

Innovative products for road
construction and landscaping

ritter
LANDSCAPING

ProGrass



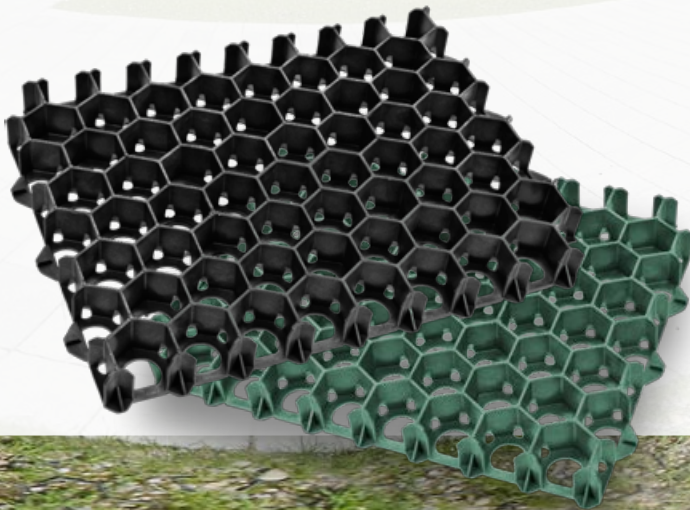
ProGrass – protects against erosion and
allows for intensive use of grassed areas by
pedestrians and vehicles





The advantages at a glance

- Suitable for grassed fire brigade access routes
- ProGrass can cope with loads of up to 100 t/m²
- For grassed utility areas of all kinds
- ProGrass is water-permeable in the long term
- Protects the substrate against compaction
- ProGrass protects against erosion
- The height of the honeycombs allows optimal grass growth
- Stable anchorage using ground spikes
- ProGrass is resistant to temperature, deformation and expansion



Open-pored

ProGrass honeycomb lawn protection does not seal the soil, enabling grass to establish itself over the whole area.

Optimal nutrient exchange is ensured by the structure and holes between the cells of the honeycomb. Open side walls prevent temperature-related horizontal shifting of the panels.



For grassed fire brigade access routes

The technical details of ProGrass honeycomb lawn protection mean grass can grow optimally across the full surface, so that the honeycomb itself becomes almost invisible by the end of the first growing season.



For a wide variety of different outdoor areas

ProGrass honeycomb lawn protection offers adequate stability and can be used safely even in wet weather. Ideal for a second parking space for guests on the lawn, a parking area for a mobile home, boat or all-purpose trailer, or a path across a lawn that can be used under all weather conditions.



For golf courses and utility areas

Where surfaces are to be planted for optical or ecological reasons or where they are in temporary or constant use, ProGrass is the ideal reinforcement system. Maintenance is the same as for a normal lawn.



Broad surface green

ProGrass promotes broad surface green by the end of the first growing season.



There are many areas in the vicinity of buildings and facilities which could benefit from being grassed over. ProGrass helps to make these areas usable long-term and protects them against damage.

Well maintained

A wide leaf rake, such as the **MegaLeaf** by Ritter Landscaping, is suitable for removing leaves and cleaning surfaces fitted with ProGrass honeycomb lawn protection.

MegaLeaf

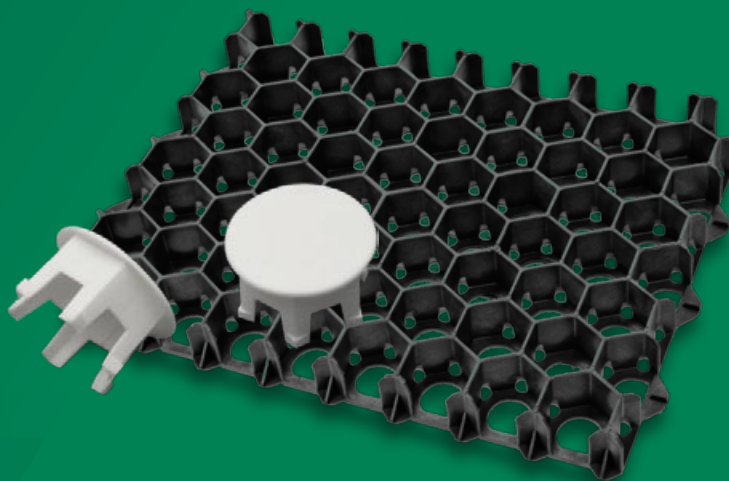




It is not only useful for large areas. ProGrass honeycomb lawn protection is equally versatile when used for small surfaces.

Clearly demarcated.

