

TerraMaxx[®] RS

Aluminum frame system with intelligent screw connection technology

For dry laying of slab coverings on stilts.

For wood and WPC decking boards, please refer to the technical data sheet "TerraMaxx[®] RS decking boards".



Sturdy aluminum substructure for laying balcony and patio coverings.

Field of application

Accessible outdoor surfaces in private and public areas, such as (roof) terraces and balconies.

Covering types

Suitable are ceramic, natural and artificial stone coverings as recommended by the covering manufacturer for the respective area of application and the respective type of covering installation.

Substrates

- Bonded substrates, concrete surfaces with or without waterproofing
- Unbound, earth-contacting substrates with delayed seepage (e.g. gravel-graded, vibrated and compacted surfaces)
- Steel/wood girder constructions with puncture-proof covers

Properties

- Creates a level, firm laying surface
- Reduces spring effects and increases the positional stability of flooring panels on thermal insulation substrates
- Ideal for laying large-format coverings, e.g. for:
 - Covering slabs that require more than 1 support per slab corner
 - Transom and plank formats
 - Laying bonded joints or T-joints
- Threaded channels and guide grooves along the entire length of the profile enable fast and high-strength connections. Position corrections of the profile connectors can be carried out with millimeter precision.
- By mounting the system on slab or pedestal bearings, the construction can be adjusted in height and leveled from all sides
- Ensures backflow-free drainage of drain grates at low or barrier-free door connections in accordance with DIN 18531-1:2017-07, 6.8
- Can be used as a closed-joint covering with MorTec[®] SOFT

Impact sound improvement

Up to +32 dB

Load capacity

Permissible surface load up to 5 kN/m² (DIN-EN 1991-1-1/NA:2010-12, category C5)

System accessories

- TerraMaxx[®] RS aluminum support profile
- TerraMaxx[®] RS longitudinal connector set
- TerraMaxx[®] RS T-joint connector for 90° connection of two support profiles
- TerraMaxx[®] RS joint connector for flexible connection of two support profiles, infinitely adjustable from 90° to 270°
- TerraMaxx[®] RS stainless steel screw with flange for screwing all TerraMaxx[®] RS connectors into the support profile
- TerraMaxx[®] RS XS/TS self-adhesive joint cross
- MorTec[®] SOFT special joint filler with fine grain structure
- TerraMaxx[®] TSL/PL, dry pedestal bearing/slab bearing as support for the support profiles
- TerraMaxx[®] TSL-Pad as a sliding, separating and protective layer on waterproofing
- TerraMaxx[®] RS shear protection in combination with DiProtec[®] FIX-MSP for point-by-point fixation of outer covering rows with open covering joints

Delivery form

TerraMaxx[®] RS, support profile
(L x W x H) = 2,500 x 50 x 30 mm

Notes on transportation and storage

No special requirements for support profiles and connectors.
Protect other system accessories from UV radiation and weathering.

Substrates

Bonded substrates

Concrete, screed

Unbound substrates

Must be load-bearing, firm and sufficiently compacted

Steel/wood beam constructions

Must be fitted with a breakthrough-proof cover on the top side

Insulations

- Pressure-resistant thermal insulation, applied to the substrate without cavities and as non-springy or compressible as possible
- Pressure load capacity ≥ 120 kPa (if the generally recognized rules of technology require a higher value, this applies)

Sealings

- All types of waterproofing in accordance with DIN 18531, parts 1 to 5 are permitted
- DiProtec® SDB plastic quick sealing membrane
- DiProtec® KSK bitumen cold self-adhesive membrane
- Protective layers in accordance with DIN 18531-2:2017-07, 5.6, and separating layers in accordance with DIN 18531-2:2017-07, 5.4 may be required on waterproofing levels. TerraMaxx® TSL Pads, aluminum-laminated rubber shot pads on the underside have a 4-in-1 function as a sliding, separating and protective layer, including impact sound improvement and thus meet this requirement.
- On rough waterproofing surfaces such as sanded bitumen sheets, it is also advisable to lay a sliding and separating layer over the entire surface under the TerraMaxx® TSL pad in order to improve water drainage and reduce standing water. AquaDrain® TR reinforced separation layer fulfills these requirements.

Open/free edge areas

"Point bearing constructions, in particular pedestal bearing constructions, are to be provided with an edge framing as shear protection, as horizontal forces cannot be safely absorbed by point bearings." (Source: Fact sheet 002, "Point bearing construction", QSP e. V.)

