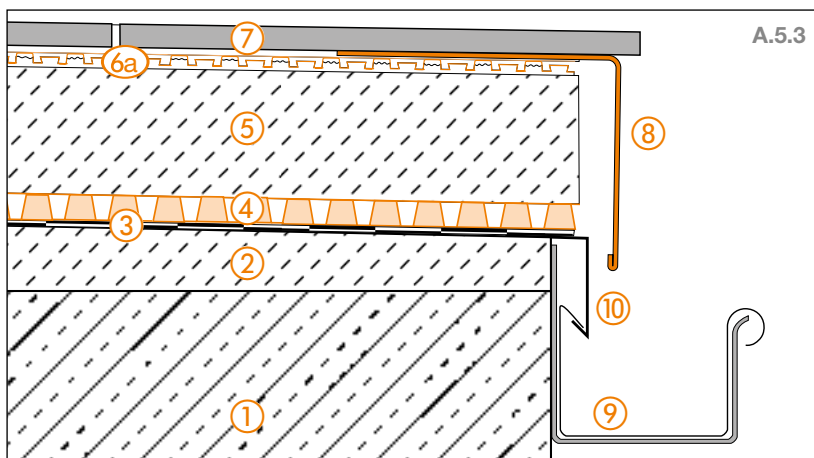


Edge detail 1



- ① Cantilevered concrete slab.
- ② Sloped screed (1.5% -2%).
- ③ Waterproofing assembly according to DIN 18531.
- ④ Schlüter®-TROBA-PLUS.
- ⑤ Load distribution layer/screed.
- ⑥a Schlüter®-DITRA-DRAIN 4.
- ⑥b Schlüter®-DITRA-DRAIN 8.
- ⑦ Ceramic tiles or natural stone pavers.
- ⑧ Schlüter®-BARA-RT.
It is important to ensure a drainage channel!
- ⑨ Schlüter®-BARA-RTK.
- ⑩ Schlüter®-BARIN.

Edge detail 2

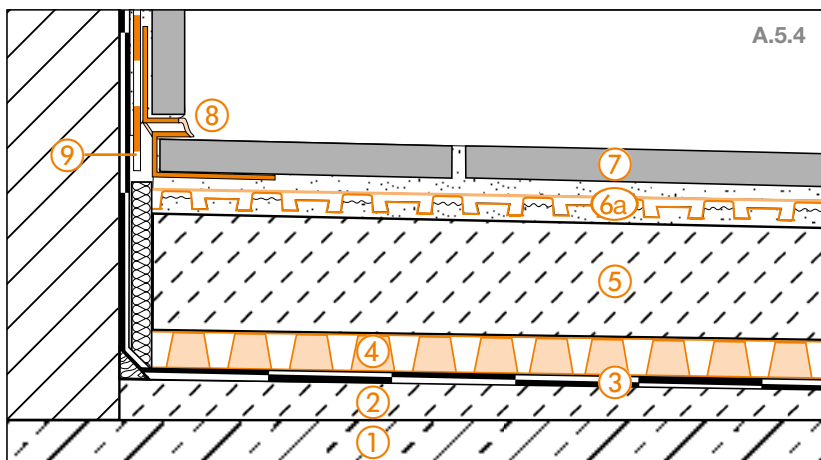


- ① Cantilevered concrete slab.
- ② Sloped screed (1.5% -2%).
- ③ Waterproofing assembly according to DIN 18531.
- ④ Schlüter®-TROBA-PLUS.
- ⑤ Load distribution layer/screed.
- ⑥a Schlüter®-DITRA-DRAIN 4.
- ⑥b Schlüter®-DITRA-DRAIN 8.
- ⑦ Ceramic tiles or natural stone pavers.
- ⑧ Schlüter®-BARA-RW.
It is important to ensure a drainage channel!
- ⑨ Gutter system.
- ⑩ Eave flashing.



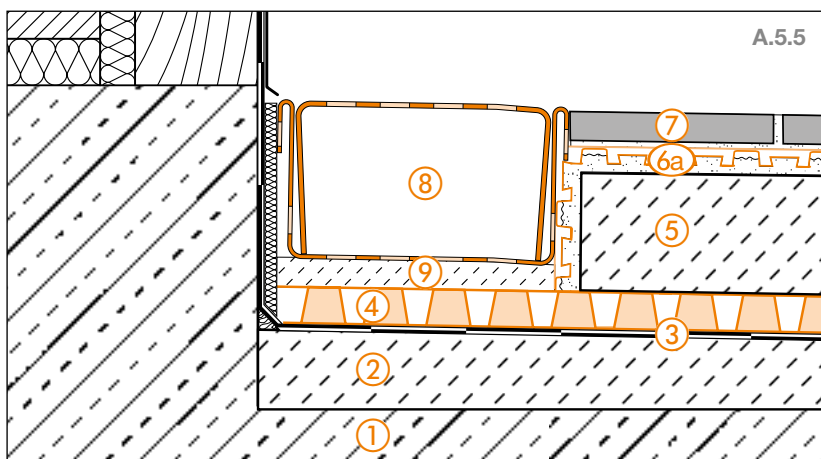


Floor to wall transition



- ① Cantilevered concrete slab.
- ② Sloped screed (1.5% -2%).
- ③ Waterproofing assembly according to DIN 18531.
- ④ Schlüter®-TROBA-PLUS.
- ⑤ Load distribution layer/screed.
- ⑥a Schlüter®-DITRA-DRAIN 4.
- ⑥b Schlüter®-DITRA-DRAIN 8.
- ⑦ Ceramic tiles or natural stone pavers.
- ⑧ Schlüter®-DILEX-EKE.
- ⑨ Schlüter®-KERDI-KEBA.

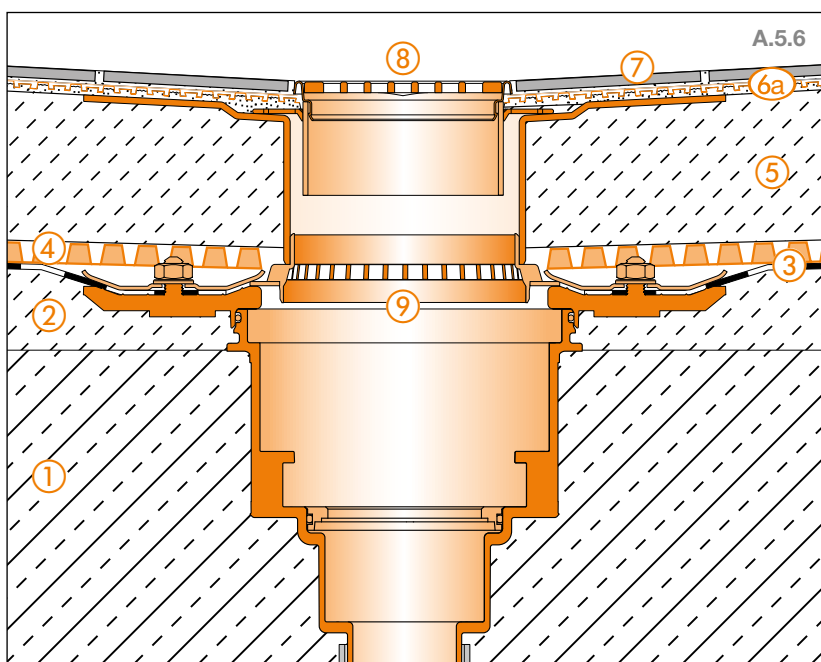
Door transition



- ① Cantilevered concrete slab.
- ② Sloped screed (1.5% -2%).
- ③ Waterproofing assembly according to DIN 18531.
- ④ Schlüter®-TROBA-PLUS.
- ⑤ Load distribution layer/screed.
- ⑥a Schlüter®-DITRA-DRAIN 4.
- ⑥b Schlüter®-DITRA-DRAIN 8.
- ⑦ Ceramic tiles or natural stone pavers.
- ⑧ Schlüter®-TROBA-LINE-TL.
Keep drainage openings unobstructed!
- ⑨ Mortar spot bedding.

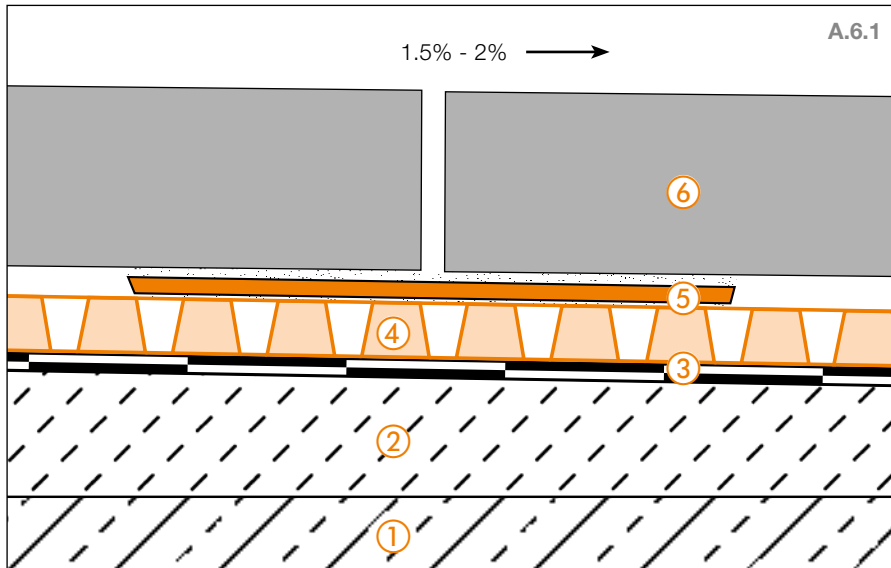
For more information on thresholds please see pages 29 and 30.

Floor drain



- ① Cantilevered concrete slab.
- ② Sloped screed (1.5% -2%).
- ③ Waterproofing assembly according to DIN 18531.
- ④ Schlüter®-TROBA-PLUS.
- ⑤ Load distribution layer/screed.
- ⑥a Schlüter®-DITRA-DRAIN 4.
- ⑥b Schlüter®-DITRA-DRAIN 8.
- ⑦ Ceramic tiles or natural stone pavers.
- ⑧ Schlüter®-KERDI-DRAIN.
Grate/frame set KD R10
Keep drainage openings unobstructed!
- ⑨ Schlüter®-KERDI-DRAIN.
Floor drain set KD BV 50 MSBB

A.6 Loose installation over Schlüter®-TROBA-PLUS 8G Using thin bed mortar points with Schlüter®-TROBA-STELZ-DR



In this type of assembly, the high impact area drainage membrane Schlüter-TROBA-PLUS 8G is installed underneath self supporting pavers and guarantees the efficient drainage of water that seeps through the open joints between the pavers. Schlüter-TROBA-STELZ-DR are used as casting mould rings to create evenly spaced adhe-

sive points of thin bed mortar for the self supporting pavers.

