SUBSTRATES Advanced

Evolution of Growing Media

www.klasmann-deilmann.com

Your way to advanced solutions

1913

we make it grow

SUBSTRATES Advanced

Evolution of Growing Media

Welcome to your advance

ADVANCED Substrates set the benchmark for future-oriented horticulture. They combine the most valued raw materials to high performance blends with a low carbon footprint. Wood fibre, perlite, cocos, green compost and peat boost essential characteristics in the substrate, thus ensuring the precise crop control in your nursery and the healthy growth of your plants.

ADVANCED Substrates cover all plant and cultivation segments for any horticultural application. The mixes are tried and tested and have proven their suitability for all internationally common applications in commercial horticulture.

Decades of experience with all major raw materials and the widest range of growing media give us a unique edge. That makes your next step easier. When you're ready to advance, we're ready to join you.

Frank Stolwijk, Satisfied ADVANCED customer and owner of Stolwijk Plants in the Netherlands

“ADVANCED Substrates by Klasmann-Deilmann …”

“… are the result of decades of research, development and experience. They guarantee the correct recipe for every crop, the best raw materials for every cultivation method, the highest quality for your nursery – and the use of highly sustainable resources for the environment and climate. We are convinced that more advanced means more success for your crops.”

Dr. Sebastian Kipp
Head of Advisory Services and Quality Management at Klasmann-Deilmann

“… contain a proportion of alternative raw materials. We rely on proven constituents such as wood fibres, green compost, coir and perlite. The tried and tested recipes meet all requirements for pioneering horticulture. They combine maximum crop safety with reliable availability and a reduced carbon footprint.”

Anja Fritzen
Technical Advisor at Klasmann-Deilmann

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we make it grow

"... are the next logical step on a path we have been following for more than thirty years. Modern raw materials create a wide range of options for meeting globally increasing demand for growing media. We offer more alternative constituents without compromising on quality. We are focusing on greater sustainability and consistently high crop security. The game-changing ADVANCED Substrates ensure that you stay abreast of one of the most important horticultural developments in recent decades."

Moritz Böcking
Managing Director at Klasmann-Deilmann

Find out more about ADVANCED Substrates

From coir to wood fibre:
Modern constituents for your ADVANCED Substrate

Why GreenFibre®?

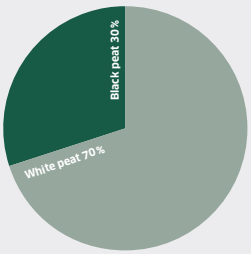
GreenFibre® ...

- **... is a wood fibre from sustainably managed forestry and manufactured by ourselves**
- **... is a RHP certified raw material, specially developed for the needs of modern horticulture**
- **... leads to better aeration and higher structural stability**
- **... increases drainage in the root zone, thus less issues with waterlogging**
- **... improves the water distribution in the substrate**
- **... ensures easier rewetting of the substrate**
- **... enables a healthy and fast root development**
- **... ensures better drying off of the substrate surface, thus less pressure from root diseases**
- **... prevents algae and moss, due to drier substrate surface**
- **... provides a stable nitrogen balance to suit normal feeding regime**

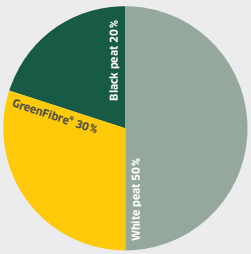
Reduce CO_2 emissions significantly. With climate-friendly substrate blends

Read more

Bedding substrates

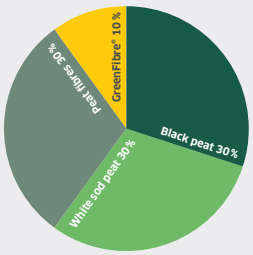


0% alternative constituents
(230 kg CO_2/m³)

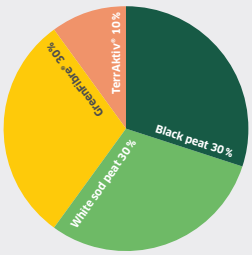


30% alternative constituents
= 28% less CO_2 emissions

Container substrates



10% alternative constituents
(204 kg CO_2/m³)



40% alternative constituents
= 24% less CO_2 emissions

Why perlite?

Perlite ...

... increases air capacity and drainage
... prevents waterlogging
... provides excellent structural stability
... is pH-neutral and has an extremely low salt level
... is ideal for use in substrates for propagation and potting when strong drainage and structural stability is required
... is produced according to high quality standards in our own factory

Why cocos products?

Coir Pith ...

... shows good rewettability
... supports a quick water uptake into the substrate
... provides a balanced air-water ratio and good drainage

Coco Fibre ...

... is characterised by a very high air capacity and low water capacity
... provides a high capillarity for a very fast water transport within the root zone
... supports the structural stability of a growing media

Coir for organic growing ...

... is carefully washed and not treated with mineral fertilisers
... carries the ecolabel IMO ensuring organic and ethical standards

Why TerrAktiv®?

TerrAktiv® green compost ...

... provides a high microbial activity
... shows suppressive effects on root diseases
... stimulates root development and plant growth
... acts as a slow-release nutrient source
... has a high buffering capacity
... improves shelf life of crops
... improves rewettability
... improves the nutrient release from organic fertiliser
... is certified to RHP quality standards and approved for organic cultivation

Sustainable growing media

We appreciate that you aim to manage your nursery responsibly also in terms of nature and climate protection. That's why ADVANCED Substrates offer you the maximum crop security while supporting your sustainable development.

