

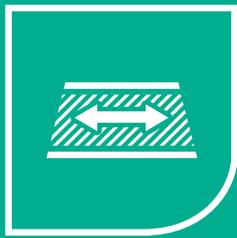


BEGRID SL WAB

Paving System

KEY ADVANTAGES

at a glance



→ Ecological paving system for unsealed settlement and traffic areas



→ Flexible combination of grass, paved or mineral surface finishes



→ Quick and simple installation



→ Climate-neutral production from 100% recycled post-consumer plastic

BEGRID SL WAB

Paving System



The increased sealing of natural surfaces is a leading cause of flooding, flash-flooding and other natural disasters. Construction work is intensifying the loss of natural soil as resources are sealed under roads, traffic areas and buildings, meaning rainwater is unable to drain away properly, and consequently leads to flooding.

The sustainable BEGRID SL WAB Paving System sets new standards in ecological paving solutions. The grid structures, which can be finished with grass, stones and minerals, are interconnected to form one entire surface. The result is a largely unsealed surface that absorbs heavy rainfall, improves the urban climate and reduces the impact on our natural environment.

The BEGRID SL WAB Paving System thus contributes actively to the concept of innovative sponge city construction.

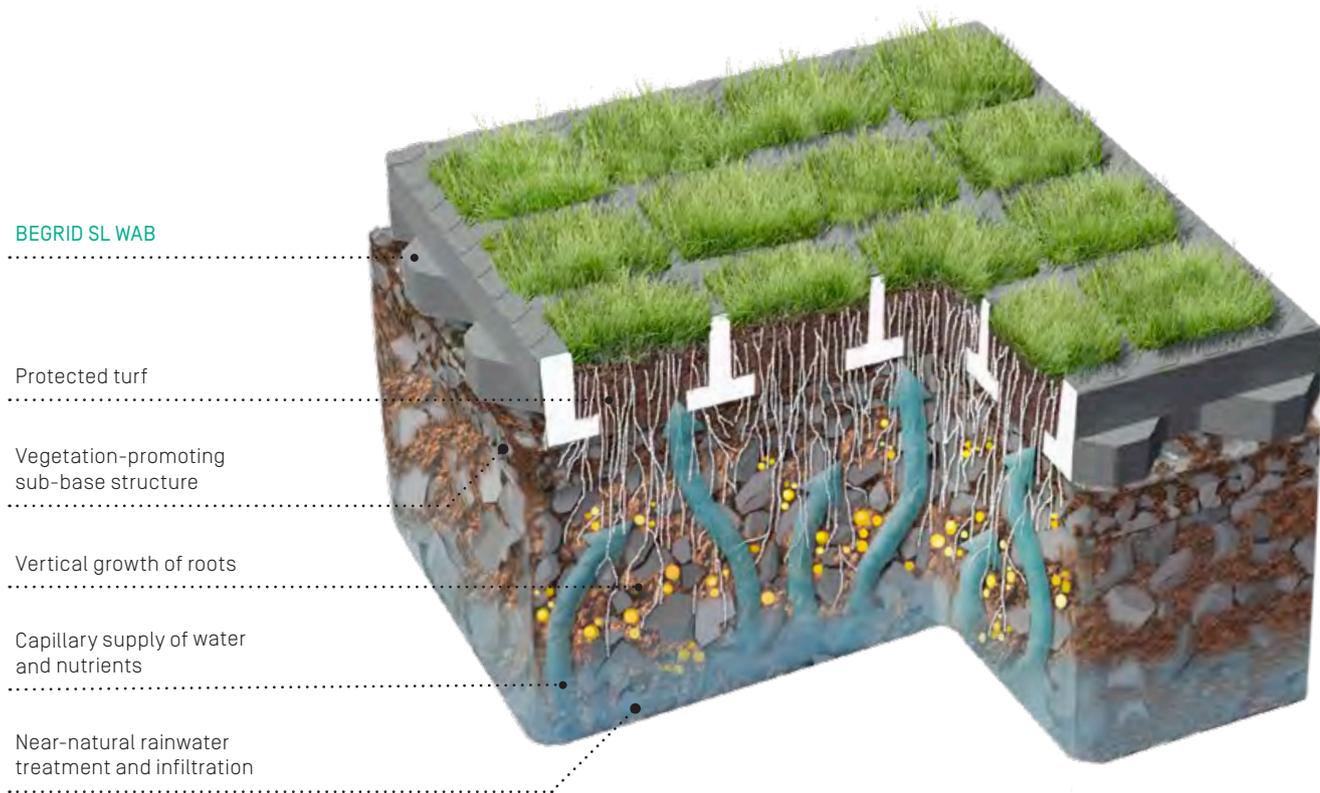
PRODUCT DETAILS

and properties

BEGRID SL WAB is an environmentally-compatible plastic grid Paving System with a unique connecting system that permits the free-flow of water in (traffic) areas.

Made from 100% recycled post-consumer plastic, BEGRID SL WAB helps create a closed material cycle. The grids have an Environmental Product Declaration (EPD), are TÜV-tested and made in Germany in a climate and environmentally friendly manner.





The system is extremely resilient and offers so much choice in terms of the surface finish: BEGRID SL WAB can be finished with grass, stones and loose paving materials.

Due to its unique material properties and the reinforced product design, BEGRID SL WAB can be used for sub-base load-bearing capabilities above 10 MPa and is also suitable for HGV traffic (SLW60). The system can be installed with a shallow excavation depth and reduced superstructures, thereby helping to avoid the costly replacement of soil. Further, rainwater runs directly into local water courses, which, besides eliminating the need for drainage, optimises overall waste water costs.

By combining different types of paving and fillings, it is possible to design various patterns, car park markings, lanes or pathways quickly and easily.