Note: TROBA-STELZ-DR casting mould rings can be removed after the application of the thin bed screed and reused in other applications.

- ① **Cantilevered concrete slab.**
- ② **Sloped screed**
The construction has to be sufficiently sloped (1.5% - 2%) to allow for proper drainage.
- ③ **Waterproofing assembly according to DIN 18531.**
- ④ **Schlüter®-TROBA-PLUS 8G**
High impact drainage membrane for use underneath self supporting pavers and for permanently effective drainage of water seeping through the open joints between pavers.
- ⑤ **Schlüter®-TROBA-STELZ-DR**
Casting mould rings for thin bed screeds.
- ⑥ **Large format self supporting pavers**
Made of concrete, natural stone or ceramic material.

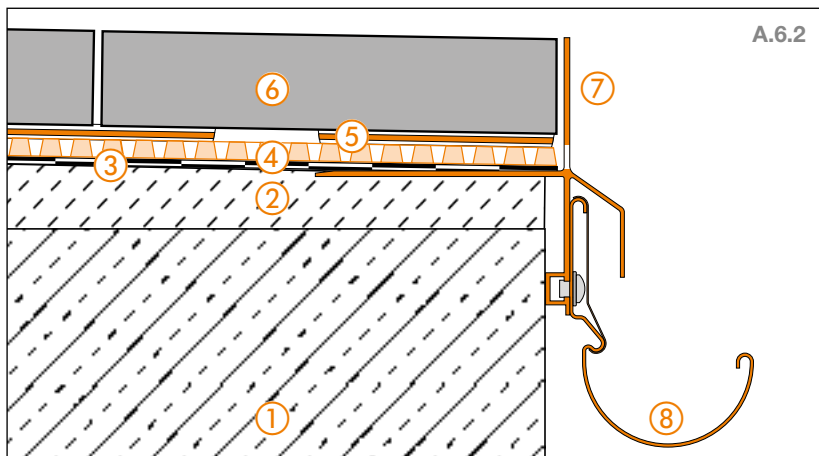


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An additional Schlüter-TROBA-STELZ-DR component may be placed below the centre of the respective paver if necessary.

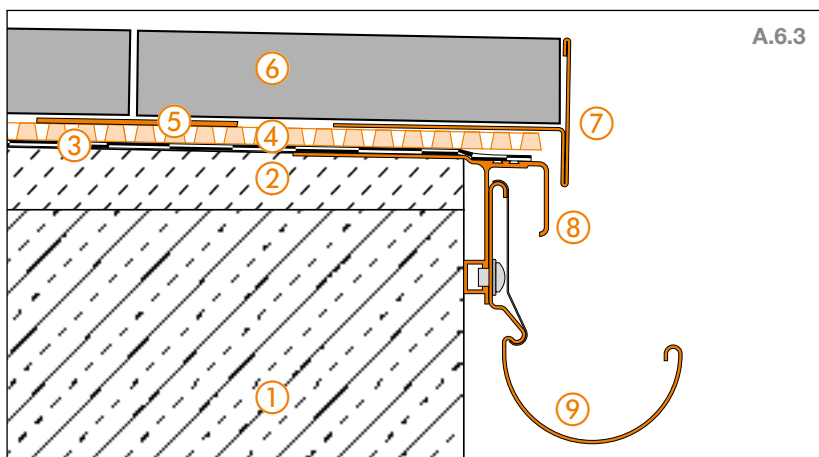


Edge detail 1



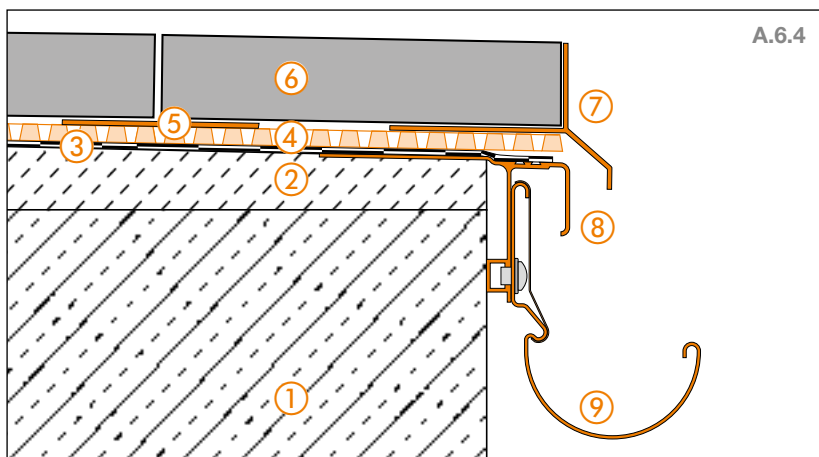
- ① Cantilevered concrete slab.
- ② Sloped screed (1.5% -2%).
- ③ Waterproofing assembly according to DIN 18531.
- ④ Schlüter®-TROBA-PLUS 8G.
- ⑤ Schlüter®-TROBA-STELZ-DR.
- ⑥ Large format, self supporting pavers.
- ⑦ Schlüter®-BARA-RKLT.
Keep drainage openings unobstructed!
- ⑧ Schlüter®-BARIN.

Edge detail 2



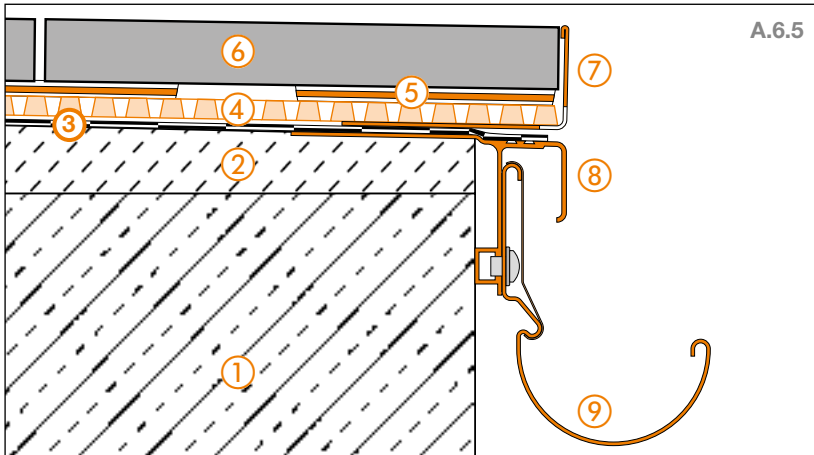
- ① Cantilevered concrete slab.
- ② Sloped screed (1.5% -2%).
- ③ Waterproofing assembly according to DIN 18531.
- ④ Schlüter®-TROBA-PLUS 8G.
- ⑤ Schlüter®-TROBA-STELZ-DR.
- ⑥ Large format, self supporting pavers.
- ⑦ Schlüter®-BARA-RT.
It is important to ensure a drainage channel!
- ⑧ Schlüter®-BARA-RTK.
- ⑨ Schlüter®-BARIN.

Edge detail 3



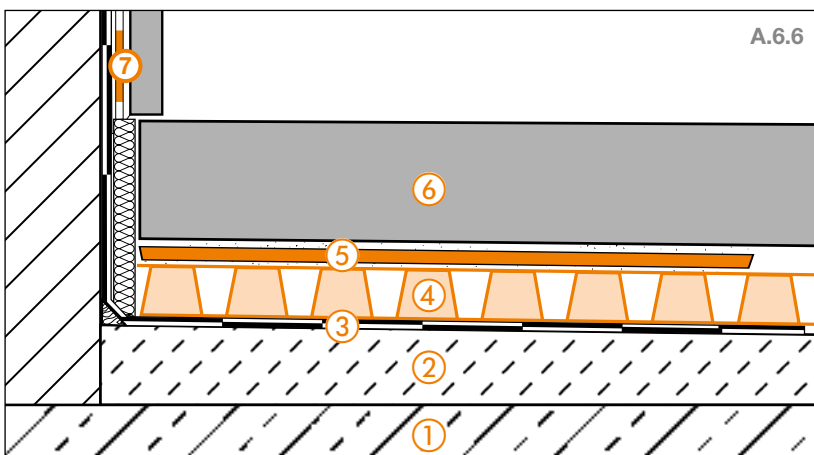
- ① Cantilevered concrete slab.
- ② Sloped screed (1.5% -2%).
- ③ Waterproofing assembly according to DIN 18531.
- ④ Schlüter®-TROBA-PLUS 8G.
- ⑤ Schlüter®-TROBA-STELZ-DR.
- ⑥ Large format, self supporting pavers.
- ⑦ Schlüter®-BARA-RK.
It is important to ensure a drainage channel!
- ⑧ Schlüter®-BARA-RTK.
- ⑨ Schlüter®-BARIN.

Edge detail 4



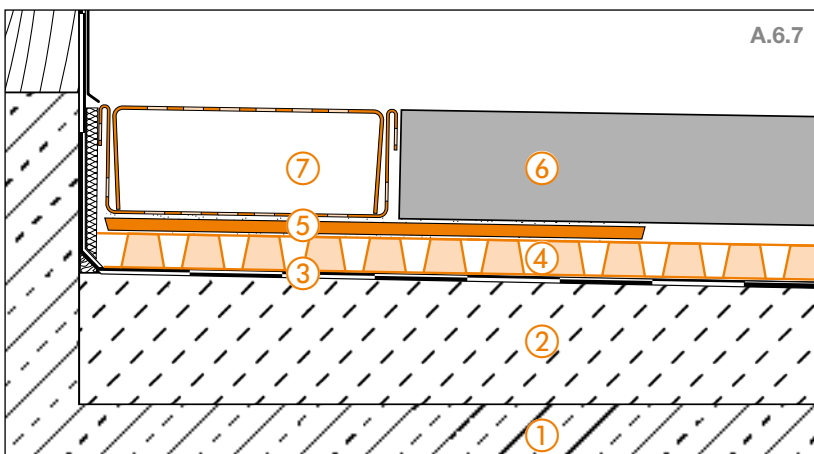
- ① Cantilevered concrete slab.
- ② Sloped screed (1.5% -2%).
- ③ Waterproofing assembly according to DIN 18531.
- ④ Schlüter®-TROBA-PLUS 8G.
- ⑤ Schlüter®-TROBA-STELZ-DR.
- ⑥ Large format, self supporting pavers.
- ⑦ Schlüter®-BARA-RWL.
Keep drainage openings unobstructed!
- ⑧ Schlüter®-BARA-RTK.
- ⑨ Schlüter®-BARIN.