By the use of alternative constituents, we optimise the characteristics of your substrate and reduce its carbon footprint at the same time. That leads to additional benefits such as ...

... more resource-saving cultivation through the use of more renewable raw materials
... lighter mixes and thus more environmentally friendly transport
... fewer emissions and therefore a more climate-friendly greenhouse
... increased microbial life and thereby stronger plants with less need for plant protection applications

Certified to the highest standards

Quality:	**Regelings Handels Potgronden (www.rhp.nl)**
Responsibility:	**Responsibly Produced Peat (www.responsiblyproducedpeat.org)**
Sustainability:	**Global Reporting Initiative (www.globalreporting.org)**
Organic:	**EC No. 2018/848 and 2021/1165, certified by ECOCERT® SA F-32600**
Climate:	**ISO 14064**
Nature:	**ISO 14001**
Processes:	**ISO 9001**

RHP Certified for Horticulture

responsibly produced peat

Approved by ECOCERT INPUTS

GRI

Why Peat?

Peat ...

... remains the key constituent in substrate production
... enables the use of any other alternative raw material
... is well available long-term all year round
... provides uniform properties
... ensure a stable pH value and optimum nutrient level
... shows good buffering capabilities
... has a high structural stability and good wettability
... allows an optimum ratio between air and water capacity
... is free from pathogens or harmful substances and almost free from weed seeds

“The demand for plants cultivated in peat-reduced substrate is increasing. We therefore use various alternative constituents in our ADVANCED Substrate. Besides GreenFibre® and coir, also Containermulch for covering pots. In this way, we achieve various advantages in crop management. Overall, the new ADVANCED Substrate from Klasmann-Deilmann is at least as good as if it contained 100% peat.”

Lucas de Nolf, satisfied ADVANCED customer, co-owner of ‚Willy De Nolf Boomkwekerij NV‘, a leading container plant producer in Belgium

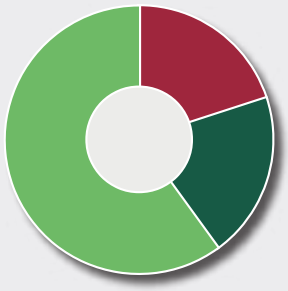
Find out more about our
ADVANCED Potting Substrates

Propagation Substrates

Seedling and tray substrates for the propagation of vegetable and ornamental young plants

SUBSTRATES Advanced

Seedling Substrate 080



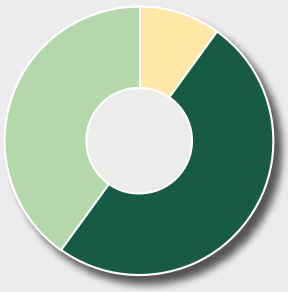
Structure	–	extra fine
pH-value (H_2O)	–	6.0
Fertilisation (g/l)	–	0.7
Extra trace elements	–	√
Water capacity	–	++++
Air capacity / drainage	–	++
Water uptake	–	+++++
Characteristics	–	Best water uptake and reduced nutrition
Use for	–	Salt-sensitive ornamental plants, e. g. Begonia, Impatiens

17 % less CO_2*

*Compared to segment standard with 100% peat (rec. CKB), verified in accordance with ISO 14064-1 standard

Coir · Frozen through black peat · White sod peat (1 – 7 mm)

Tray Substrate + 10 % GreenFibre® 4Q7



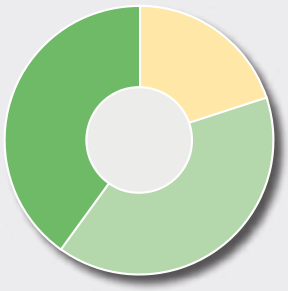
Structure	–	extra fine
pH-value (H_2O)	–	6.0
Fertilisation (g/l)	–	1.3
Extra trace elements	–	√
Water capacity	–	++++
Air capacity / drainage	–	++
Water uptake	–	++++
Characteristics	–	Universal tray substrate. Suitable for automatic filling lines
Use for	–	Vegetable seedlings, tobacco seedlings

10 % less CO_2*

*Compared to segment standard with 100% peat (rec. 060), verified in accordance with ISO 14064-1 standard

GreenFibre® fine · Frozen through black peat · White peat (0 – 5 mm)

Plug Mix + 20 % GreenFibre® 9U5



Structure – fine
pH-value (H_2O) – 6.0
Fertilisation (g/l) – 0.5
Extra trace elements – √

Water capacity – +++
Air capacity / drainage – ++++
Water uptake – +++

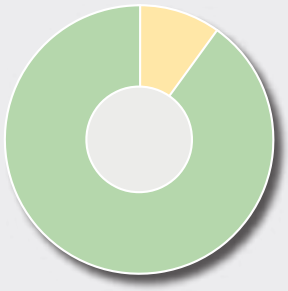
Characteristics – Provides increased air capacity and drainage
Use for – Vegetable young plants, ornamental young plants

19 % less CO_2*

*Compared to segment standard with 100% peat (rec. 408), verified in accordance with ISO 14064-1 standard

GreenFibre® fine | White peat (0 – 5 mm) | White sod peat (1 – 7 mm)

Base Substrate 1 fine + GreenFibre® 6X2



Structure – extra fine
pH-value (H_2O) – 6.0
Fertilisation (g/l) – none
Extra trace elements – √

