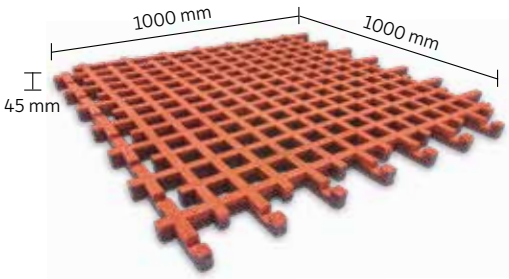
Terrasoft®

Lawn grating EPDM 45 mm



The Terrasoft lawn grating slab is one of the most significant inventions in fall protection systems. Planners appreciate the benefits of the green alternative, such as their flexible use in hilly areas or their handicapped-accessible properties. With a thickness of 45 mm and the associated drop height of 1.5 m it covers the fall protection requirements under a lot of playground equipment. The positive connection of the individual elements as well as the small lawn chambers prevent the topsoil from being eroded and thus guarantees permanent growth with grass on the surface.

ADVANTAGES

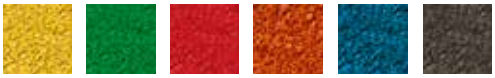
- Minimisation of risk of injuries and breakages
- patented, positive connection
- Non-slip even in wet conditions
- permeable to water / fast-drying
- low maintenance

APPLICATION

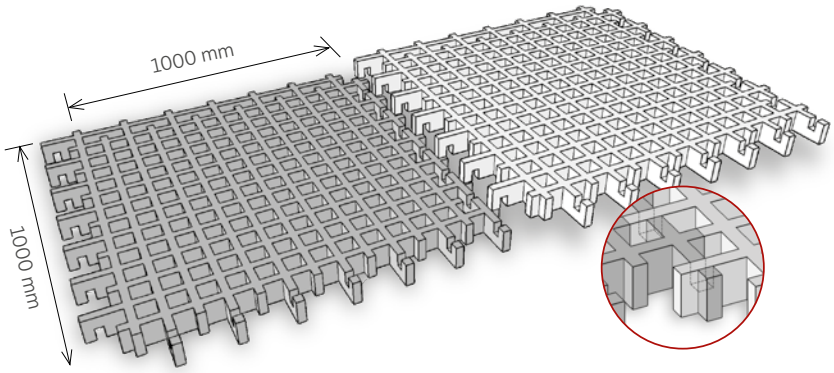
The Terrasoft Lawn Grating Slabs are the universal genius for use in outdoor areas, permanent greening of the area and the associated fixing of the substrate. They are used on flat roofs, under playground equipment or in recreational areas.

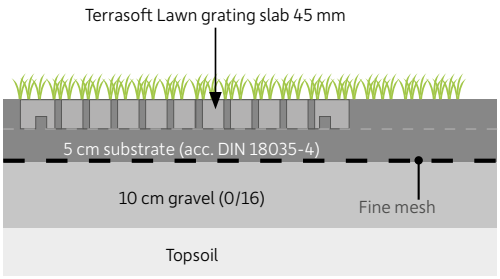
SEE OUR VIDEO

Colours



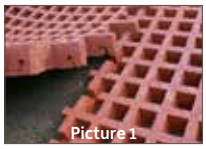
-31x signal-yellow | -32x signal-green | -34x signalred | -30x orange | -23x blue | -26x black

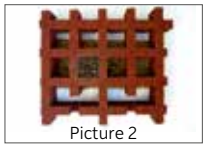




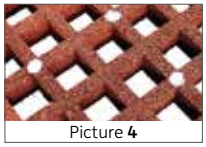
The Terrasoft Lawn Grating Slabs interlock with one another in a form-fitting manner.
Laying in half-staggered offset formation offer a sustained connection.

INSTALLATION INSTRUCTIONS


Picture 1


Picture 2

Picture 3


Picture **4**

Preparation: Remove the top soil and smooth and compact the in-situ surface. Establish a 10cm-thick gravel (0/16) base layer, smooth and compact it. To ensure adequate water permeability, the share of fines (grain size < 0.063mm) in the construction material mix should not exceed approx. 3wt.% upon delivery, approx. 5wt.% after having been installed. The base layer must be carried out professionally, it must be stable, level, true to line and level and have sufficient load-bearing capacity. To ensure an even underlay, unevenness exceeding 1cm is not permitted.

ATTENTION: Compacting should involve approx. 45 megapascal in every process step.