Floor to wall transition



- ① Cantilevered concrete slab.
- ② Sloped screed (1.5% -2%).
- ③ Waterproofing assembly according to DIN 18531.
- ④ Schlüter®-TROBA-PLUS 8G.
- ⑤ Schlüter®-TROBA-STELZ-DR.
- ⑥ Large format, self supporting pavers.
- ⑦ Schlüter®-KERDI.

Door transition



- ① Cantilevered concrete slab.
- ② Sloped screed (1.5% -2%).
- ③ Waterproofing assembly according to DIN 18531.
- ④ Schlüter®-TROBA-PLUS 8G.
- ⑤ Schlüter®-TROBA-STELZ-DR.
- ⑥ Large format, self supporting pavers.
- ⑦ Schlüter®-TROBA-LINE-TL.



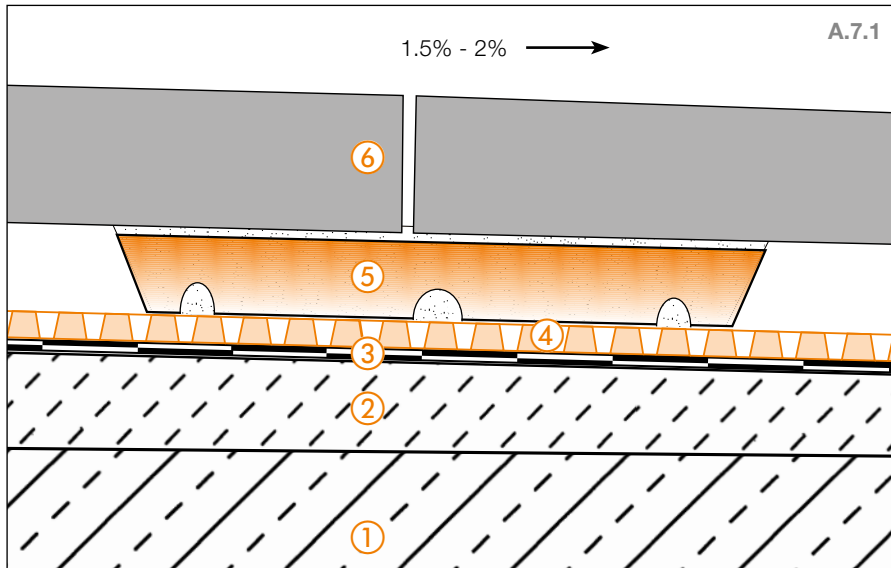
For more information on thresholds please see pages 29 and 30.





A.7 Structural assemblies over mortar stilts

Installation with Schlüter®-TROBA-STELZ mortar casting mould rings



- ① **Cantilevered concrete slab.**
- ② **Sloped screed**
The construction has to be sufficiently sloped (1.5% - 2%) to allow for proper drainage.
- ③ **Waterproofing assembly according to DIN 18531.**
- ④ **Schlüter®-TROBA-PLUS 8G**
High impact drainage membrane for use underneath self supporting pavers and for permanently effective drainage of water seeping through the open joints between pavers.
- ⑤ **Schlüter®-TROBA-STELZ-MR**
Plastic casting mould rings that are used as installation aids for large format pavers on balconies and terraces.
- ⑥ **Large format self supporting pavers**
Made of concrete, natural stone or ceramic material.

Schlüter-TROBA-STELZ-MR are plastic casting mould rings that are used as installation aids for large format pavers. The 25 mm high plastic rings are installed at the cross sections of the pavers and remain in the assembly once they have been filled with fresh mortar (preferably pervious mortar).

This allows for easy levelling of the covering surface. Additionally, the open spaces between the stilts ensure the fast drainage of water that seeps into the joints between the pavers.

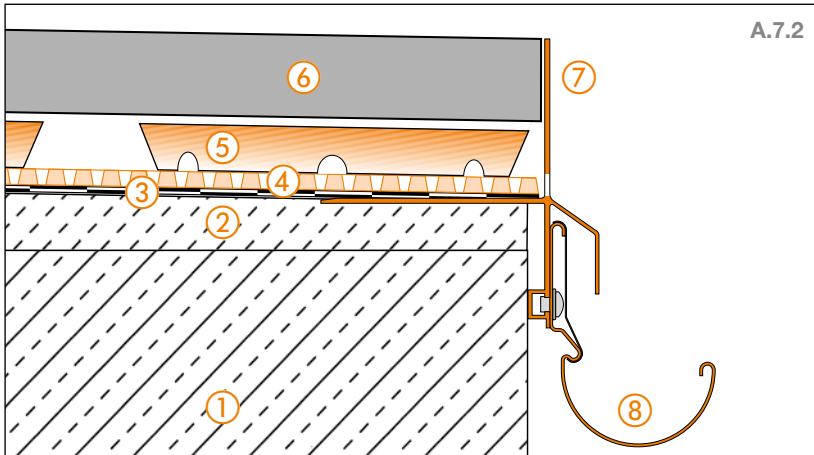


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An additional Schlüter-TROBA-STELZ-MR component may be placed below the centre of the respective paver if necessary.

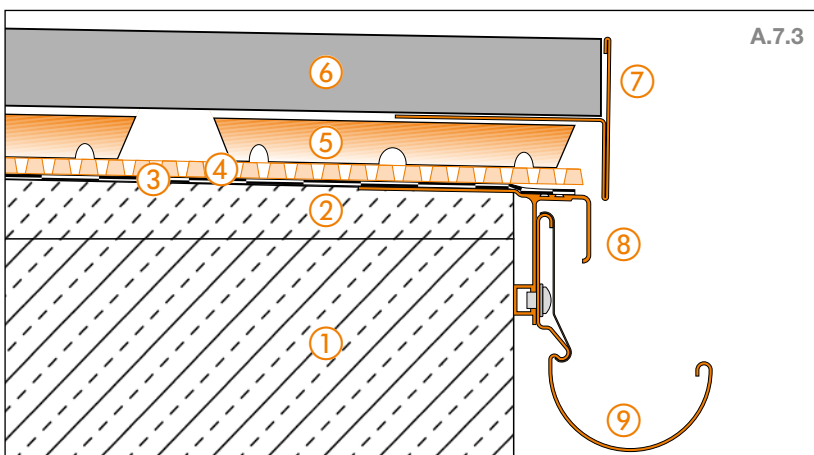


Edge detail 1



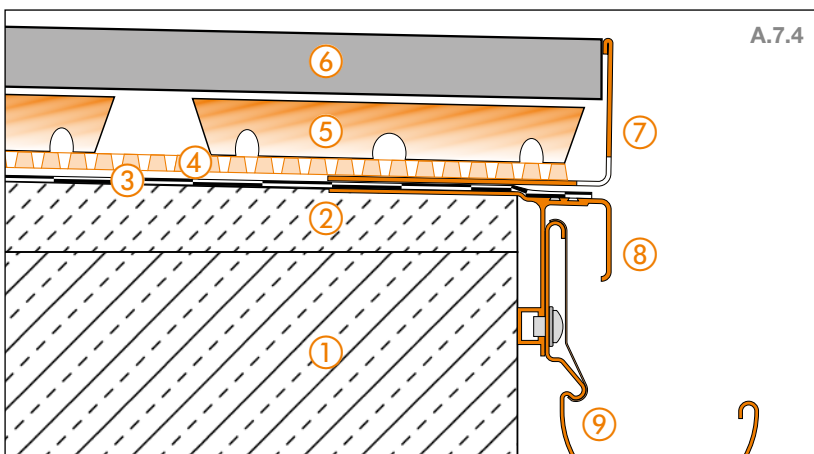
- ① Cantilevered concrete slab.
- ② Sloped screed (1.5% -2%).
- ③ Waterproofing assembly according to DIN 18531.
- ④ Schlüter®-TROBA-PLUS 8G.
- ⑤ Schlüter®-TROBA-STELZ-MR.
- ⑥ Large format, self supporting pavers.
- ⑦ Schlüter®-BARA-RKLT.
Keep drainage openings unobstructed!
- ⑧ Schlüter®-BARIN.

Edge detail 2



- ① Cantilevered concrete slab.
- ② Sloped screed (1.5% -2%).
- ③ Waterproofing assembly according to DIN 18531.
- ④ Schlüter®-TROBA-PLUS 8G.
- ⑤ Schlüter®-TROBA-STELZ-MR.
- ⑥ Large format, self supporting pavers.
- ⑦ Schlüter®-BARA-RT.
It is important to ensure a drainage channel!
- ⑧ Schlüter®-BARA-RTK.
- ⑨ Schlüter®-BARIN.

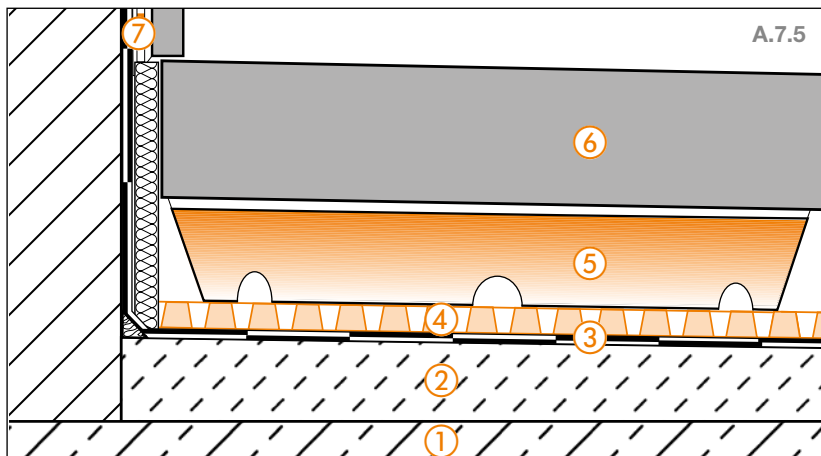
Edge detail 3



- ① Cantilevered concrete slab.
- ② Sloped screed (1.5% -2%).
- ③ Waterproofing assembly according to DIN 18531.
- ④ Schlüter®-TROBA-PLUS 8G.
- ⑤ Schlüter®-TROBA-STELZ-MR.
- ⑥ Large format, self supporting pavers.
- ⑦ Schlüter®-BARA-RWL.
Keep drainage openings unobstructed!
- ⑧ Schlüter®-BARA-RTK.
- ⑨ Schlüter®-BARIN.