Water capacity – +++
Air capacity / drainage – +++
Water uptake – +++

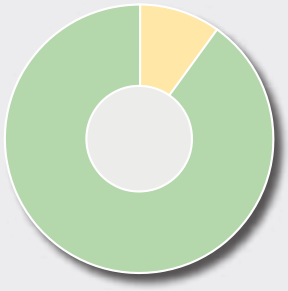
Characteristics – To mix with fertiliser on site or alongside liquid feed
Use for – Vegetable young plants, ornamental young plants

9 % less CO_2*

*Compared to segment standard with 100% peat (rec. 413), verified in accordance with ISO 14064-1 standard

GreenFibre® fine | White peat (0 – 5 mm)

TS 1 fine + GreenFibre® 6X3



Structure – extra fine
pH-value (H_2O) – 6.0
Fertilisation (g/l) – 1.0
Extra trace elements – √

Water capacity – +++
Air capacity / drainage – +++
Water uptake – +++

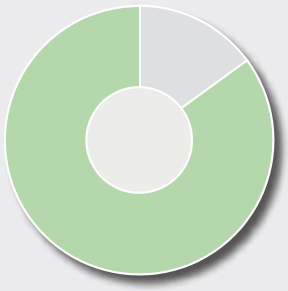
Characteristics – Extra light, free flowing seedling substrate. Suitable for automatic filling lines
Use for – Vegetable young plants, ornamental young plants

9 % less CO_2*

*Compared to segment standard with 100% peat (rec. 876), verified in accordance with ISO 14064-1 standard

GreenFibre® fine | White peat (0 – 5 mm)

TS 1 fine + 15 % Perlite 419



Structure – extra fine
pH-value (H_2O) – 6.0
Fertilisation (g/l) – 1.0
Extra trace elements – √

Water capacity – +++
Air capacity / drainage – +++
Water uptake – +++

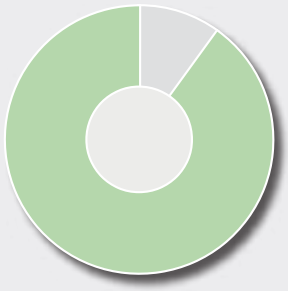
Characteristics – Extra light, free flowing, with improved drainage
Use for – Vegetable young plants, tobacco seedlings

9 % less CO_2*

*Compared to segment standard with 100% peat (rec. 876), verified in accordance with ISO 14064-1 standard

Perlite coarse (1 – 7.5 mm) White peat (0 – 5 mm)

TS 2 fine + 10 % Perlite S39



Structure – extra fine
pH-value (H_2O) – 6.0
Fertilisation (g/l) – 2.0
Extra trace elements – none

Water capacity – +++
Air capacity / drainage – +++
Water uptake – +++

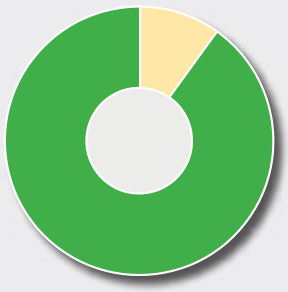
Characteristics – For young plants with high nutrient demand and for growing conditions with frequent irrigation
Use for – Vegetable seedlings, tobacco seedlings

6 % less CO_2*

*Compared to segment standard with 100% peat (rec. 424), verified in accordance with ISO 14064-1 standard

Perlite coarse (1 – 7.5 mm) White peat (0 – 5 mm)

TS 3 fine + 10 % GreenFibre® 1R1



Structure – extra fine
pH-value (H_2O) – 6.0
Fertilisation (g/l) – 1.0
Extra trace elements – √

Water capacity – ++++
Air capacity / drainage – ++
Water uptake – +++

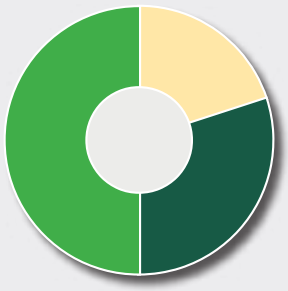
Characteristics – Seedling mix with increased water capacity
Use for – Vegetable young plants, ornamental young plants

9 % less CO_2*

*Compared to segment standard with 100% peat (rec. 416), verified in accordance with ISO 14064-1 standard

GreenFibre® fine White peat, moderately decomposed (0 – 5 mm)

TS 3 fine + 20 % GreenFibre® 5Q4



Structure – extra fine
pH-value (H_2O) – 6.0
Fertilisation (g/l) – 1.3
Extra trace elements – √

Water capacity – ++++
Air capacity / drainage – +++
Water uptake – ++++

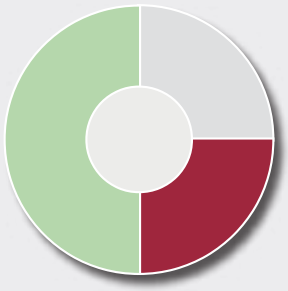
Characteristics – Good water retention combined with improved porosity
Use for – Vegetable young plants, ornamental young plants

17 % less CO_2*

*Compared to segment standard with 100% peat (rec. 316), verified in accordance with ISO 14064-1 standard

GreenFibre® fine | Frozen through black peat | White peat, moderately decomposed (0 – 5 mm)

TS Steckmedium with 25 % perlite + 25 % coir T30



Structure – extra fine
pH-value (H_2O) – 6.0
Fertilisation (g/l) – 0.5
Extra trace elements – √

Water capacity – +++
Air capacity / drainage – +++
Water uptake – ++++

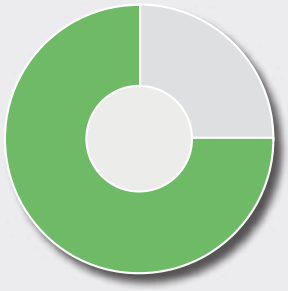
Characteristics – Rooting cuttings in small trays and small paper pots
Use for – Ornamental plants

