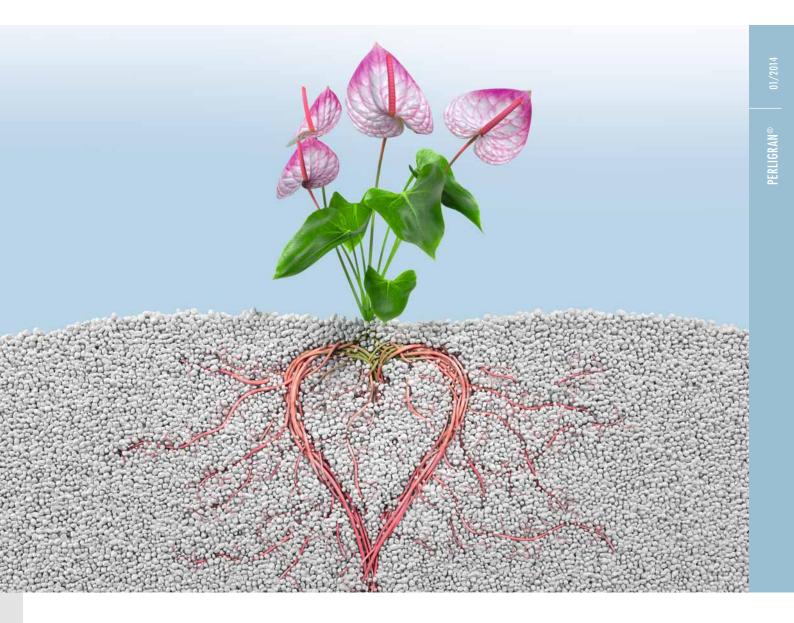


www.growland.net / www.growland-hydroponics.com https://www.growland.fr / https://www.growland.co.uk https://www.growland.es / https://www.growland.at https://www.growland.nl / https://www.growland.it https://www.growland.se / https://www.growland.pl





# PERLIGRAN<sup>®</sup> – where your roots strike success.

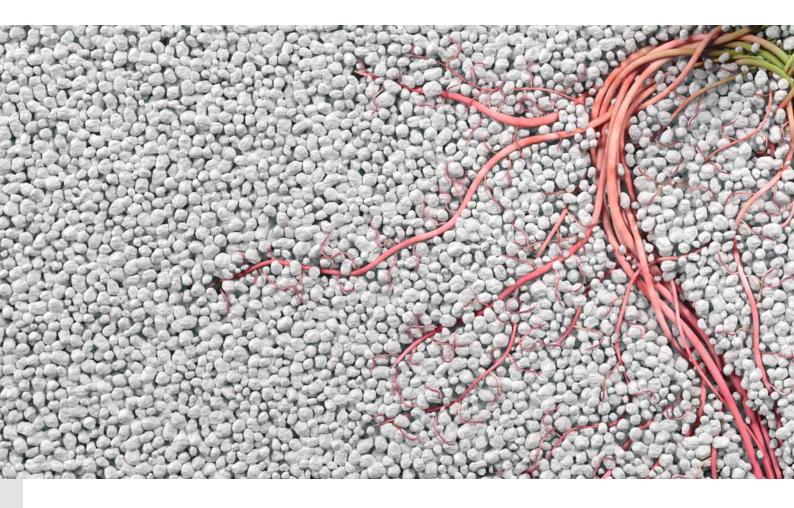
Back to the roots, where it all begins.



www.knauf-aquapanel.com

### PERLIGRAN® - give your plants pure love.

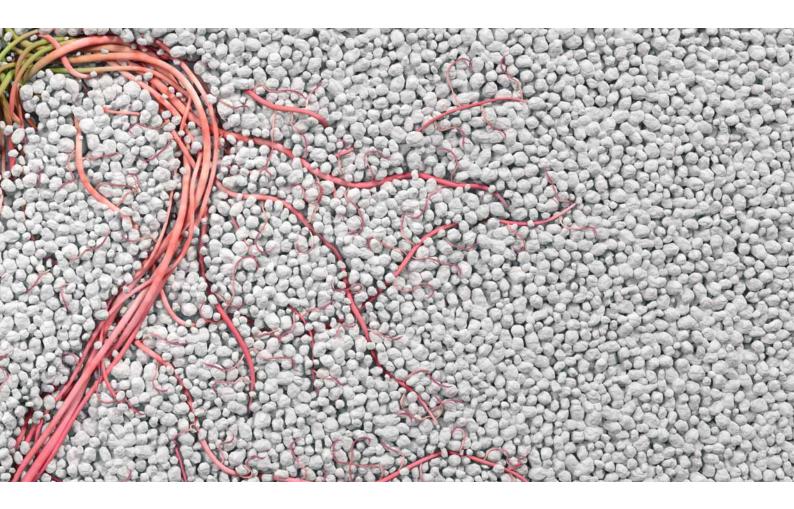
Vigorous growth's all-natural basis.