Laying the impact-protection covering:

Pay attention to a stable edging. Place a weed barrier fabric (landscape fabric) on the gravel base layer and apply a 5cm-thick layer of substrate* with a grain size of 0–4 (Ø in mm). Before the installation of the slabs, compact the surface according to the appropriate height. Ensure a level surface true to line and level. The installation moisture content of the substrate should be < 70 AC. Install the lawn-grating slabs professionally in half-staggered offset formation. When laying, pay attention to the top and underside of the tiles (underside has small dots, picture 4, marking exemplary). Fill the slabs with substrate and sweep (pictures 2 & 3). **Ensure to fill the lawn chambers completely.** Sow grass seeds. Irrigate the area regularly and cordon it off until the lawn has fully grown.

MAINTENANCE INSTRUCTIONS

Terrasoft flooring systems are non-hazardous in terms of the norm. The operator has to ensure a regular inspection of the area. Please observe the maintenance instructions aswell as the care instructions.

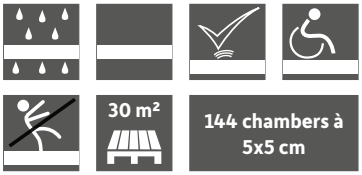
Visual inspection: weekly visual inspection to detect obvious hazards

Operational inspection: quarterly wear control to check the position and durability of the mounting and connector, elimination of possible tripping points, replacement of the slabs in case of damage or surface abrasion

Main inspection: annual intensive verification of the positional safety and operational safety of the fall protection, control of the strength of the connectors used and the enclosure elements. Retesting has shown that impact protection performace increases during lifetime. Nevertheless, depending on exposure, the compartments of the slab should be checked and potentially refillded with lawn substrate in the course of time.

For inspection of equipment foundations, the slabs can be lifted. Alternatively, foundations can be covered with terrasoft impact protection slabs.

Specifications



*** Lawn substrate acc. to DIN18035-4**
Vegetation-specific properties

Granulometry: (Quota of the total mass in %)	
Elutriable components	8–20
Fine/middle-grained gravel	5–20

Volume weight (t/m³)	
Condition as received DIN EN 1097-3	1,10–1,30
with max. water capacity of compacted discharge coefficient C	1,65–1,95

Water/air supply compressed	
Maximum water capacity	25–40 Vol.%
Water permeability mod. K_f	1–3 mm/min
ph-value	6,8–7,5
Salt content	30–100 mg/100 g

Composition
product composition of natural origin (igneous stone composite) made up of augite, olivine, magnetite, limonite, Bionit, different types of clay, enriched with compost

08.10.2025

SURFACE ADHESION

The surface adhesion is mainly for the fixation of solid rubber products.

Preparation of the subsoil

The concrete foundation must be rough, clean and dry. Please pay attention that the glueing areas are free of oil, greases and other residues e.g. colours, rubber abrasion, cement mist etc.

The surface and environment temperature must be at least 8 °C resp. at least 3 °C above the dew point temperature. Air temperature not higher than 80%.

Adhesion priming

Fill adhesion priming in another pot and apply thinly on the subsoil by rolling or painting.

If necessary, subsequently smooth put to avoid puddles.

The drying depends on the air humidity.

With a high air humidity the drying is delayed. In the drying time, a direct water admission should be avoided.

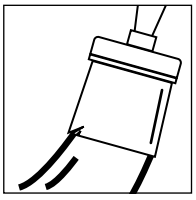
Under certain circumstances, it may be necessary to grind the dried adhesion priming. The grinding dust should be removed thoroughly.

Glueing process

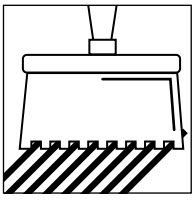
Admit 1.5 kg hardener to 10 kg glueing and mix it at a low rotative speed achieving a mass free of mist.

When glueing rubber on concrete, the glueing mass should be applied and compressed on the concrete surface with a toothed spatula (4 mm).

Please pay attention that the area is not stepped on for 48 hours.



adhesion priming



glueing process

JOINT FILLER

The joint filler is applied when already laid elements should be glued together upon the impact edges. This way, it is not possible to take away single elements.

Processing

With the supplied plastic nozzle, an exact dosage is achieved by simply pressing the middle of the bottle.

Please pay attention that the joint filler remains liquid during the processing period. The joint should not be larger than 3 mm.

Please pay attention that the surface is not stepped on for 48 hours.

CARE INSTRUCTIONS

A regular care of the layed slabs serves the security and increases its attractive appearance and the life span.