34 % less CO_2*

*Compared to segment standard with 100% peat (rec. N51), verified in accordance with ISO 14064-1 standard

Perlite fine (0.6 – 2.5 mm) | Coir | White peat (0 – 5 mm)

TS Steckmedium 686



Structure – fine
pH-value (H_2O) – 6.0
Fertilisation (g/l) – 0.5
Extra trace elements – √

Water capacity – ++
Air capacity / drainage – ++++
Water uptake – +++

Characteristics – Rooting cuttings in modular trays, small pots and paper pots
Use for – Ornamental plants, shrubs and trees

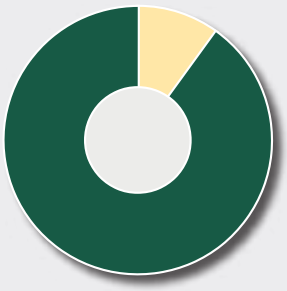
14 % less CO_2*

*Compared to segment standard with 100% peat (rec. N51), verified in accordance with ISO 14064-1 standard

Perlite coarse (1 – 7.5 mm) | White sod peat (1 – 7 mm)

Potgrond H90 SL + GreenFibre®

6X1



GreenFibre® fine Frozen through black peat

Structure	–	fine
pH-value (H_2O)	–	6.0
Fertilisation (g/l)	–	1.5
Extra trace elements	–	√
Water capacity	–	+++++
Air capacity / drainage	–	+
Water uptake	–	+++++
Characteristics	–	Provides extra water retention, suitable for sowing in trays
Use for	–	Vegetable seedlings, tobacco seedlings

9 % less CO_2*

*Compared to segment standard with 100% peat (rec. 076), verified in accordance with ISO 14064-1 standard

"I immediately liked GreenFibre®. The tray substrate absorbs the water better and we can water a little less. This also means we have fewer problems with dry areas in the trays. The crops develop more uniformly, which is why GreenFibre® is now consistently used by us. In addition, we should think about the use of our planet's resources. GreenFibre® can do a lot to conserve valuable peat raw materials."

Patrick Limousin, Satisfied ADVANCED customer and owner of EARL Limousin, a leading producer of vegetable young plants in France

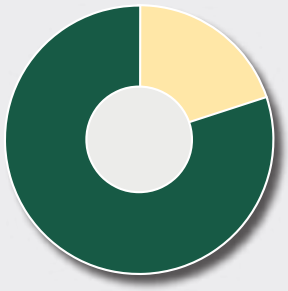
Find out more about our
ADVANCED Propagation Substrates

Blocking Substrates

Substrates for the propagation of ornamental and vegetable young plants in press pots

SUBSTRATES Advanced

Potgrond H80 + GreenFibre® 479



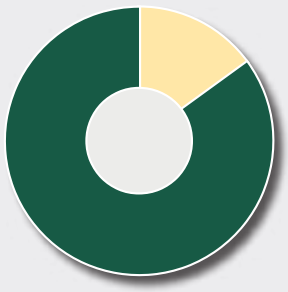
GreenFibre® fine Frozen through black peat

Structure	–	fine
pH-value (H_2O)	–	6.0
Fertilisation (g/l)	–	1.5
Extra trace elements	–	none
Water uptake	–	+++++
Water capacity	–	++++
Block stability	–	+++++
Characteristics	–	Good block stability also for larger press pots
Use for	–	Vegetable young plants

17 % less CO_2*

*Compared to segment standard with 100% peat (rec. 051), verified in accordance with ISO 14064-1 standard