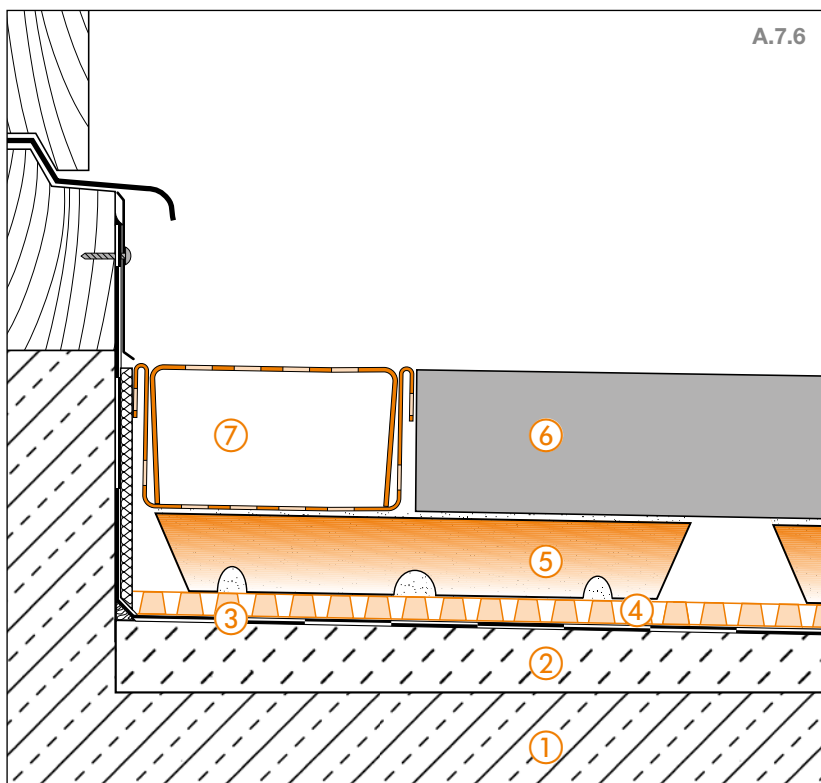


Floor to wall transition



- ① Cantilevered concrete slab.
- ② Sloped screed (1.5% -2%).
- ③ Waterproofing assembly according to DIN 18531.
- ④ Schlüter®-TROBA-PLUS 8G.
- ⑤ Schlüter®-TROBA-STELZ-MR.
- ⑥ Large format, self supporting pavers.
- ⑦ Schlüter®-KERDI.

Door transition



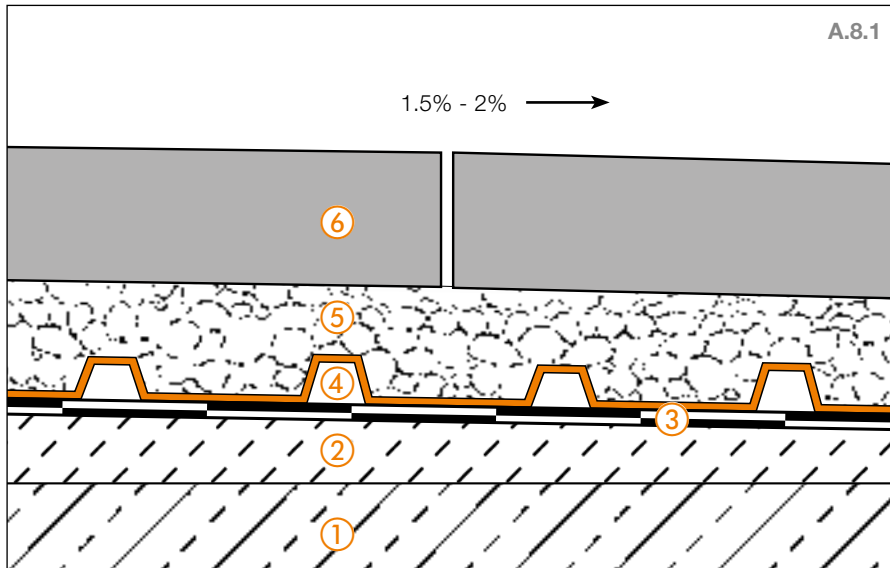
- ① Cantilevered concrete slab.
- ② Sloped screed (1.5% -2%).
- ③ Waterproofing assembly according to DIN 18531.
- ④ Schlüter®-TROBA-PLUS 8G.
- ⑤ Schlüter®-TROBA-STELZ-MR.
- ⑥ Large format, self supporting pavers.
- ⑦ Schlüter®-TROBA-LINE-TL.

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For more information on thresholds please see pages 29 and 30.

A.8 Structural assemblies installed over gravel/crushed stone beds

Loose installation on Schlüter®-TROBA in gravel/crushed stone beds



① **Cantilevered concrete slab.**

② **Sloped screed**

The construction has to be sufficiently sloped (1.5% - 2%) to allow for proper drainage.

③ **Waterproofing assembly according to DIN 18531.**

④ **Schlüter®-TROBA**

A protective drainage layer installed over waterproofing assemblies as an underlayment for crushed stone or gravel. It consists of a high impact, studded polyethylene mat with openings to the drainage channels.

⑤ **Gravel or crushed stone bed.**

⑥ **Large format self supporting pavers**

Made of concrete, natural stone or ceramic material.

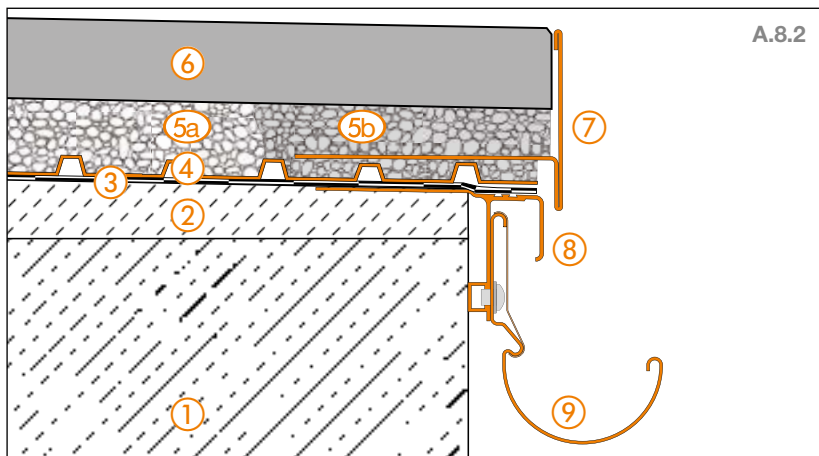
In this type of assembly, the area drainage membrane Schlüter-TROBA serves as a protective separating layer over the waterproofing assembly and protects it from the impression of individual stones. Additionally, the product prevents the formation of "ice concrete" when water freezes on the water-

proofing assembly. TROBA allows for the permanently effective drainage of water that seeps through the open joints between the self supporting pavers. Thanks to the special trapezoid shaped studs, loads are directly transferred to the waterproof substrate.





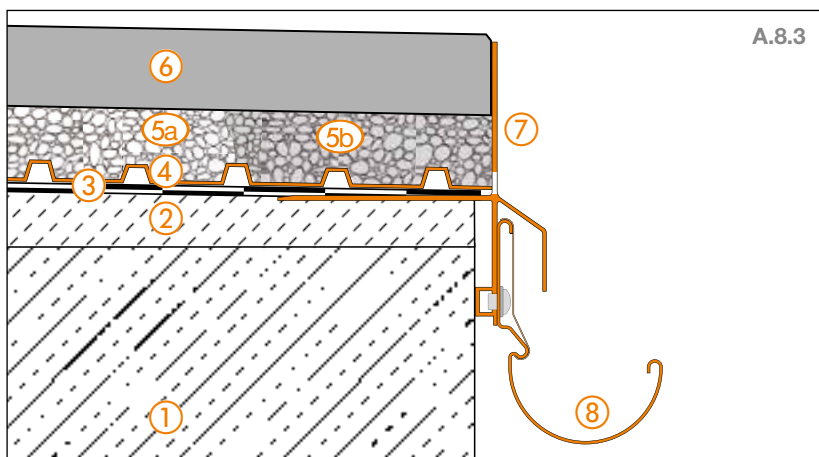
Edge detail 1



A.8.2

- ① Cantilevered concrete slab.
- ② Sloped screed (1.5% -2%).
- ③ Waterproofing assembly according to DIN 18531.
- ④ Schlüter®-TROBA.
- ⑤a Gravel or crushed stone bed.
- ⑤b Contained gravel or crushed stone bed in the perimeter area.
- ⑥ Large format, self supporting pavers.
- ⑦ Schlüter®-BARA-RT.
It is important to ensure a drainage channel!
- ⑧ Schlüter®-BARA-RTK.
- ⑨ Schlüter®-BARIN.

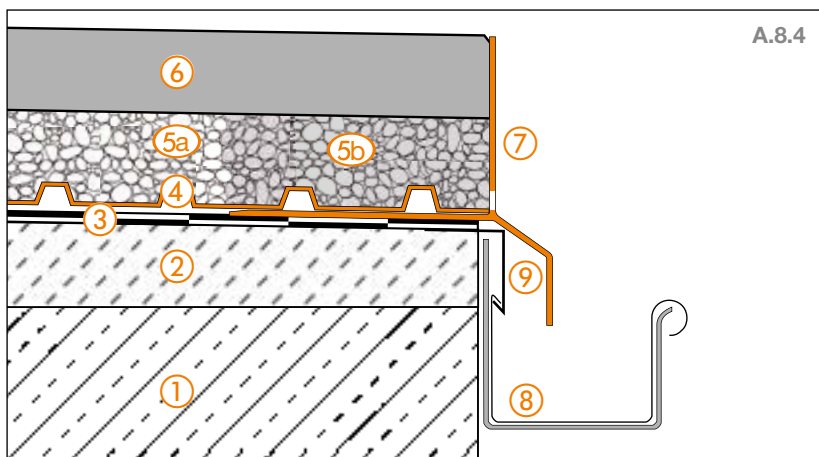
Edge detail 2



A.8.3

- ① Cantilevered concrete slab.
- ② Sloped screed (1.5% -2%).
- ③ Waterproofing assembly according to DIN 18531.
- ④ Schlüter®-TROBA.
- ⑤a Gravel or crushed stone bed.
- ⑤b Contained gravel or crushed stone bed in the perimeter area.
- ⑥ Large format, self supporting pavers.
- ⑦ Schlüter®-BARA-RKLT.
Keep drainage openings unobstructed!
- ⑧ Schlüter®-BARIN.