SYSTEM VARIANTS

BEGRID SL WAB Paving System



GREEN

Unsealed and green traffic areas

The vegetation-promoting structure enables the vertical growth of roots and an ideal supply of water and nutrients for a lush green finish.

The turf is protected during the growth phase, while substance inputs are retained and degraded. This creates resilient green spaces for sustainable rainwater management.

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- Designed for filling with sub-base
 - Can be finished with standard green cover mixtures
 - Suitable for HGV traffic
 - Also available with a grass finish ex works (BEGRID SL WAB DIRECT GREEN)



MINERAL

Unsealed and even crushed rock surfaces

BEGRID SL WAB MINERAL ensures the evenness of the surface course, while providing a non-slip and durable surface made of loose paving materials at a great price. The surfaces paved with BEGRID SL WAB MINERAL are suitable for HGV traffic.

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- Filling with loose paving materials, e.g. crushed rock
 - Cost-efficient paving
 - Suitable for HGV traffic

BEGRID SL WAB is available in four combinable versions that offer no shortage of choice when it comes to designing (traffic) areas.



STONE

Resilient traffic areas with a high level of infiltration

Open joints and cavities create a permanently permeable surface course. As a large water reservoir, the BEGRID SL WAB surface allows high intensity rainwater to run directly into local water courses.

The paving stones designed specifically for BEGRID SL WAB enable a wide range of design options. By combining stone and grass finishes, it is possible to design, e.g., car park markings or enhance the load-bearing capability of lanes to also enable the intensive use of grassed car parks.

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- Paving stones available in a range of colours
 - Suitable for HGV traffic
 - Also available with a stone finish ex works
[BEGRID SL WAB DIRECT STONE]



BASIC

BEGRID SL WAB as a supporting structure

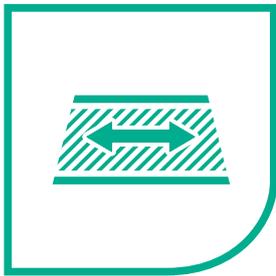
When used as a supporting structure, BEGRID SL WAB is ideal for constructing water-bound pathway surfaces and reducing costs for their maintenance and repair. The plastic grid increases the load-bearing capability of trafficked routes due to its extremely low structural height, prevents the formation of potholes and avoids softening of the surface course by enhancing the rate of infiltration.