Potgrond H85 + GreenFibre® 078

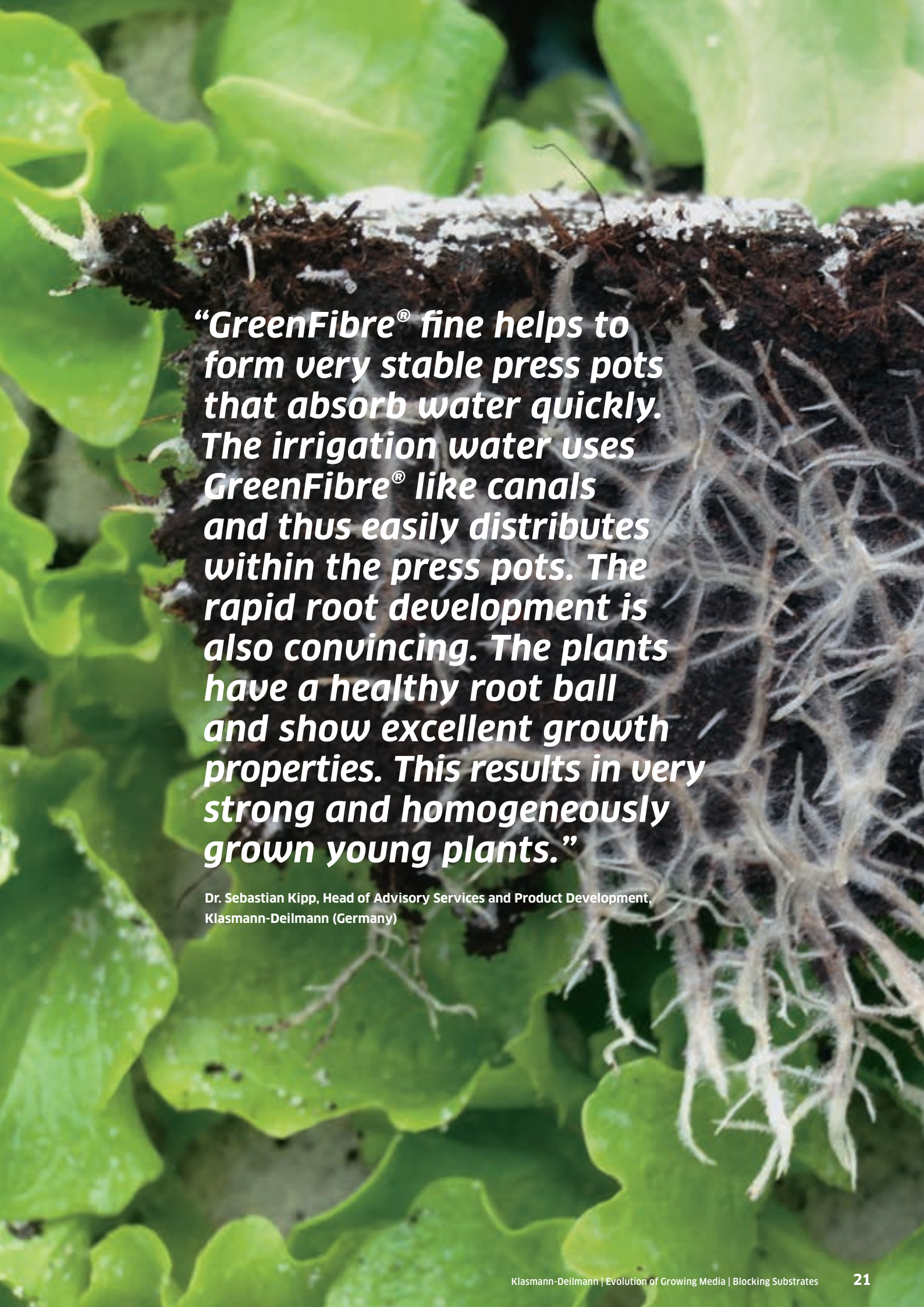


GreenFibre® fine Frozen through black peat

Structure	–	fine
pH-value (H_2O)	–	6.0
Fertilisation (g/l)	–	1.5
Extra trace elements	–	none
Water uptake	–	+++++
Water capacity	–	+++++
Block stability	–	+++++
Characteristics	–	Produces very strong blocks
Use for	–	Vegetable young plants, ornamental young plants