- The dust on Terrasoft areas can be swept off with a broom with hard bristles.
- Coloured surfaces can be subsequently refined through application of a special spray coating.
- Fouling with moss or grass in the joint area can lead to the panels being pushed apart or pushed up. Be sure to remove such growth early.
- Decolourations of the surface can occur through durable remaining ram moisture on the substrates as well as diverse plants in the direct surroundings of the slabs.
- External influences can have an effect on the condition of the surfaces. Weather, UV radiation, dust from the air, sites near the coast with high salinity or sand areas near the ímpact protection slabs can have a negative effect on lack of care.
- In cases of abrasion slabs have to be replaced

10. Januar 2025

IMPACT RESISTANT PLAYGROUND SURFACE

Correct implementation of European Standard EN 1176/1177

Playground surfacing systems are required to comply with product safety legislation.

Adherence to the safety requirements contained in this legislation must be verified in the form of a certificate from an approved test body following successful completion of testing. We have provided a simplified and summarized explanation of how to implement this standard for planners and decision makers who decide in favour of surfacing systems.

It may be assumed that the most serious of all probable accident risks occurring in children's playgrounds is that of head injuries. Consequently, priority has been assigned to the creation of a criterion to evaluate the effiency of floor surfacing systems which minimize this injury potential.

As a consequence, not only test procedures but also criteria for the choice of playground floors are determined which represent the upper limit of capacity to avoid head injuries, applicable for play equipment installed in accordance with EN 1176.

As you have chosen in favour of impact protection systems, you will be aware that six individual certified height measurements exist for different fall heights from 3 m.

The relevant generally applicable certificate is provided overleaf. After selecting the right slab, what is important is the surface area from which use of the playground apparatus begins and which encompasses at least the impact area.

The impact area is the surface on which a user can land after dropping through the falling space.

The following points must be taken into consideration when defining this area:

Up to a free fall height (free fall height=pedestal height, upper rung or upper handle position for hanging apparatus) of 1,5m, an additional falling space length of at least 1.5m must be provided around the apparatus.

With a free fall height of more than 1.5 m the falling space to be protected with the relevant drop protection measures must be calculated as follows:

$$\text{Required minimum falling space length:} \quad \frac{\text{free fall height} + 0{,}75\ \text{m}}{1{,}5\ \text{m}}$$

TECHNICAL INSPECTION AND MAINTENANCE

Controlling and Maintenance

In order to ensure the safety of the product in a responsible way, the plates installed need to be inspected and maintained in regular intervals. Due to their material quality Terrasoft impact-absorbing plates are designed for a long useful life with short maintenance intervals. Even so, the clear guidelines laid down in DIN EN 1176/1177 are also binding for Terrasoft elastic/safety slabs. To ensure the safety of the impact protection, the installed slabs require regular inspection and maintenance. Due to their high quality, Terrasoft impact protection slabs are designed for a long service life. The clear requirements of DIN EN 1176/1177 are binding for Terrasoft impact protection slabs. The external influence and impact on durability of impact protection qualities is not exactly forseeable. External influences can be high exposure or high-risk locations regarding vandalism. Furthermore, weather conditions, UV radiation, high frequentation areas (i.e. under swings or seesaws), unregular maintenance etc. can influence the impact protection qualities. Dust loading of the air, locations near the coast with high salt concentration or sand areas nearby can have a negative influence if maintenance is insufficient. With regular maintenance and care, Terrasoft system's impact protection can be expected for up to 10 years. This outperforms the durableness of all alternative impact protection systems by far, especially as the costs for maintenance and securing of impact protection are far lower compared to sand, bark mulch or wood chips.

Warning!

Maintenance intervals need to be shortened with high frequentation of the area, high risks of vandalism, extreme weather conditions or locations near the coast. This applies to different locations on play and recreation areas. High frequentation on the impact protection areas i.e. by teenagers, in entrance areas or dirt require respective maintenance intervals. In cases of abrasion i.e. with a punctual frequentation like under some playground equipment, slabs have to be replaced. For replacement or repairing, only spare parts of the manufacturer are to be used. Checking of maintenance intervals and controlling of professional execution of installation and repair works are duty of the operator, who generally is responsible for maintenance. During installation and maintenance work, the area hast to be visibly closed for children.

It has to be ensured that the drainage system constantly works. Keep yourself informed about the resulting requirements and duties, like they are at least partly specified in EN 1176/1177.

10. Januar 2025