Edge detail 3

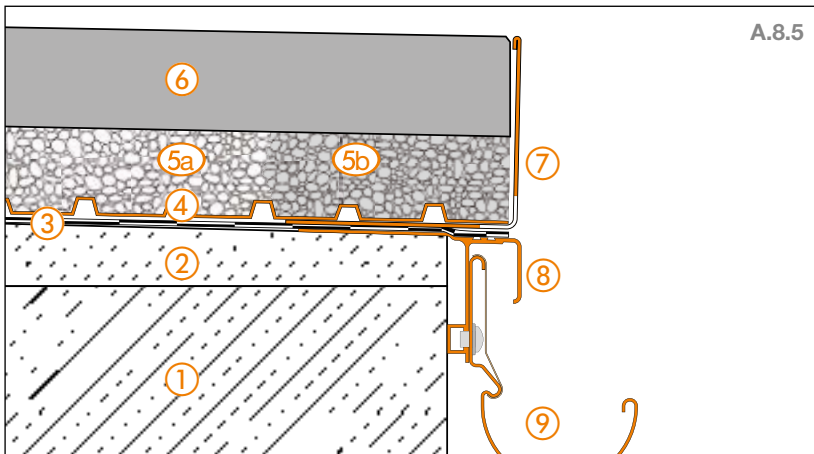


A.8.4

- ① Cantilevered concrete slab.
- ② Sloped screed (1.5% -2%).
- ③ Waterproofing assembly according to DIN 18531.
- ④ Schlüter®-TROBA.
- ⑤a Gravel or crushed stone bed.
- ⑤b Contained gravel or crushed stone bed in the perimeter area.
- ⑥ Large format, self supporting pavers.
- ⑦ Schlüter®-BARA-RKLT.
Keep drainage openings unobstructed!
- ⑧ Gutter system.
- ⑨ Eave flashing.

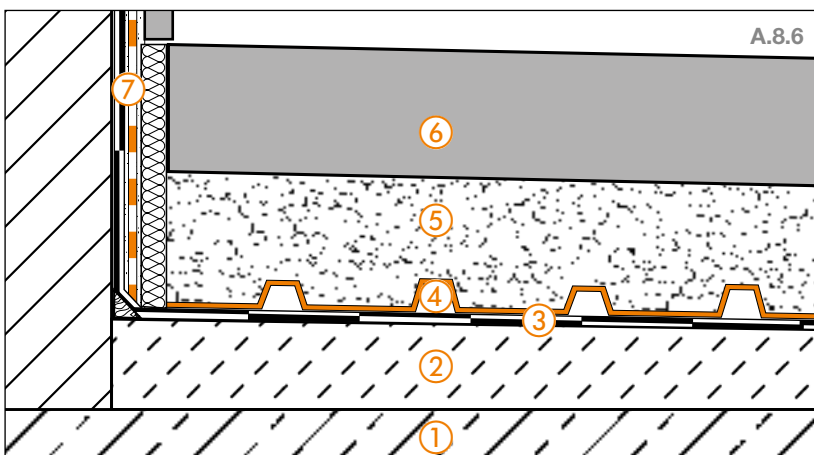


Edge detail 4



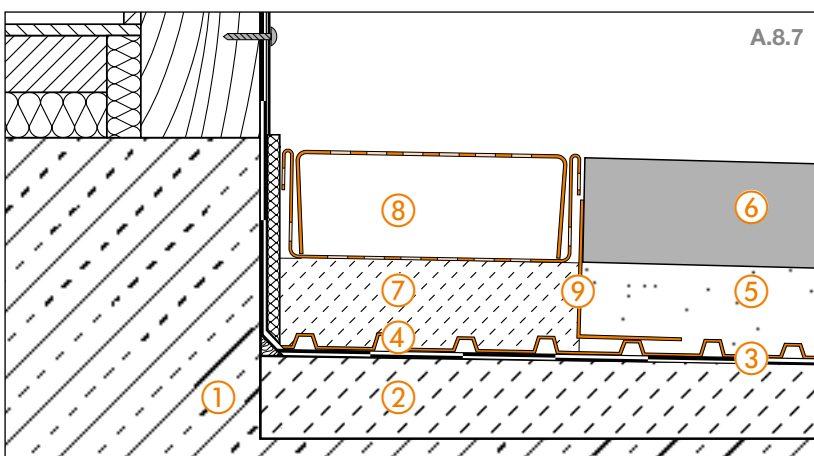
- ① Cantilevered concrete slab.
- ② Sloped screed (1.5% -2%).
- ③ Waterproofing assembly according to DIN 18531.
- ④ Schlüter®-TROBA.
- ⑤a Gravel or crushed stone bed.
- ⑤b Contained gravel or crushed stone bed in the perimeter area.
- ⑥ Large format, self supporting pavers.
- ⑦ Schlüter®-BARA-RWL.
Keep drainage openings unobstructed!
- ⑧ Schlüter®-BARA-RTK.
- ⑨ Schlüter®-BARIN.

Floor to wall transition



- ① Cantilevered concrete slab.
- ② Sloped screed (1.5% -2%).
- ③ Waterproofing assembly according to DIN 18531.
- ④ Schlüter®-TROBA.
- ⑤ Gravel or crushed stone bed.
- ⑥ Large format, self supporting pavers.
- ⑦ Schlüter®-KERDI.

Door transition



- ① Cantilevered concrete slab.
- ② Sloped screed (1.5% -2%).
- ③ Waterproofing assembly according to DIN 18531.
- ④ Schlüter®-TROBA.
- ⑤ Gravel or crushed stone bed.
- ⑥ Large format, self supporting pavers.
- ⑦ Mortar spot bedding.
- ⑧ Schlüter®-TROBA-LINE-TL.
- ⑨ Schlüter®-TROBA-LINE-TLK-E.
Gravel containment profile.



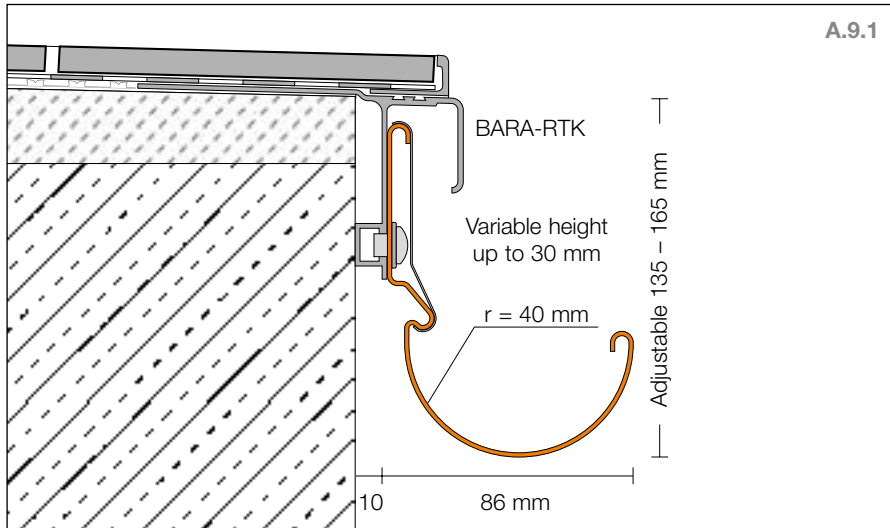
For more information on thresholds please see pages 29 and 30.





A.9 Other details

Edge drainage 1



Schlüter-BARIN is a gutter system of colour coated aluminium for the drainage of balconies and terraces. It is designed for attachment to the corresponding Schlüter-BARA profiles.

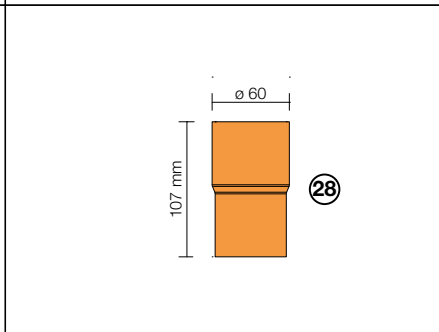
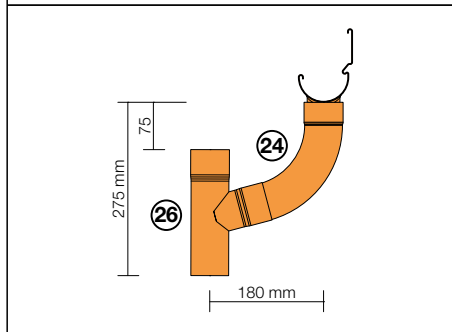
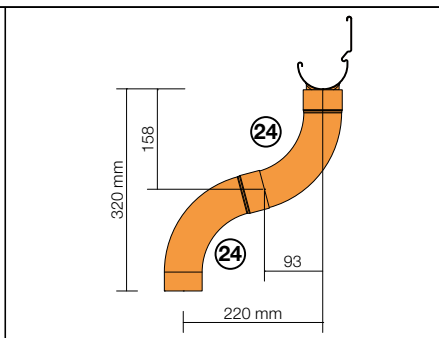
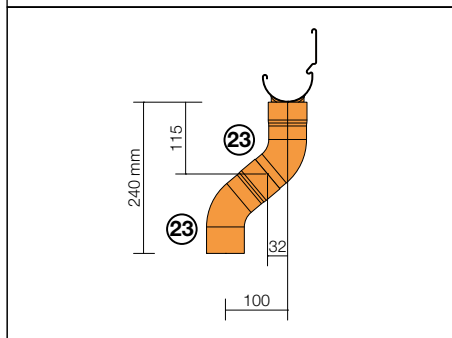
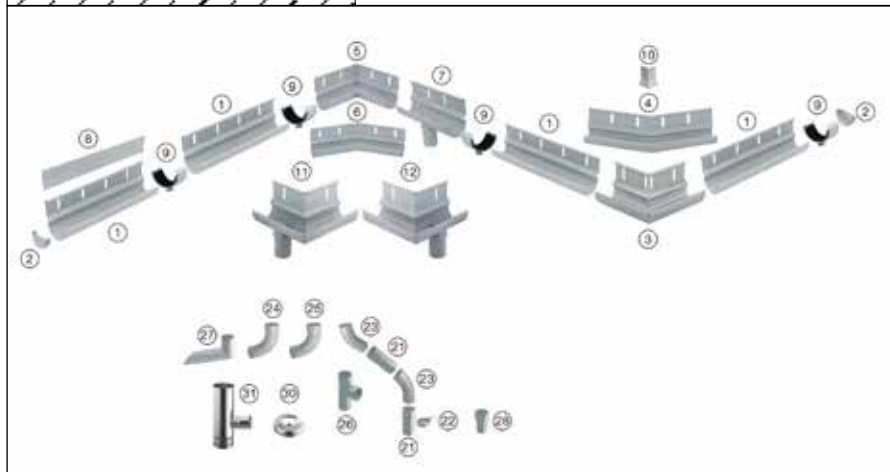
Perimeter drainage systems are quick and easy to install with the Schlüter-BARIN gutter system.