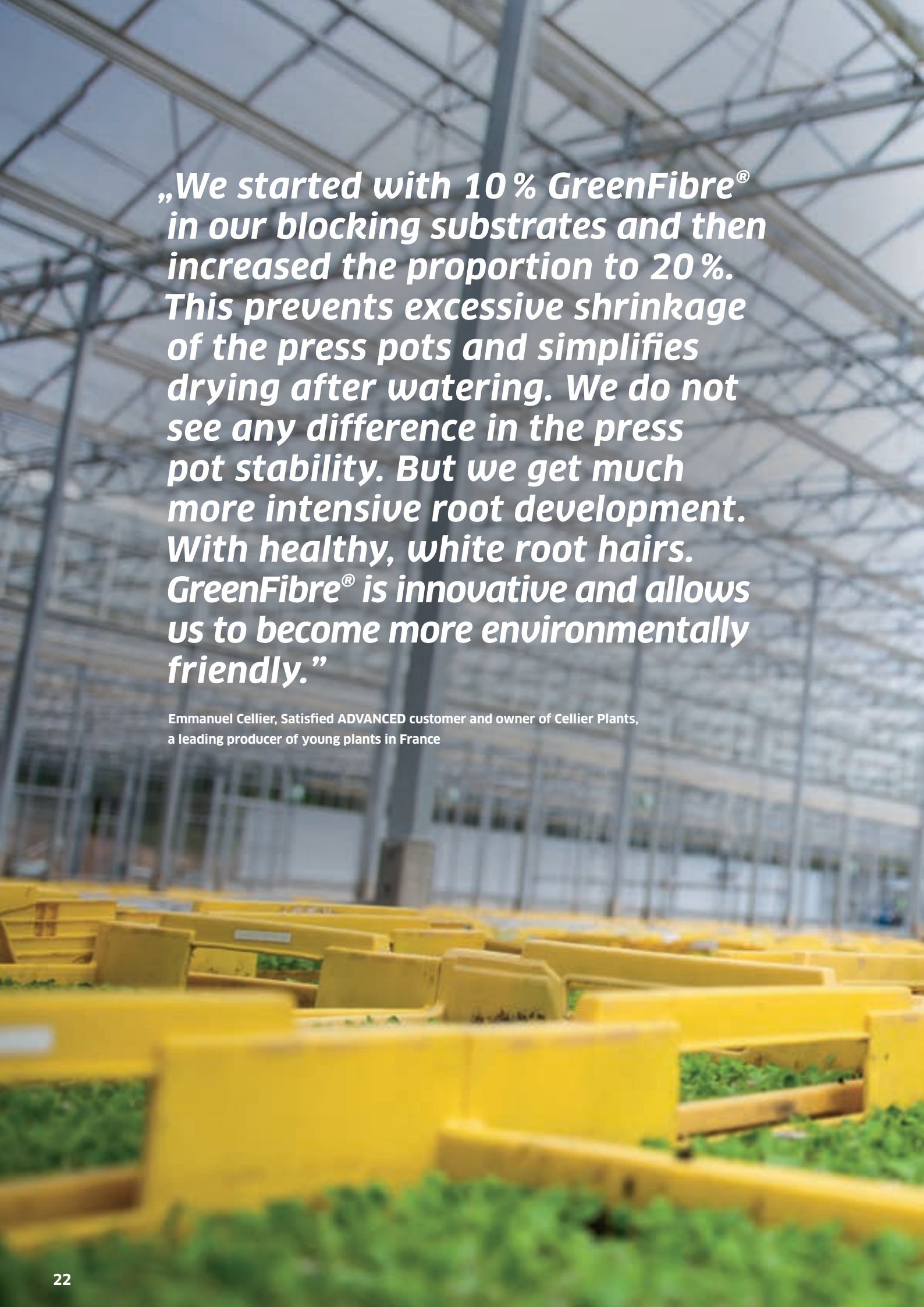
14 % less CO_2*

*Compared to segment standard with 100% peat (rec. 030, rec. 002), verified in accordance with ISO 14064-1 standard



"GreenFibre® fine helps to form very stable press pots that absorb water quickly. The irrigation water uses GreenFibre® like canals and thus easily distributes within the press pots. The rapid root development is also convincing. The plants have a healthy root ball and show excellent growth properties. This results in very strong and homogeneously grown young plants."

Dr. Sebastian Kipp, Head of Advisory Services and Product Development, Klasmann-Deilmann (Germany)



„We started with 10 % GreenFibre® in our blocking substrates and then increased the proportion to 20 %. This prevents excessive shrinkage of the press pots and simplifies drying after watering. We do not see any difference in the press pot stability. But we get much more intensive root development. With healthy, white root hairs. GreenFibre® is innovative and allows us to become more environmentally friendly."

Emmanuel Cellier, Satisfied ADVANCED customer and owner of Cellier Plants, a leading producer of young plants in France

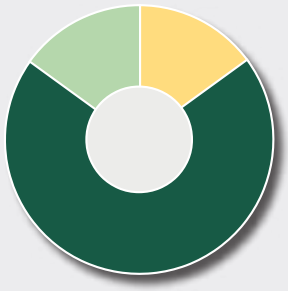
Find out more about our
ADVANCED Blocking Substrates

Bedding Substrates

Substrates for balcony, patio and bedding plants
in small to medium-sized pots and packs

SUBSTRATES Advanced

Substrate 1 + GreenFibre® 098

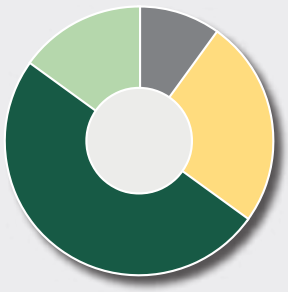


Structure	–	fine
pH-value (H_2O)	–	5.8
Fertilisation (g/l)	–	1.2
Extra trace elements	–	none
Water capacity	–	+++++
Air capacity / drainage	–	++
Water uptake	–	+++++
Characteristics	–	Allround substrate forpricking out and growing on
Use for	–	Bedding and patio plants

*Compared to segment standard with 100% peat (rec. 095), verified in accordance with ISO 14064-1 standard

GreenFibre® medium · Frozen through black peat · White peat (0 – 10 mm)

Substrate 1 with 10 % TerrAktiv® + 25 % GreenFibre® 6X5

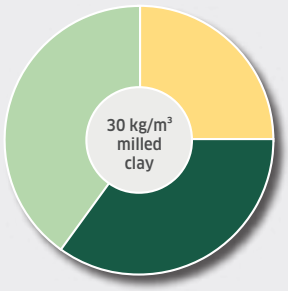


Structure	–	fine
pH-value (H_2O)	–	5.8
Fertilisation (g/l)	–	1.2
Extra trace elements	–	none
Water capacity	–	++++
Air capacity / drainage	–	+++
Water uptake	–	+++++
Characteristics	–	Improved nutrient buffer and strong microbial activity for healthy plants
Use for	–	Bedding plants, vegetables in pots, pot herbs

*Compared to segment standard with 100% peat (rec. 095), verified in accordance with ISO 14064-1 standard

TerrAktiv® · GreenFibre® medium · Frozen through black peat · White peat (0 – 10 mm)

BP Substrate 4 fine with clay + GreenFibre® 665



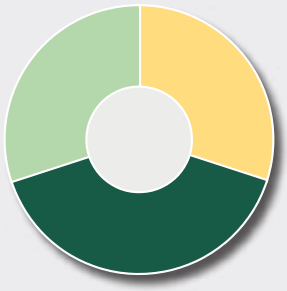
Structure	–	fine
pH-value (H_2O)	–	6.0
Fertilisation (g/l)	–	1.2
Extra trace elements	–	none
Water capacity	–	++++
Air capacity / drainage	–	+++
Water uptake	–	+++++
Characteristics	–	High water retention combined with improved drainage
Use for	–	Bedding and patio plants

23 % less CO_2*

*Compared to segment standard with 100% peat (rec. 276), verified in accordance with ISO 14064-1 standard

GreenFibre® medium | Frozen through black peat | White peat (0 – 10 mm)