#### You and your customers deserve more.

Whether as soil amendment or pure growing medium, PERLIGRAN<sup>®</sup>, a 100 % mineral product, will bring prosperity to your customers, their plants and you. PERLIGRAN<sup>®</sup> delivers more growth, purity, sustainability, and more profit. PERLIGRAN<sup>®</sup>'s secret lies in its purity.





#### Where plant roots feel at home.

Only an optimum growing medium can produce optimum growth. For this reason, we put a great deal of effort into developing and manufacturing our horticultural perlite products even for finest roots.

# Reap the fruits of good health and a secure future.

PERLIGRAN<sup>®</sup> allows both plants and your profit to flourish, eliminating disease, insects, weeds and physical damage once and for all. With PERLIGRAN<sup>®</sup>, your future is secure.

#### Products of their environment.

A planting's yield is always relative to the quality of the growing medium. Here is where PERLIGRAN<sup>®</sup> promises more. Plants' roots will develop to their fullest potential, rewarding you with vigorous growth, thanks to the enhancing quality of PERLIGRAN<sup>®</sup>'s porous structure and its uniquely miniscule proportion of fine grain.

#### Grow your success. With PERLIGRAN®.

# Of the Earth, for the Earth.

Inherently energetic.

PERLIGRAN® from KNAUF AQUAPANEL is a soil-conditioning product which specialises in growth. Manufactured from 100% naturally derived perlite, PERLIGRAN®'s strengths are especially beneficial as:

- Additive for substrates
- Hydroponic growing medium

#### Pure prosperity.

PERLIGRAN<sup>®</sup> is so natural it allows even difficult plants to develop into fruitful adults. Considering its exceptional qualities, it's easy to understand why PERLIGRAN<sup>®</sup> should be the first choice for every substrate and growing medium:

- All natural and all mineral
- Uniform porosity throughout
- Screened grains
- Miniscule portion of fine particles (premium variant is absolutely dust-free)
- High-volume water storage
- Excellent capillary action and drainage
- Lightweight
- Chemically inert
- Phytosanitary compliant (sterilised at over 1,000 °C)
- RHP-certified







## Perlite - volcanic power.

A ground-gaining resource.

PERLIGRAN®'s pure essence is perlite – natural volcanic rock – obtained on the Greek island Milos. The perlite found there is highly valued because it is exceptionally high-grade with perfect crystallisation water content and enormous expansion capacity.



Natural energy out of which new life is born in perlite.

#### Solid-as-a-rock quality.

Since we acquire our raw material exclusively from this high-grade source, we guarantee you unwavering premium quality. And thanks to our manufacturing and refinement processes, you can be certain that with every purchase of PERLIGRAN® you'll always get the same certified quality. All PERLIGRAN® products meet the high standards of Holland's RHP certification.

#### How we refine natural perlite:

- 1. First, we mechanically pulverise, grade and pre-dry the raw material.
- 2. Then we heat it briefly to over 1,000 °C.
- The material's water expands, enlarging the rock's volume by up to 20%.
- 4. Hereafter we adjust our refinement processes to meet specific product requirements.

# Your growing medium will breathe more deeply.

With every grain.

An ideal growing medium ought to offer a great many advantages to both plants and your customers. Which is why the best you can do is to amend the quality of your growing medium with PERLIGRAN<sup>®</sup>. After all, when a plant's roots are full of life, it will produce vigorously.

#### **Doubly pure**

When we say pure, we mean pure! And for you that means you are providing plants with an all-natural mineral amendment, one screened to the point that is virtually void of fine particles. Thus, your growing medium has ideal aeration and it will not sink with irrigation. In addition, it allows you to optimise your mix and volume ratios.



#### **Consistent quality**

Since roots are highly sensitive to their surroundings, they require special attention. With PERLIGRAN<sup>®</sup>, you can be sure you're getting a premium product with RHP-certified controlled quality. Our own perlite mining operations make this possible.



#### Short lead times

Strategically positioned at three key locations in Germany, KNAUF AQUAPANEL's manufacturing facilities are never too far from you, so you'll never have to wait long for your order.



# Company owned and operated mining facility

We obtain our high-grade perlite from our company mining operations in Greece and process it in Germany, which means we have control of the source of our raw materials, ensuring uninterrupted availability.