Schlüter®-BARIN gutter system

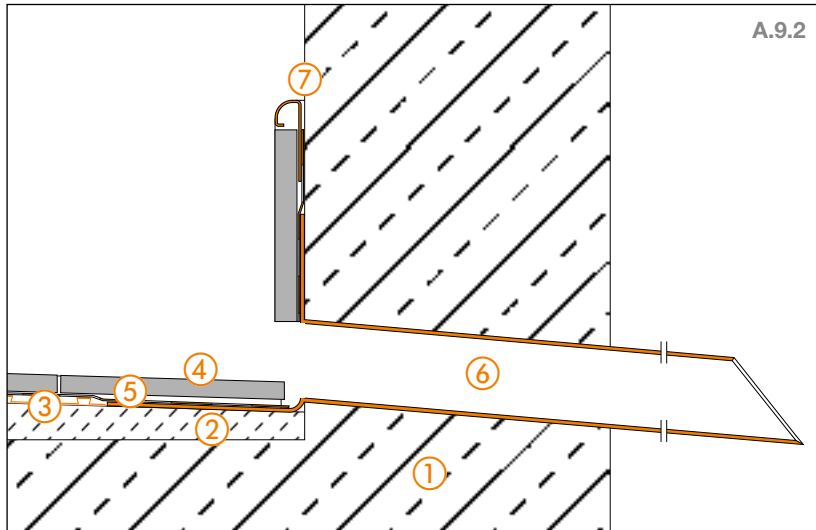
- ① Gutter 2.50 m
- ② End cap
- ③ Exterior corner 90°
- ④ Exterior corner 135°
- ⑤ Interior corner 90°
- ⑥ Interior corner 135°
- ⑦ Gutter unit 20 cm with connection to downspout
- ⑧ Gutter cover profile
- ⑨ Gutter connector
- ⑩ Corner cover profile
- ⑪ Exterior corner with left-side drain
- ⑫ Exterior corner with right-side drain

Schlüter®-BARIN pipe system

- ⑳ Down pipe Ø 60 mm
- ㉑ Pipe clamp
- ㉒ Elbow pipe 40°
- ㉓ Elbow pipe 72°
- ㉔ Elbow pipe 85°
- ㉕ Tee pipe 72°
- ㉖ Spout
- ㉗ Clip-on connector
- ㉘ Downpipe cap Ø 60 mm
- ㉙ Tee pipe zinc/copper



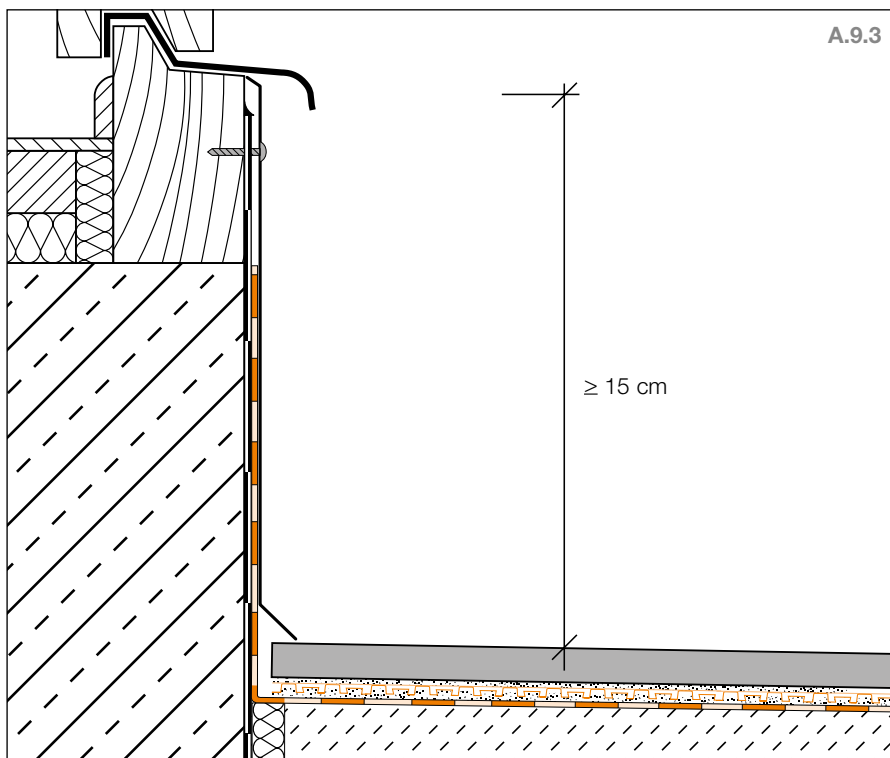
Edge drainage 2



Schlüter-KERDI-DRAIN-SP-E is a drainage spout that penetrates the balcony parapet. Spouts are required for fully enclosed balconies according to DIN EN 12056 (BS EN 12056) as an emergency drainage solution.

- ① Cantilevered concrete slab.
- ② Sloped screed (1.5% -2%).
- ③ Schlüter®-DITRA.
- ④ Ceramic tiles or natural stone pavers.
- ⑤ Schlüter®-KERDI-KEBA.
- ⑥ Schlüter®-KERDI-DRAIN-SP-E.
- ⑦ Schlüter®-RONDEDEC or Schlüter®-JOLLY.

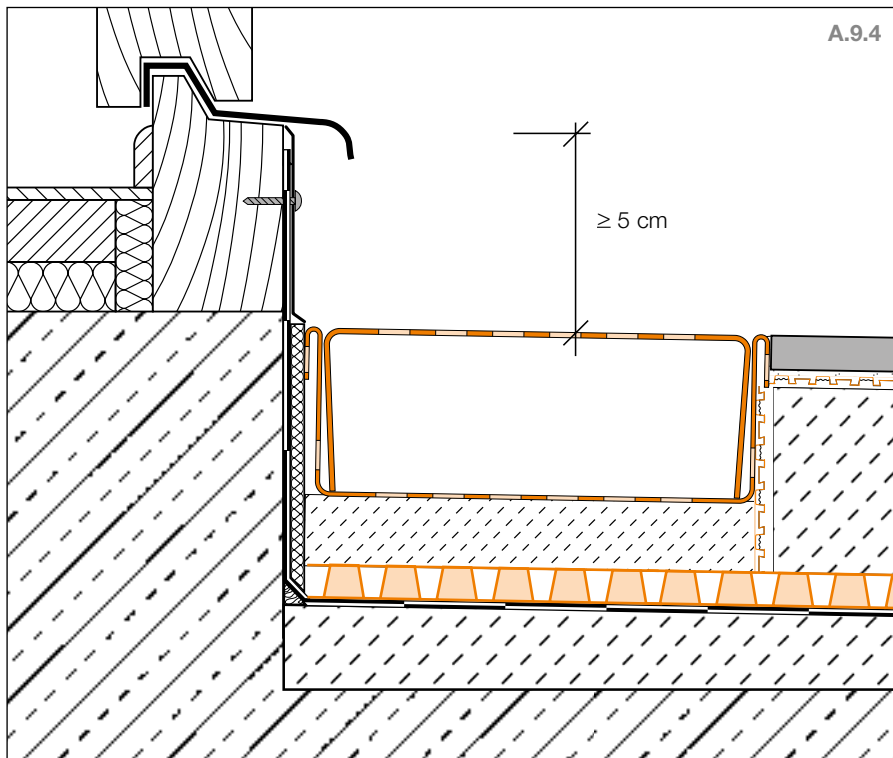
Threshold



According to DIN 18531-5, 8.6, waterproofing assemblies must extend 15 cm beyond the upper edge of the covering. In door transition areas, this rule results in thresholds that are at least 15 cm high.