BEGRID SL WAB is also ideal as a supporting structure beneath paved and slabbed surfaces and prevents the surface course from settling.

-
- Increases the load-bearing capability of routes
 - Reduces maintenance and repair demands

FUNKTIONEN

BEGRID SL WAB Paving System



Reinforcement

BEGRID SL WAB combines base course, pavement and infiltration system in one system. The pressure and deformation-resistant grids are connected by an interlocking structure. This creates a superficial load distribution – similar to the principle of a snowshoe. The demands on the load-bearing capability of the subgrade are thus demonstrably lowered. The structural height and the construction time and costs are reduced significantly.

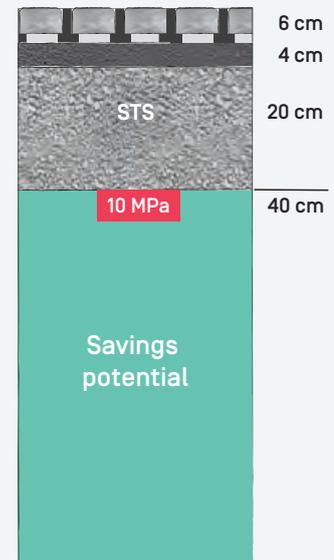
Potential savings

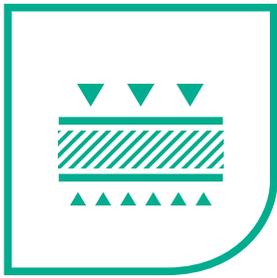
Marginal excavation work and ballast material required when using BEGRID SL WAB.

RStO load class Bk 0.3



BEGRID SL WAB STONE





Drainage

BEGRID SL WAB has open joints and cavities which, depending on the design of the surface finish, ensure an extremely high level of water permeability. The level of permeability is up to thousands of times higher than the permeability of the surface course required in the RStO guidelines for comparable construction classes. Additional drainage measures as well as waste water costs are not applicable. Due to the good surface load distribution of the interlocking system, the natural rate of infiltration of the soil is preserved and coarsely porous gravel mixtures can be used as the finish. This combines the function of a base course with that of a drain trench which stores water. The BEGRID SL WAB construction method "3.5 PLUS" (see page 11) enables a water storage capacity of more than 100 l/m². Storm rainfall can thus be temporarily stored in poorly permeable soils and infiltrate down into the subgrade with a time delay.



Groundwater protection

For the grass-finished BEGRID SL WAB GREEN system, a special sub-base structure is used that forms a revitalised soil zone. Besides improving the vegetation characteristics, this also helps to protect the groundwater. Each gram of soil contains billions of micro-organisms, whose task is to filter, clean and allow the soil to "breathe". Pollutants in the infiltrating rainwater are naturally degraded and the fundamental requirements of sponge city construction are met.

APPLICATIONS

BEGRID SL WAB Paving System

The BEGRID SL WAB Paving System is divided into grass and paved finishes and varies in structure depending on the load categories and factors.

There are three tried-and-tested construction methods that can be used to keep the structural height of each surface as low as possible. At the same time, an improved green finish and rate of infiltration are achieved through the special system superstructures.