These requirements are also met:

- Point-by-point fixing of the outer rows of decking on the TerraMaxx® RS shear protection
- Jointing with the special joint filler MorTec® SOFT

Underground gradient

Bonded substrates

- The substrate gradient should be ≥ 1.0 %.
- Slopes > 2.5 % may require on-site slip protection, especially in free and open edge areas.
- Gradients < 1 % favor standing water on the substrate level:
 - They have higher requirements for evenness in order to eliminate counter-slopes.
 - Water puddle depths are bridged at the corresponding height of the support profile and the support.
- Barrier-free door connections and transitions must always be designed with a minimum gradient of > 1.0 %.

Unbound substrates

Substrates capable of infiltration do not necessarily require a slope.

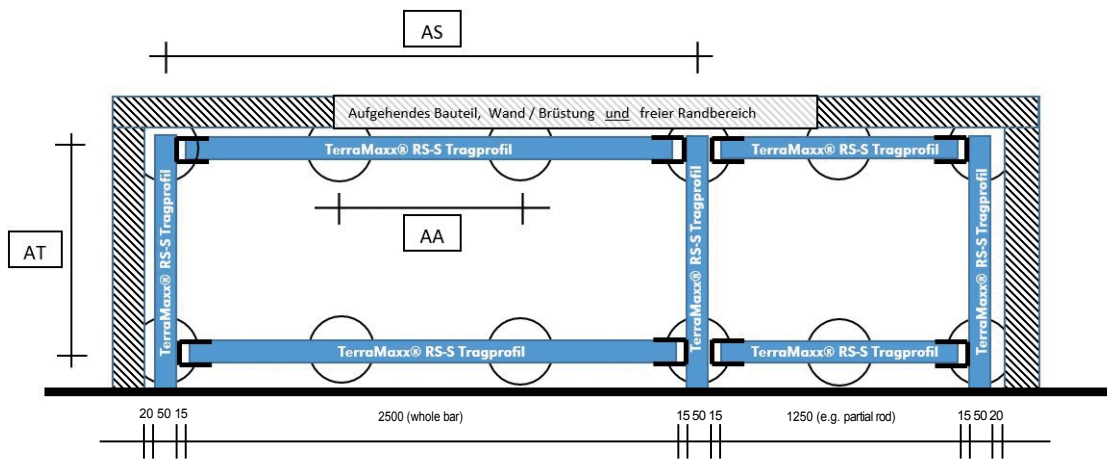
Processing instructions

General information

- The minimum distance between the TerraMaxx® RS frame system and rising components, covering edges etc. is at least 20 mm.
- The maximum side length of a continuous frame construction is 10 m. Larger areas are formed from several independent frame constructions.
- The net construction height, base support profile to base covering slab, is 37 mm (30 mm TerraMaxx® RS support profile + 7 mm RS joint cross).
- Each frame joint formed with TerraMaxx® RS T-joint connectors or with joint connectors must be supported with a bearing (e.g. TerraMaxx® TSL dry pedestal bearing).
- The frame construction is formed from TerraMaxx® RS support profiles, which are arranged according to the system drawing. As a rule, the beams (AT) run in the direction in which the flooring is laid and the stiffeners (AS) run at right angles to them.

Further information can be found in the installation instructions.

System drawing



For slab coverings	Load up to 2 kN/m ² surface load	Load > 2 to 5 kN/m ² surface load
Standard center distance support profile AT	600 mm	600 mm
Max. Center distance Bracing AS	2580 mm	2580 mm
Max. Center distance support AA (e.g. TerraMaxx® TSL)	900 mm	600 mm

The distance AT depends on the flooring format and the flooring manufacturer's specifications.

Edge profiles on free pavement edges

Type and application can be found in the corresponding product links.

Drain end profiles with existing waterproofing

- ProFin® KL60, KL80, KL-H 61/92, KL-H 92/150

Drain and eaves end profiles with waterproofing still to be installed

- ProFin® DP11, 17, 21 base profiles in combination with ProFin® BL24, 49, 69 clip-on covers
- ProFin® DP30

Drainage gratings for low or barrier-free door connections

- AquaDrain® FLEX
- AquaDrain® BF-FLEX
- AquaDrain® VARIO
- AquaDrain® KR/KR-U box channel system
- AquaDrain® DR drain grates