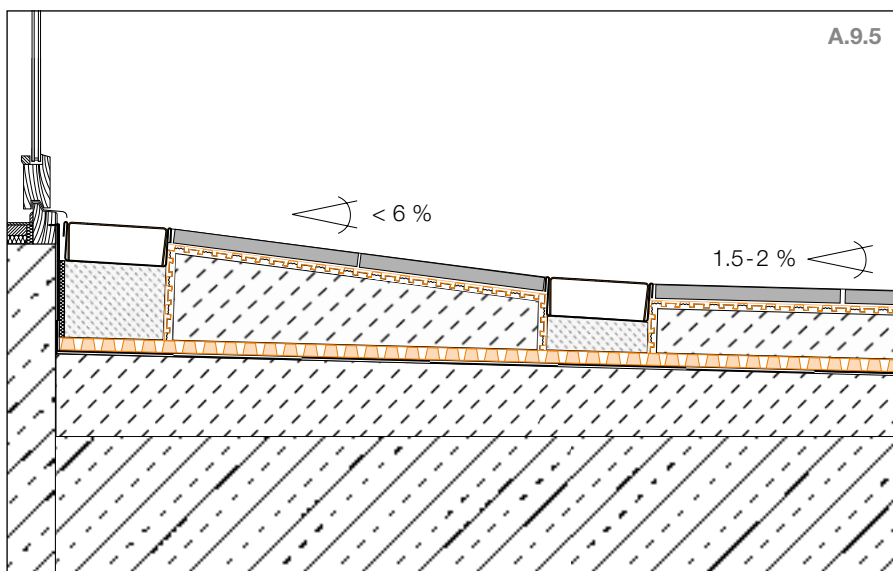


Drainage to Door transition



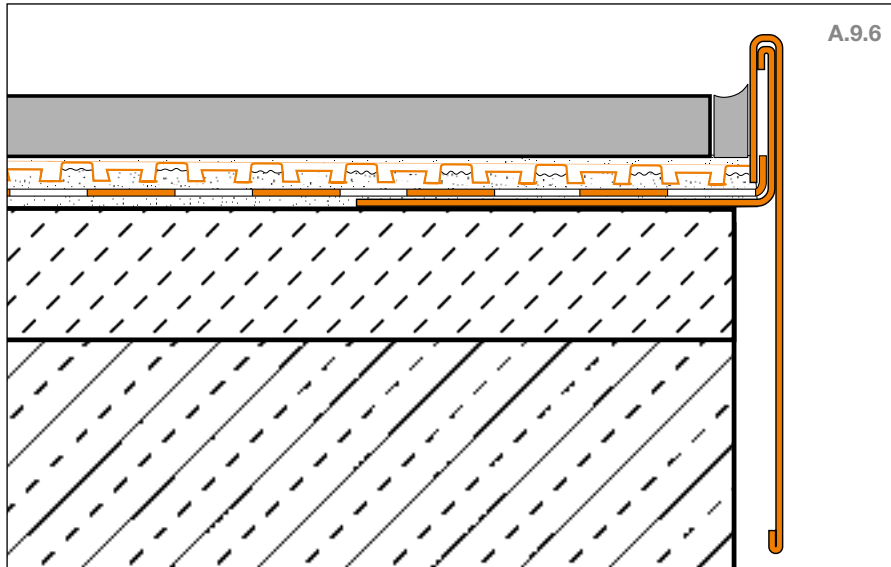
Schlüter-TROBA-LINE is a drainage channel that prevents water from pooling near doorways and wall transitions. According to construction guidelines for flat roofs the product can be used to reduce the height of DIN compliant thresholds from 15 cm to 5 cm.

Barrier free assembly



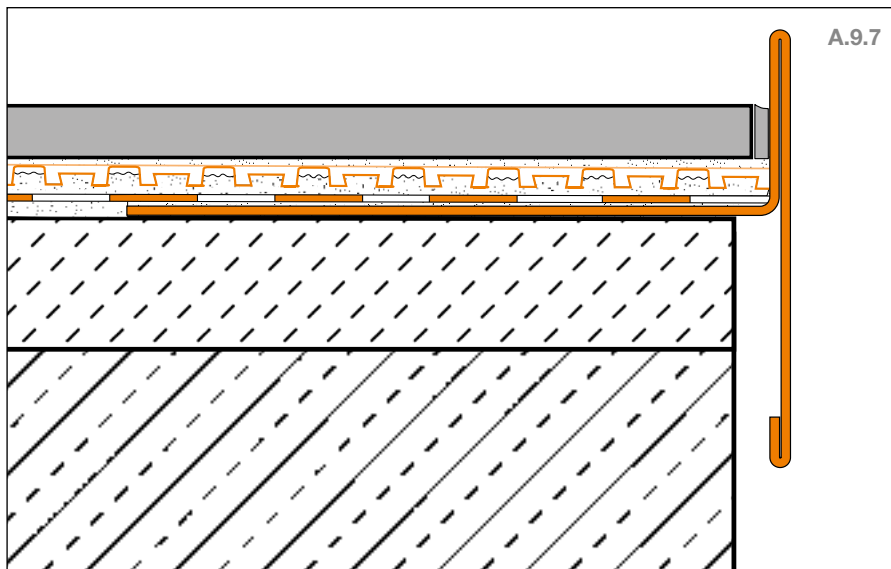
Schlüter-TROBA-LINE is suitable for creating barrier free assemblies (with thresholds below 2 cm) in the area of door openings. In these assemblies, a second TROBA-LINE is installed at a sufficiently large distance from the first. Special constructions such as this assembly require the prior approval of the owner.

Splash protection 1



Schlüter-BARA-RAP is a cover profile made of stainless steel or colour coated aluminium. Together with the support profile Schlüter-BARA-RW, it encloses the exposed (lateral) perimeter of balconies and terraces and prevents precipitation and cleaning water from splashing uncontrollably over the balcony edge.

Splash protection 2



Schlüter-BARA-RT is a T shaped connector profile for balcony and terrace coverings. If the profile geometry is selected to let one of the anchoring legs extend beyond the covering edge, it limits the exposed (lateral) perimeter and prevents precipitation and cleaning water from splashing uncontrollably over the balcony edge.



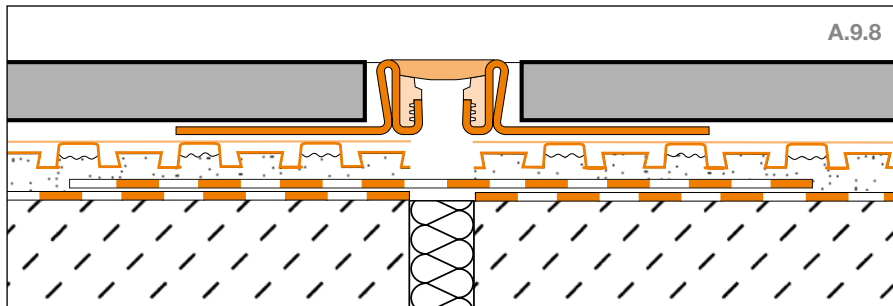
Movement joints

In accordance with the applicable construction standards, movement joints must be continued in the tile covering. The same standards specify that coverings made of large format pavers over Schlüter-DITRA and Schlüter-DITRA-DRAIN must be divided into bays with movement joints. In outdoor areas (balconies and ter-

aces) the length of these individual bays should not exceed 3 m. Depending on the construction of the substrate, smaller bays may be necessary. The bays should be of compact geometric dimensions (up to a ratio of approximately 1:2). Please refer to the installation information for the various profile types in the

Schlüter-DILEX series. Depending on the anticipated movements, profiles such as Schlüter-DILEX-BT or Schlüter-DILEX-KSBT should be installed over structural movement joints.

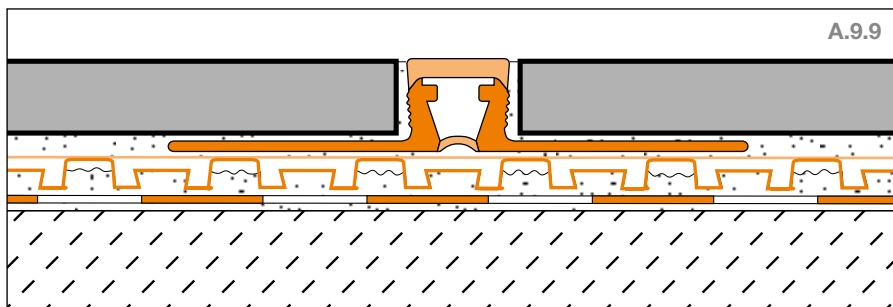
Movement joints



Schlüter-DITRA-DRAIN must be separated above the existing movement joints. If Schlüter-KERDI is used for waterproofing, the abutting seams must be covered with Schlüter-KERDI-FLEX, using the sealing adhesive Schlüter-KERDI-COLL-L.

Schlüter-DILEX-EKSN is a movement profile with edge protection. The profile's anchoring legs, made of stainless steel, are connected to a movement zone made of soft synthetic rubber.

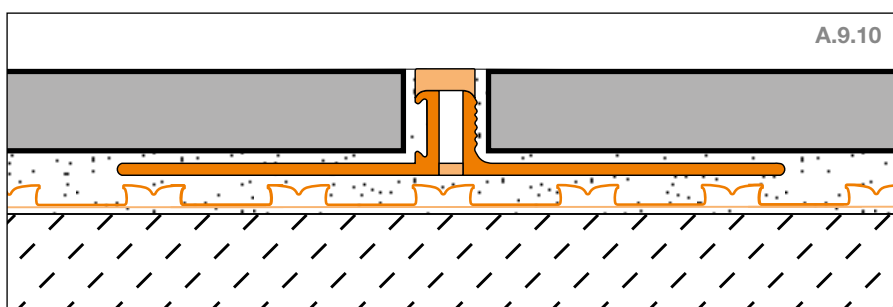
Movement joints



Schlüter-DILEX-BWB is a movement profile with lateral parts made of rigid recycled PVC. The upper movement zone is made of soft rubber and forms a 10 mm wide visible area.

i The ceramic covering must be divided into bays with movement joints above Schlüter-DITRA and Schlüter-DITRA-DRAIN in accordance with the applicable regulations. This also applies if the substrates were created without movement joints, for example in our Schlüter-BEKOTEC-DRAIN system. If using Schlüter-DILEX-BWS, the bay sizes should be limited to a maximum of 2.50 metres due to the small width.

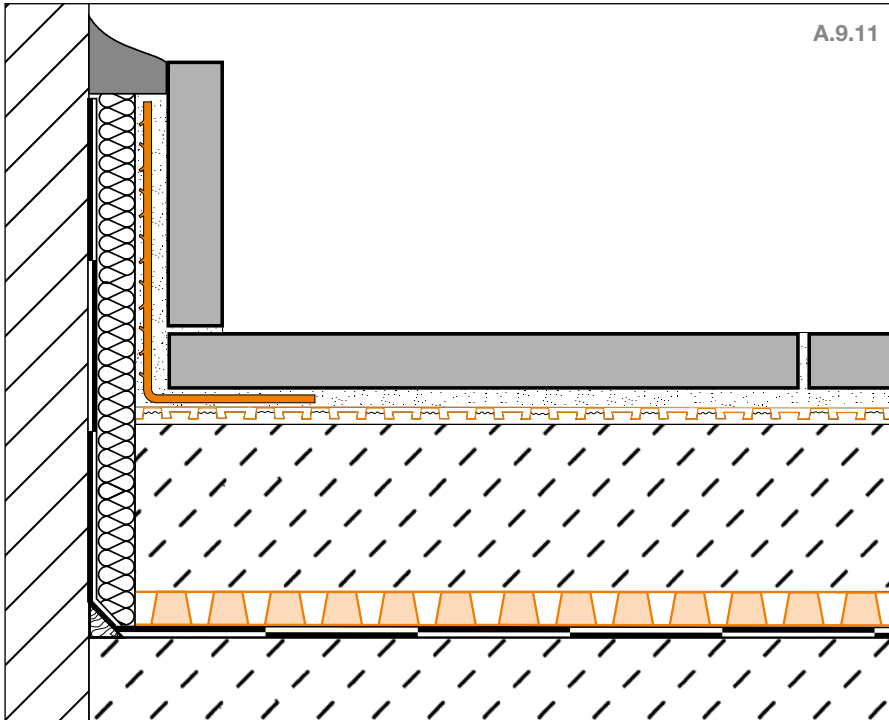
Movement joints



Schlüter-DILEX-BWS is a movement profile with lateral parts made of rigid recycled PVC. The movement zone is made of soft rubber and forms a 5 mm wide visible area.