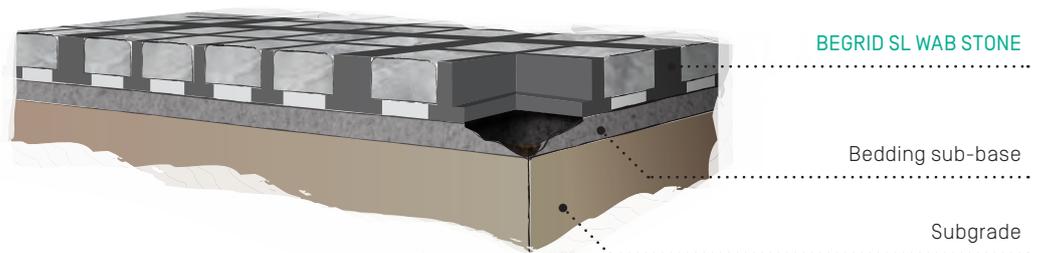
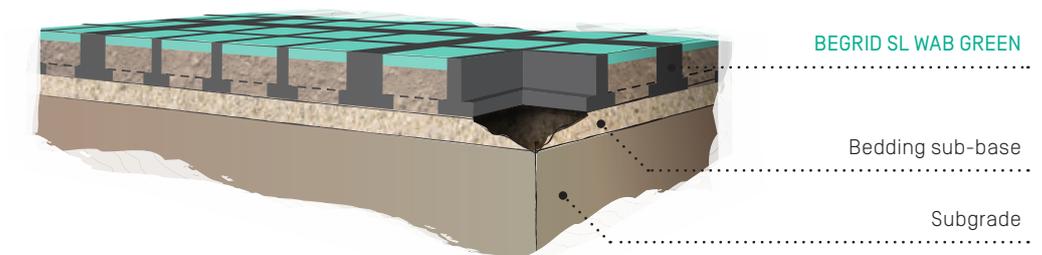
The load transfer is demonstrably equivalent to the load transfer of conventional construction methods.

Construction method

“3.5” – surfaces for cars

(up to 3.5 t total weight)

Pathways and cycle routes, car parks, car access roads



Construction method “3.5 PLUS” – surfaces for cars and occasional HGV traffic (load class BK 0.3/BKL V/VI according to RSt0)

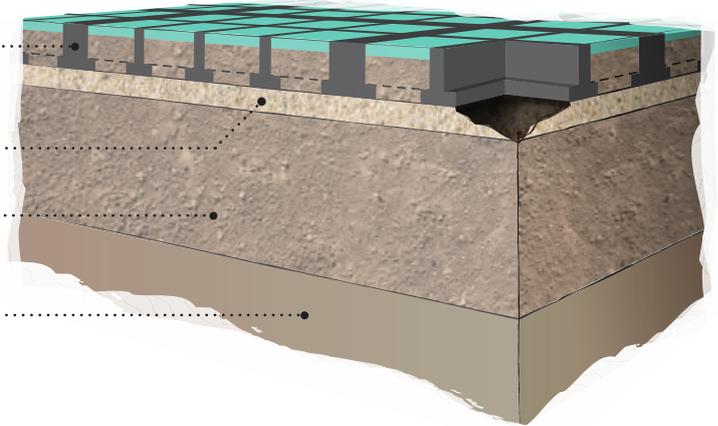
Public parking spaces and access roads, emergency vehicle access roads and by-pass routes, farmyard paving, private roads, farm tracks