The ProGrass markers are designed in such a way that they can be inserted into the ProGrass panel cells even after they have been filled at any points where they may be required. Various marking angles can be produced by the various arrangements possible.





ProGrass – easy to lay with minimal labour requirements.



1. Base course

A base course in accordance with the ZTVT-Stb 86 directive is needed as a substrate for installation of ProGrass honeycomb lawn protection. This will serve to distribute the traffic load to the substrate. Base courses also used as frost protection usually consist of a gravel layer with a depth of at least 20 cm consisting of gravel sand 0/32 mm, topped by a gravel base course 0/45 mm with a depth of at least 15 cm (RC-material can be used as an alternative option). If necessary, the base course can be interspersed with a long-term fertiliser, e.g. Floranid-Permanent. Volume recommendation approx. 60 g/m².

2. Installation bed

The most suitable installation bed is a gravel/sand mixture 0/5 to 0/11 mm, mixed with fertiliser in equal parts. The mixture should be water-permeable, with a stable structure and offer good root penetration. Where an area is normally not or only temporarily used by vehicles, e.g. fire brigade access, a small amount (max. 15% by volume) of pre-screened

topsoil can be added. The installation bed with a depth of approximately 5 cm must be levelled. To promote growth, an organic fertiliser, e.g. Oscorna-Animalin or a synthetic long-term fertiliser such as Floranid-Permanent (approx. 20g/m²) can be mixed in.

3. Installation

It is recommended to install the panels as part of an interlocking grid. This infinite pattern within a grid of selected dimensions ensures minimal wastage. Borders used as additional shear protection or to ensure a flush edge for grass-cutting purposes should be at a distance of approximately 1 cm from the covering.

It is not recommended to use only ProGrass for installation in parking lots. We recommend the use of GravelGrid flooring panels for parking lots.

Tip: The honeycomb lawn protection can be cut with conventional tools (hand saw, jig saw, small circular saw).

4. Infilling

Substrates with a high water capacity (>

50% by volume) and adequate air capacity (\geq approx. 10% by volume) should be used when there is a need for a relatively thin layer of vegetation. Substrates based on approximately 50% by volume of a low-salt (max. 3 g salt/l), mature, vegetation-compatible compost mixed with open-pored mineral substances (e.g. brick fragments, lava/pumice) are recommended.

Tip: Where a surface with gravel infill is desired, we recommend our specially developed "GravelGrid product in combination with a grain size of 5/8 mm or 2/8 mm.

5. Greening

If the surface is to be covered with ample vegetation, a gravel turf mixture with a stable structure and a grain size of approximately 0/16 mm with organic fertiliser and approximately 10 – 15% topsoil is ideal for use as infill material.

Rolled lawn is only recommended for areas intended for immediate, limited and temporary use.

The 1.5 – 2 cm deep turf is rolled into the loosely filled cells, using a static roller.

ProGrass as an interlocking installation



Angle examples for marking with ProGrass markers

The infill should always be loose to prevent excessive compaction.

6. Maintenance

A certain amount of maintenance is required to sustain long-term vegetation. Normally, maintenance according to DIN 18917 with four cuts is agreed upon. At the time of acceptance, the average projected coverage should be 50 – 75%, depending on the lawn protection method used.

Depending on the season, the growth phase will be approximately 2 months. During drought periods, 5 litres of water per m² will be required on a regular basis, 4 times a week.

Once the growth phase has begun, a full mineral fertiliser such as Nitrophoska-Perfekt is to be used at a volume of 25 g/m².

Once the grass has grown to approximately 5 – 8 cm above the upper edge of the ProGrass honeycomb lawn protection, it should be cut back to approximately 3 cm to promote the growth of the lower-level grass.

Any settlement of the substrate should be compensated for by brushing in washed sand 0/2 mm or fine gravel 2/5 mm.

A second dose of fertiliser such as Nitrophoska-Perfekt at approx. 15 – 25 g/m² should be added a year later to boost vegetation.

The installation instructions are only for information purposes.

They may need to be adapted to local and climatic conditions.

Panel format:

L, W, H, | 500 x 390 x 45 mm

Installation format:

Same as panel format

Requirements per m²:

approx. 5 panels

Weight per panel:

approx. 1.1 kg

Weight per m²:

approx. 5.5 kg

Material:

HD-PE regranulate, unmixed, environmentally neutral

Colours:

green, anthracite.
Special colours on request

Connection system:

The panels will automatically stabilise each other once installed.