BP Substrate 2 medium + GreenFibre® 698



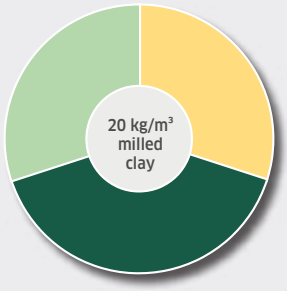
Structure	–	medium
pH-value (H_2O)	–	6.0
Fertilisation (g/l)	–	1.2
Extra trace elements	–	√
Water capacity	–	++++
Air capacity / drainage	–	+++
Water uptake	–	++++
Characteristics	–	Allround bedding mix with good structure and drainage
Use for	–	Bedding and patio plants

28 % less CO_2*

*Compared to segment standard with 100% peat (rec. 262), verified in accordance with ISO 14064-1 standard

GreenFibre® medium | Frozen through black peat | White peat (0 – 25 mm)

BP Substrate 2 medium with clay + GreenFibre® 716



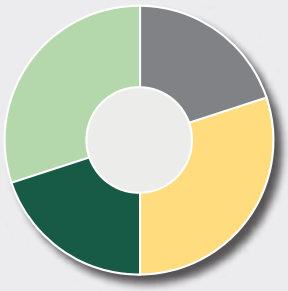
Structure	–	medium
pH-value (H_2O)	–	6.0
Fertilisation (g/l)	–	1.0
Extra trace elements	–	√
Water capacity	–	++++
Air capacity / drainage	–	+++
Water uptake	–	+++++
Characteristics	–	Good structure and drainage with extra nutrient buffer
Use for	–	Bedding and patio plants, pot herbs

28 % less CO_2*

*Compared to segment standard with 100% peat (rec. 1C2), verified in accordance with ISO 14064-1 standard

GreenFibre® medium | Frozen through black peat | White peat (0 – 25 mm)

BP Substrate 2 with 20 % TerrAktiv® + 30 % GreenFibre® 872



Structure – medium
pH-value (H_2O) – 6.0
Fertilisation (g/l) – 1.0
Extra trace elements – √

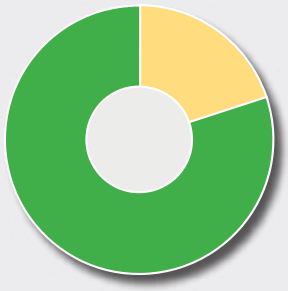
Water capacity – +++
Air capacity / drainage – +++
Water uptake – ++++

Characteristics – Universal bedding substrate with stable air capacity and extra microbial activity
Use for – Bedding and patio plants, shrubs

*Compared to segment standard with 100% peat (rec. 262), verified in accordance with ISO 14064-1 standard

TerrAktiv® | GreenFibre® medium | Frozen through black peat | White peat (0 – 25 mm)

TS 3 medium basic + GreenFibre® 426



Structure – medium
pH-value (H_2O) – 6.0
Fertilisation (g/l) – 1.0
Extra trace elements – √

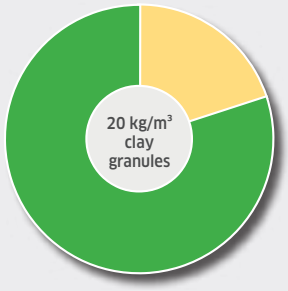
Water capacity – ++++
Air capacity / drainage – ++
Water uptake – +++

Characteristics – Good water retention combined with improved porosity
Use for – Bedding plants, perennials

*Compared to segment standard with 100% peat (rec. 425), verified in accordance with ISO 14064-1 standard

GreenFibre® medium | White peat, moderately decomposed (0 – 25 mm)

TS 3 medium basic with clay + GreenFibre® 441



Structure – medium
pH-value (H_2O) – 6.0
Fertilisation (g/l) – 1.0
Extra trace elements – √

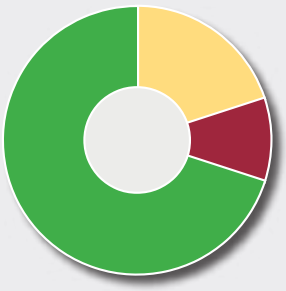
Water capacity – ++++
Air capacity / drainage – ++
Water uptake – ++++

Characteristics – Good water retention combined with improved porosity and extra nutrient buffer
Use for – Bedding plants, perennials, pot herbs

*Compared to segment standard with 100% peat (rec. 404), verified in accordance with ISO 14064-1 standard

GreenFibre® medium | White peat, moderately decomposed (0 – 25 mm)

TS 3 medium basic with 10 % coir + 20 % GreenFibre® 6F6



Structure – medium
pH-value (H_2O) – 6.0
Fertilisation (g/l) – 1.0
Extra trace elements – √

Water capacity – ++++
Air capacity / drainage – ++
Water uptake – ++++

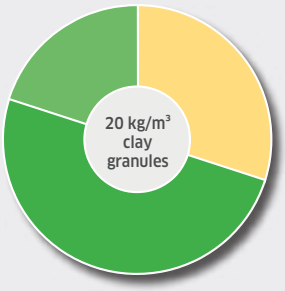
Characteristics – Good water retention and quick water uptake
Use for – Bedding and patio plants, perennials, pot herbs

26 % less CO_2*

*Compared to segment standard with 100% peat (rec. 425), verified in accordance with ISO 14064-1 standard

GreenFibre® medium | Coir | White peat, moderately decomposed (0 – 25 mm)

TS 3 medium with clay + 30 % GreenFibre® 3B2



Structure – medium
pH-value (H_2O) – 6.0
Fertilisation (g/l) – 1.0
Extra trace elements – √