BEGRID SL WAB GREEN

Bedding sub-base

Vegetation base course

Subgrade

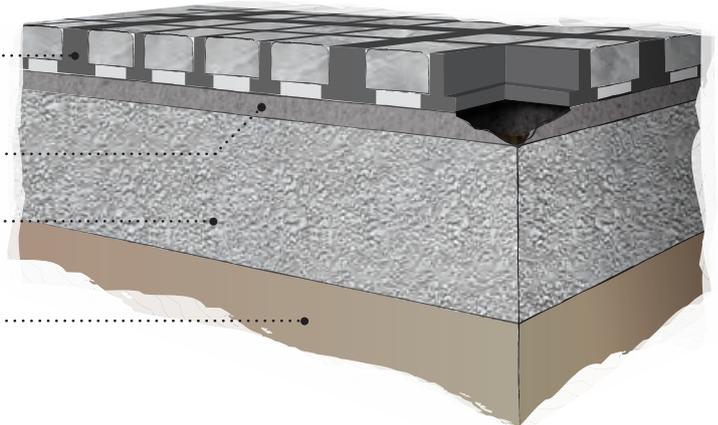


BEGRID SL WAB STONE

Bedding sub-base

Vegetation base course

Subgrade

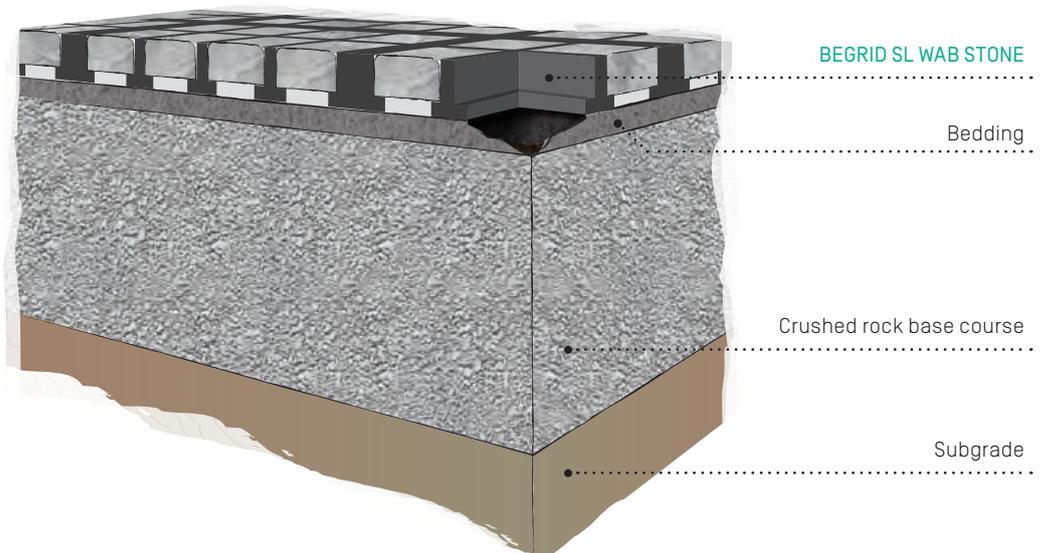
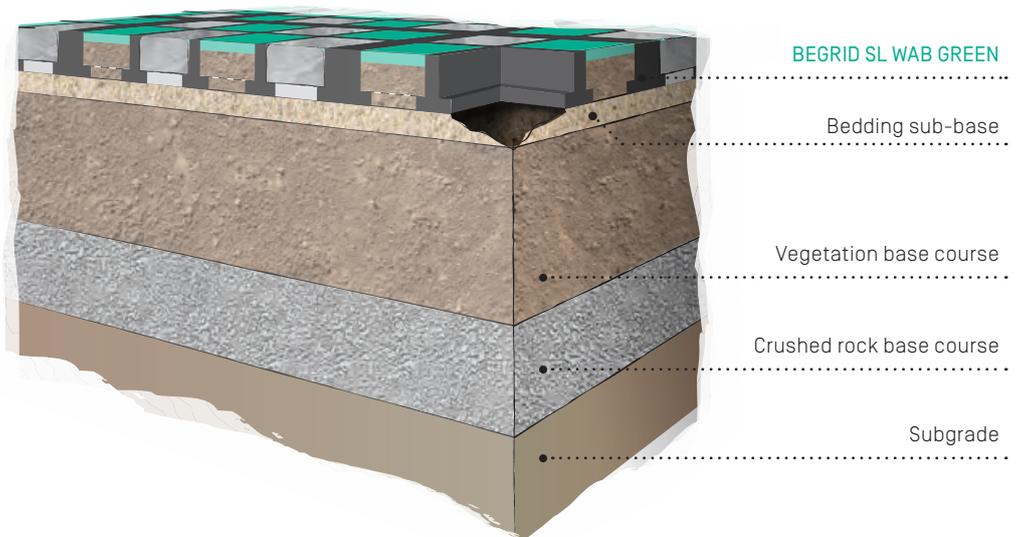