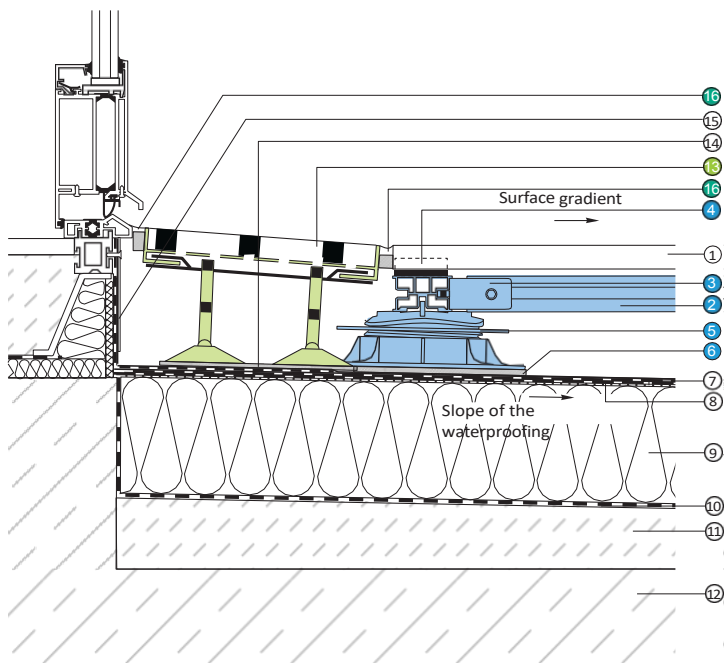


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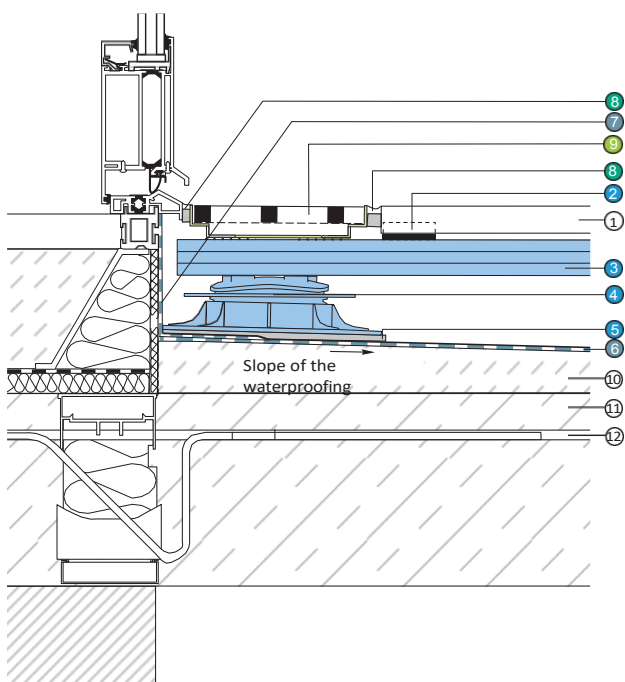


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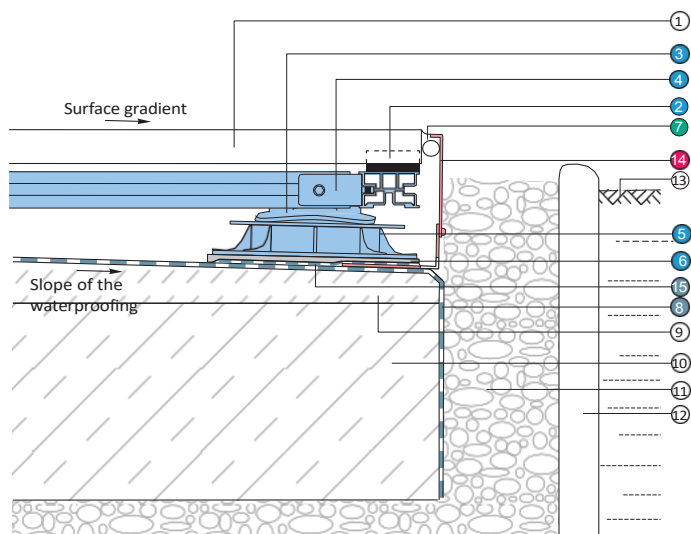
Planning details



- Barrier-free door connection
in accordance with DIN 18 040 with
diagonally adjustable drain grate that can
be cut to length
- Slab covering on TerraMaxx® RS
aluminum frame system
- 1 Covering (ceramic elements, concrete/natural stone
- recommended by the manufacturer for elevated
construction)
 - 2 TerraMaxx® RS aluminum frame system
 - 3 TerraMaxx® RS T-joint connector
 - 4 AquaDrain® FF Fugenfix joint cross on
TerraMaxx® RS adhesive pad
 - 5 TerraMaxx® TSL dry pedestal support
 - 6 TerraMaxx® TSL Pad as a sliding, separating and protective
layer on waterproofing
 - 7 Waterproofing according to DIN 18531,
here: Bitumen welding sheet, two-ply
 - 8 If required: Vapor pressure equalization layer
 - 9 Pressure-resistant thermal insulation,
applied to the substrate without cavities.
Pressure load capacity ≥ 120 kPa
(if the recognized rules of technology require a
higher value, this applies)
 - 10 Vapor barrier
 - 11 Sloping screed
 - 12 Reinforced concrete ceiling
 - 13 AquaDrain® BF-FLEX drainage grating, height-adjustable
 - 14 Load-distributing intermediate plate
 - 15 Wall connection with composite sheet, screwed on
 - 16 Elastic joint made of neutral cross-linking
sealant, e.g. MorTec® SOFT,
on AquaDrain® SL waterstop