Accessories:

ProGrass markers for labelling utility and parking areas.
Standard colour white

Pallet content:

approx. 24 m² or 36 m²

Pallet format:

L, W, H | 120 x 80 x 145 or 215 cm

Pallet weight:

150 or 220 kg

Infill material requirements:

approx. 45 l/m²

Load:

According to the guidelines for fire brigade access routes
1,000 kN/m²
(LGA Bavaria No. 79202396 and MK 3503513/2)

Hotline

If you should have any questions, please contact:
Tel +49 8232 5003-32
info@ritter-landscaping.de

Our local service

Installation instructions and advice can also be provided on site to support a customer's project or when first using the product.

made in germany  made by ritter

Installation bed and infill:



3. Substrate mixture such as sand, topsoil, green compost



2. Installation bed, gravel/sand mixture with added fertiliser (3 – 5 cm)

1. Stable, water-permeable base course 0/32 (frost protection)



 **ProGrass**

ProGrassflex

MultiFlixx

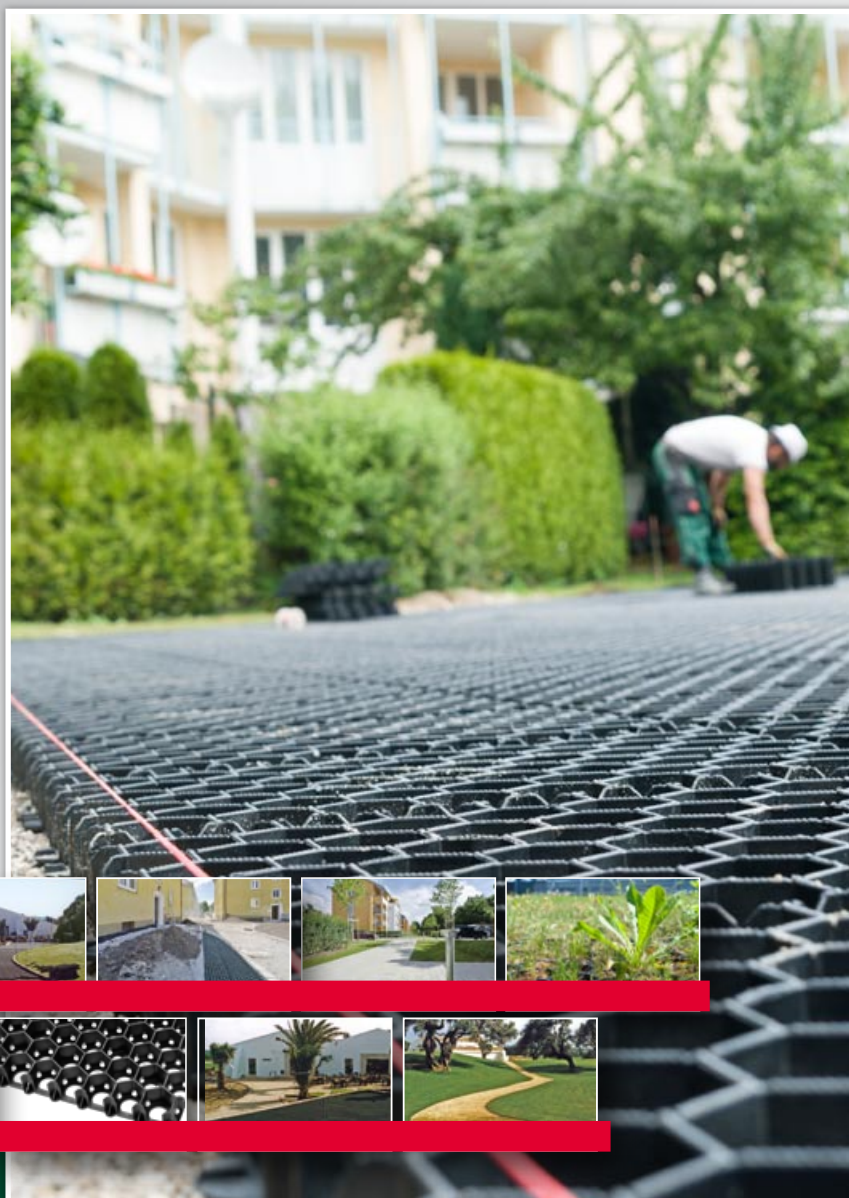
GravelGrid

Road Edge Pavé

WastoDrain

SysDrain

MegaLeaf



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The written and verbal advice we provide regarding the application of our products is based on experience. It is provided to the best of our knowledge and should be regarded as non-binding. The user is ultimately responsible for the use and processing of the products. Colour deviations and slight deviations in weight and format are possible, due to the use of recycled materials. Subject to technical changes.