**Construction method
"40" – HGV traffic
up to 40 t**

[load class BK 1.8/BKL III
according to RStO]

Residential roads,
HGV and bus parking
bays, commercial
warehouses and
access routes, service
roads at motorway
service stations



Applications matrix at a glance

We are happy to supply current data sheets, specifications, certificates and technical verifications on request.

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BEGRID SL WAB Paving System	Construction method "3.5"	Construction method "3.5 PLUS"	Construction method "40"
Pathways and cycle routes	●	○	○
Permanent car parks	●	○	○
Car access roads	●	○	○
Public parking spaces		●	○
Emergency vehicle access roads		●	○
Farm tracks		●	○
Private roads		●	●
Event spaces		●	●
Residential roads			●
HGV and bus parking bays			●
Logistics centres and warehouses			●

● suitable ○ conditionally suitable (project-specific assessment necessary)

APPLICATION

in practice

BEGRID SL WAB covers a wide range of applications and is suitable for almost all loads resulting from cars or HGVs: e.g. car parks, emergency vehicle access roads and private roads, driveways and warehouses, but also camp sites, event spaces, pathways and much more.





INSTALLATION INSTRUCTIONS

BEGRID SL WAB Paving System



To be considered:

- To achieve the greatest possible stability and safety, installation is usually carried out at right angles to the direction of travel
- When installing, care must be taken to ensure firm edge restraints
- BEGRID SL WAB must be installed in a bond pattern that is suitable for the application and anticipated traffic loads (see Bond patterns) – a **cross-joint bond pattern is not suitable**
- The cutting of grids should be avoided whenever possible
- To ensure all the advantages and functions, BEGRID SL WAB STONE paved surfaces **should not be sanded down**
- When filling the grid elements, care must be taken to ensure proper underfilling: make sure the upper fill level is always below the top edge of the grid