#### Service and qualified assistance

The excellent properties of perlite make a high level of expertise indispensable. For this reason, our horticultural specialists stand ready to assist you.



#### Innovation

We strive to make a better future possible. And since there's no better place to do this than where something grows, we aim to bring valuable innovations to the horticultural market. Our Grow Bags are an example.



# Substrates prefer our additives.

PERLIGRAN<sup>®</sup> keeps ratios in balance.

To achieve a noticeable increase in the volume of your substrate, you need an additive that will retain its dimensional integrity through processing. We screen PERLIGRAN<sup>®</sup> to remove fine particles produced by friction between the grains that would lead to compaction through irrigation. The yield will testify to the improvement in your growing media.

#### The perfect mix. An example.

Thanks to the removal of fine particles, premium-quality PERLIGRAN<sup>®</sup> allows you to make a substrate with less loss through mixing.

#### **Specifically:**

Depending on the grain size and screening (single or double), 85% to 95% of the amendment retains its dimensional and proportional integrity in the substrate.

#### Your benefits:

- Lower material costs
- Lower transport costs
- Lower administrative costs

# Hydroponic, too good to throw away.

PERLIGRAN<sup>®</sup> – a multi-use product.

Pure PERLIGRAN<sup>®</sup> is reusable, meaning PERLIGRAN<sup>®</sup> used for soilless hydroponic growing may be used up to five times again. A specially developed steam procedure kills any potentially harmful viruses, moulds and bacteria, making PERLIGRAN<sup>®</sup> phytosanitary-compliant while conserving a valuable resource for further use.

#### Quality you probably won't find elsewhere. An example.

Thanks to PERLIGRAN®'s high-grade quality, varying species of cut flowers will grow in the same medium for five to ten years.

#### Internationally valued:

PERLIGRAN<sup>®</sup> has you covered, everywhere. In many countries, the cost of procuring or cultivating seedlings, such as anthuriums or orchids, is prohibitive. PERLIGRAN<sup>®</sup> allows you to create growing media with quality that often far exceeds what is locally available.

VA IL

#### Leading grower of anthuriums recommends PERLIGRAN®:

- Total cost for new growing facility: approx. €80/m<sup>2</sup>
- High-grade PERLIGRAN<sup>®</sup> is the right choice because it enables you to get the most growth per euro of money invested in the new facility
- Cost of growing media: €2/m<sup>2</sup> with 6 to 8 years of use

### Five variants with the same purpose:

Tailoring to your growing needs.

Roses, tomatoes, peppers – every plant has very individual requirements when it comes to the media in which it grows. KNAUF AQUAPANEL allows you to meet these vastly different demands, offering its high-quality PERLIGRAN® in four variants plus its Grow Bag, a ready-mix package. Each product has just the right ingredients for your specific crop with the ideal grading and grain sizes for prolific roots and vigorous growth.

#### Products.

Products	Grain size	Screening
PERLIGRAN® Classic	0—6 mm	-
PERLIGRAN® Medium	0—3 mm	-
PERLIGRAN® Extra	2—6 mm	single
PERLIGRAN® Premium	2—6 mm	double

Products	Grain size	Screening
Grow Bag	0—3 mm/2—6 mm	-

#### Technical data.

PERLIGRAN®	Classic	Medium	Extra	Premium	
pH (average)	7	7	7	7	
True density	2.0–2.2 g/cm <sup>3</sup>	2.0-2.2 g/cm <sup>3</sup>	2.0–2.2 g/cm³	2.0-2.2 g/cm <sup>3</sup>	
Bulk (poured) density	90 kg/m <sup>3</sup> ± 20%	80 kg/m³ ± 20%	85 kg/m³ ± 20%	90 kg/m³ ± 20 %	
Packaging	PERLIGRAN® products are available in sacks, big bag or bulk.				







PERLIGRAN<sup>®</sup> Medium





PERLIGRAN<sup>®</sup> Premium



PERLIGRAN® Extra

# A manufacturer for unique solutions.

KNAUF AQUAPANEL.

As a leading manufacturer with a reputation for advanced products, we remain true to our character when it comes to horticultural products. KNAUF AQUAPANEL stands for innovative technologies and a promise of quality, which are the standards by which you can measure our performance. In horticulture and landscaping, the peerless merits of PERLIGRAN<sup>®</sup> and Grow Bag are at once apparent: healthier roots and vigorous growth. Is there a better way to cultivate the future?



#### Profit with PERLIGRAN®:

- Manufactured in:
- Dortmund, Bülstringen, Neuburg a. d. Donau
- Short lead times
- Locally sited
- Lower shipping costs
- Certain availability
- Quality leader in horticultural products
- Promise of high quality





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PERLIGRAN®

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