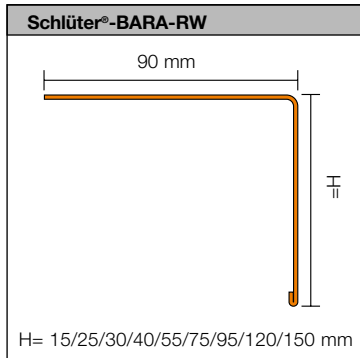
Skirting



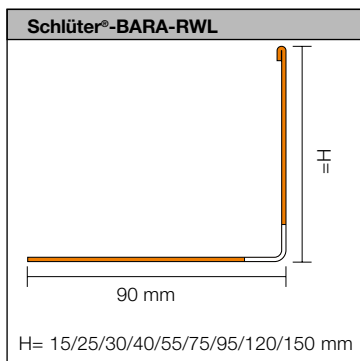
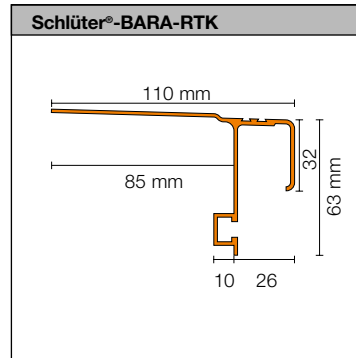
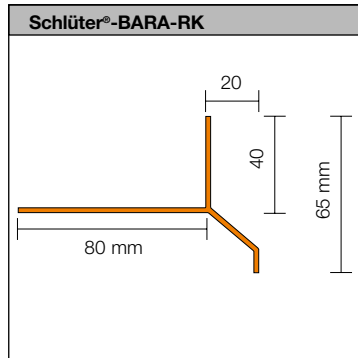
Schlüter-BARA-ESOT is a skirting support profile made of stainless steel for bonding skirting tiles to substrates that are not load bearing. An area drainage membrane (Schlüter-TROBA-PLUS) must be installed below the screed.



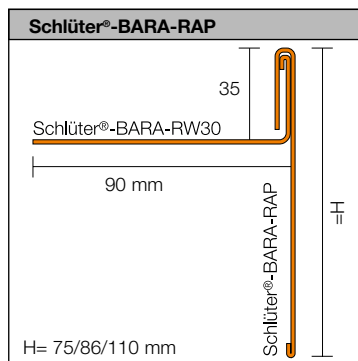
Profile cross sections



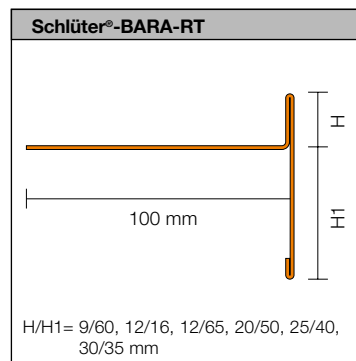
Product data sheet 5.3



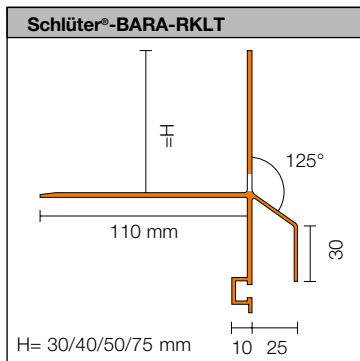
Product data sheet 5.15



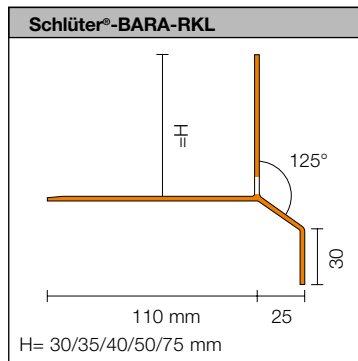
Product data sheet 5.17



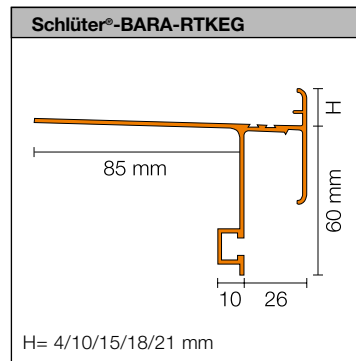
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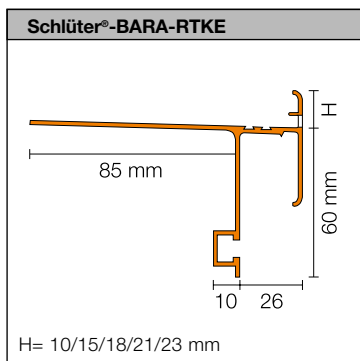
Product data sheet 5.20



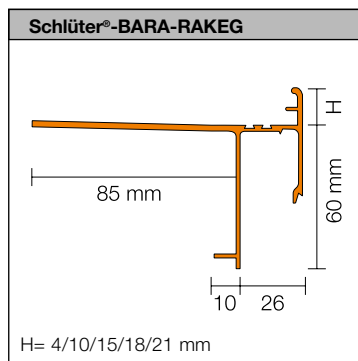
Product data sheet 5.20



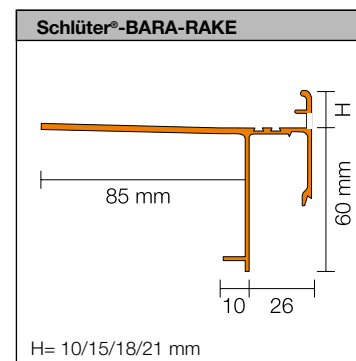
Product data sheet 5.21



Product data sheet 5.21

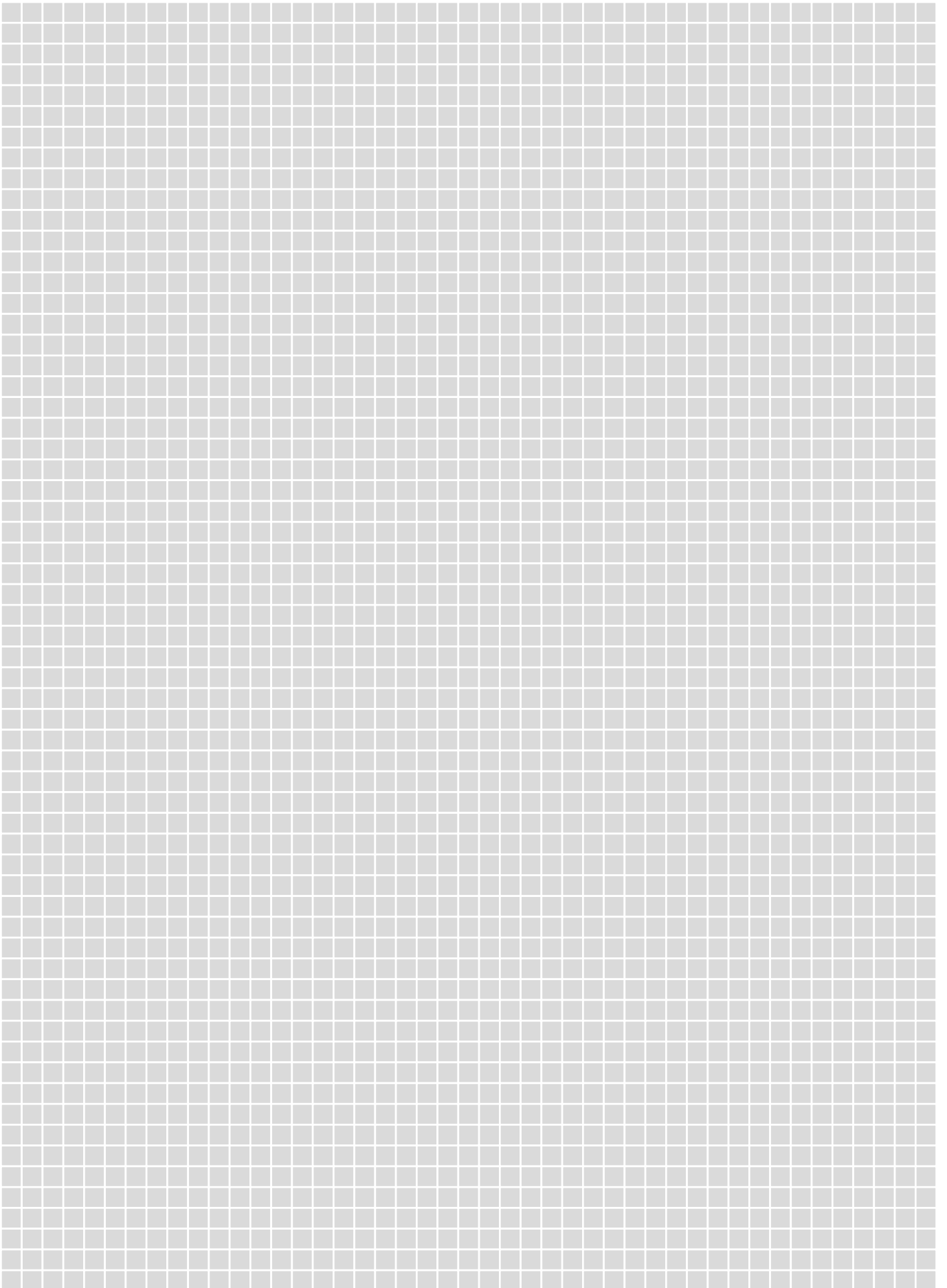


Product data sheet 5.22



Product data sheet 5.22







PROFILE OF INNOVATION

Schlüter-Systems KG · Schmölestraße 7 · D-58640 Iserlohn
Tel.: +49 2371 971-0 · Fax: +49 2371 971-1111 · info@schlueter.de · schlueter-systems.com