- Barrier-free door connection
to DIN 18 040 with AquaDrain® VARIO box
channel
- Slab covering on TerraMaxx® RS
Aluminum frame system
- 1 Ceramic/natural/concrete paving
 - 2 TerraMaxx® RS XS/TS self-adhesive joint
cross
 - 3 TerraMaxx® RS aluminum frame
system
 - 4 TerraMaxx® TSL dry pedestal bearings
 - 5 TerraMaxx® TSL Pad guarantees the protection
of the waterproofing required by the DIN
18531 standard and replaces the separating
layer required by the standard
 - 6 Di Protec® SDB plastic quick sealing membrane
 - 7 Di Protec® AB-K sealing tape, plastic
 - 8 Elastic joint made of neutral cross-linking
sealant, e.g. MorTec® SOFT, on AquaDrain® SL
joint tape
 - 9 AquaDrain® VARIO box channel with dirt
grid
 - 10 Gradient bonded screed
 - 11 Balcony cantilever slab
 - 12 Isokorb



Edge finish

Slab covering on TerraMaxx® RS aluminum frame system

- 1 Covering (ceramic elements, concrete/natural stone - recommended by the manufacturer for elevated construction)
- 2 AquaDrain® FF Fugenfix joint cross on TerraMaxx® RS adhesive pad
- 3 TerraMaxx® RS aluminum frame system
- 4 TerraMaxx® RS T-joint connector
- 5 TerraMaxx® PL-H plate support
- 6 TerraMaxx® TSL Pad as a sliding, separating and protective layer on waterproofing
- 7 Elastic joint made of neutral cross-linking sealant, z. e.g. MorTec® SOFT, on round cord
- 8 DiProtect® KSK bitumen cold self-adhesive membrane, alternatively: DiProtect® SDB plastic quick-drying membrane
- 9 Gradient bonded screed
- 10 Reinforced concrete slab in contact with the ground
- 11 Compacted, load-bearing, seepable substructure (e.g. mineral, gravel, etc.)
- 12 Curbstone
- 13 Soil with turf
- 14 Profin® KL-H 92/150, height-adjustable drainage gravel strip, fixed with e.g. DiProtect® KSK-AB sealing tape
- 15 DiProtect® KSK-AB sealing tape

System accessories

<p>TerraMaxx® RS support profile (50 x 30 mm, W x H)</p> 	<p>TerraMaxx® RS longitudinal connector set</p> 	<p>TerraMaxx® RS T-joint connector</p> 	<p>TerraMaxx® RS joint connector</p> 
<p>TerraMaxx® RS stainless steel screw with flange</p> 	<p>TerraMaxx® RS self-adhesive joint cross, XS and TS version (joint web height = 10 mm, joint web width = 3 mm; floor thickness = 7 mm)</p> 	<p>MorTec® SOFT, elastic joint filler</p> 	<p>TerraMaxx® TSL</p> 
<p>TerraMaxx® PL</p> 	<p>TerraMaxx® TSL Pad (232 x 142 x 6 mm)</p> 	<p>DiProtec® FIX-MSP sealing adhesive MS Polymer</p> 	<p>TerraMaxx® RS thrust-resisting device</p> 

Material

- TerraMaxx® RS support profile: aluminum
- TerraMaxx® RS longitudinal connector: Stainless steel, material no. 1.4301
- TerraMaxx® RS T-joint connector: stainless steel, material no. 1.4301
- TerraMaxx® RS joint connector: stainless steel, material no. 1.4301
- TerraMaxx® RS stainless steel screw: material no. 1.4301
- TerraMaxx® RS joint cross: plastic, anthracite
- TerraMaxx® RS shear protection, aluminum

You can find further components for the complete systems that you can implement with TerraMaxx® RS by scanning the QR CODE or in the current price list.



The information contained in this technical data sheet is based on our careful investigations and our experience. The many substances and materials used in the overall construction as well as the different building site and processing conditions cannot be checked or influenced by us in detail. Specialist knowledge, correct professional judgment and the correct use of products are the basis for permanently reliable construction work. In case of doubt, you should carry out your own tests or seek technical application advice. In addition to the information in this technical data sheet, the relevant rules and regulations of the responsible organizations and trade associations as well as the respective national standards for the work to be carried out must be observed. With the publication of this technical data sheet, all previous data sheets lose their validity.

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The currently valid versions of the technical data sheets and the current installation instructions can be found at <https://www.gutjahr.com/downloads/>



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