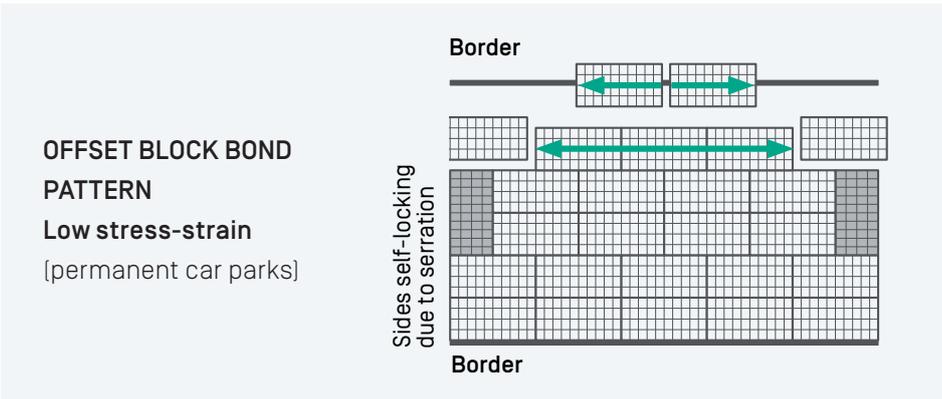
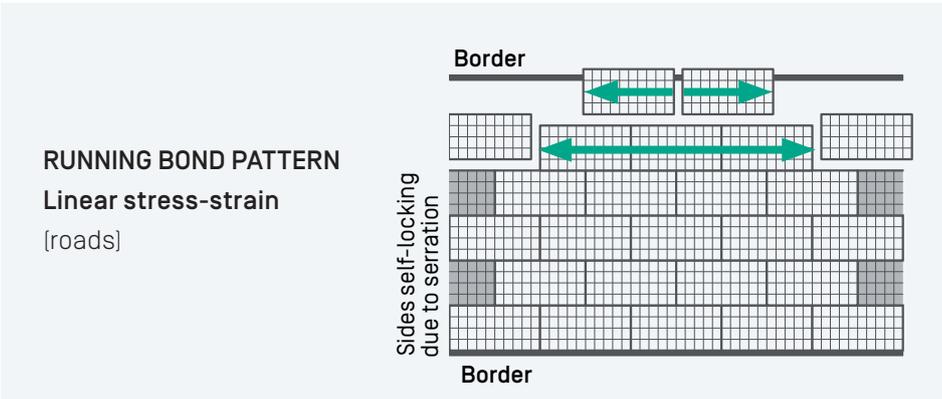
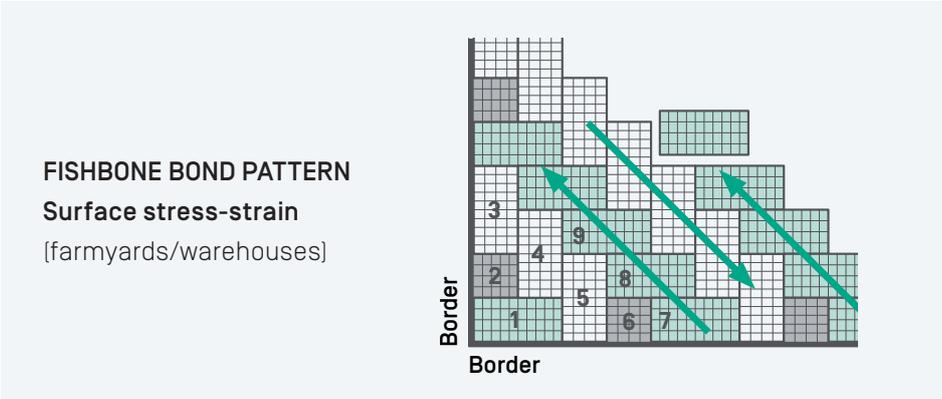
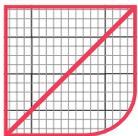




Bond patterns

Varying bond patterns are recommended depending on the stress-strain placed on the surface.

Important: BEGRID SL WAB must not be installed in a cross-joint bond pattern.



SUSTAINABILITY

and potential savings



- **Contributes to sponge city construction**

The concept of sponge city construction pursues the goal of creating living, urban structures for more green spaces. They absorb rainwater and release the moisture again during periods of dry weather. The urban climate is improved – through corresponding cooling and plants binding CO₂ and particulate matter. BEGRID SL WAB not only creates green spaces but also protects and integrates existing trees. Further, natural resources are conserved and biodiversity promoted – in and above the soil.

- **Protects soil life**

BEGRID SL WAB protects the soil from compaction and maintains the revitalised soil layer

- **Cleans and filters rainwater**

- **Contributes to groundwater protection and regeneration**

- **Helps save natural resources**

The significantly lower structural height of BEGRID SL WAB surfaces helps save large amounts of precious natural resources, such as gravel and crushed rock, compared to conventional construction methods. The resulting reduction in construction site transports also limits CO₂ emissions.

- **Ensures sustainable production**

BEGRID SL WAB is made of 100% recycled post-consumer plastic [Green Dot symbol] in Germany

ADVANTAGES

BEGRID SL WAB Paving System

- Solid plastic paving system with innovative connecting system
- Wide range of combinations possible
- Good rate of surface infiltration
- Ideal vegetation characteristics for resilient grass finishes
- Suitable for use on subgrades with low load-bearing capability
- Fast construction process
- Certified quality
- Made in Germany





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