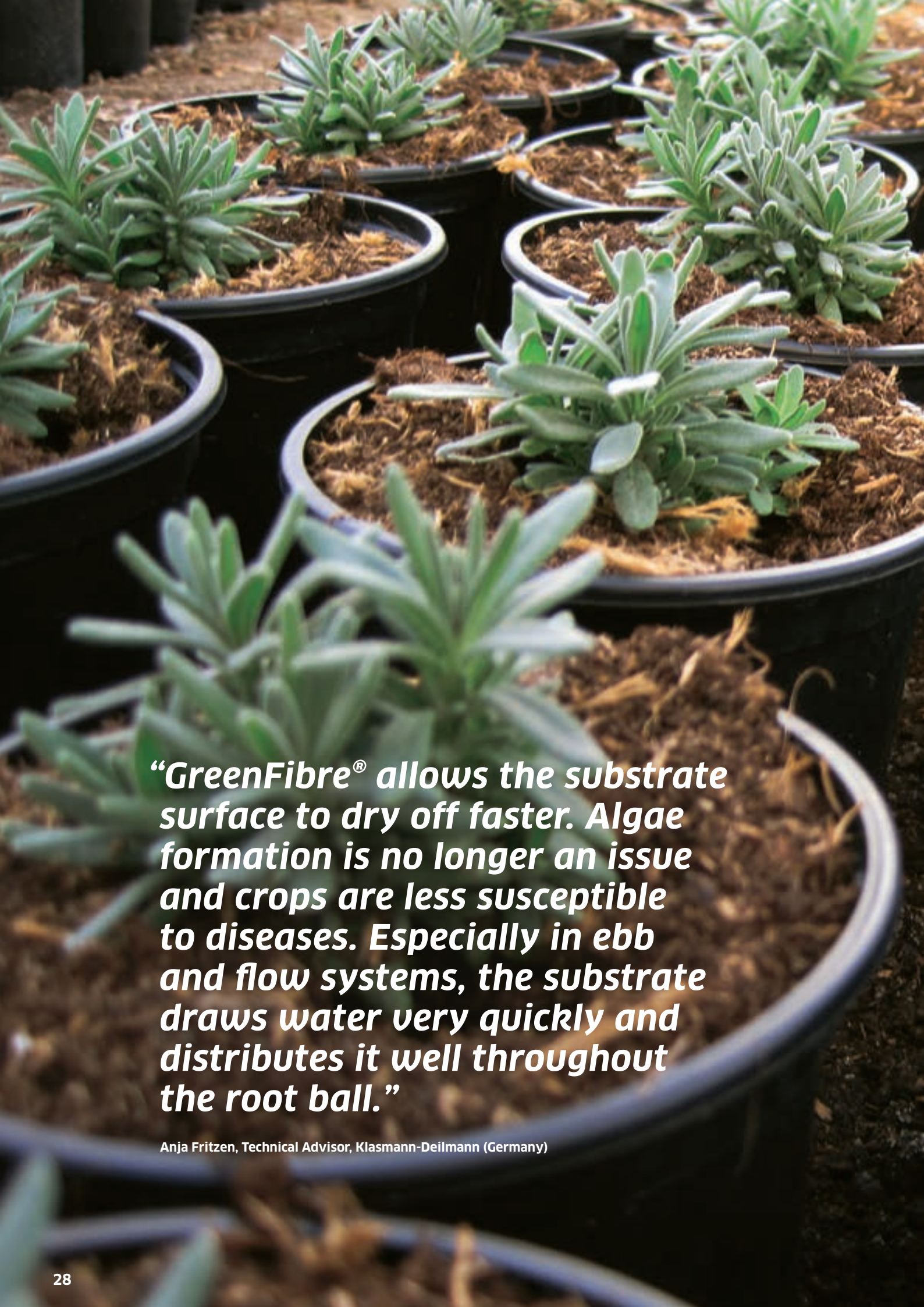
Water capacity – +++
Air capacity / drainage – +++
Water uptake – ++++

Characteristics – Very stable structure, improved drainage, with extra nutrient buffer
Use for – Bedding plants, pot plants, perennials

28 % less CO_2*

*Compared to segment standard with 100% peat (rec. 404), verified in accordance with ISO 14064-1 standard

GreenFibre® medium | White peat, moderately decomposed (0 – 25 mm) | White sod peat (10 – 25 mm)



"GreenFibre® allows the substrate surface to dry off faster. Algae formation is no longer an issue and crops are less susceptible to diseases. Especially in ebb and flow systems, the substrate draws water very quickly and distributes it well throughout the root ball."

Anja Fritzen, Technical Advisor, Klasmann-Deilmann (Germany)

Find out more about our
ADVANCED Bedding Substrates

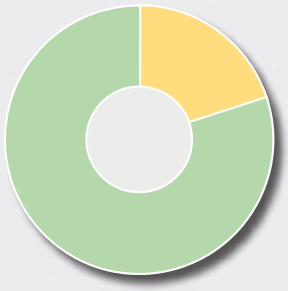
Potting Substrates

Substrates for growing on of indoor pot plants

SUBSTRATES Advanced

TS 1 medium basic + GreenFibre®

814



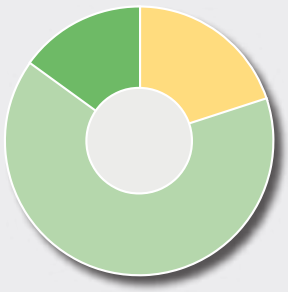
Structure	–	medium
pH-value (H_2O)	–	6.0
Fertilisation (g/l)	–	1.0
Extra trace elements	–	√
Water capacity	–	+++
Air capacity / drainage	–	++
Structural stability	–	++++
Characteristics	–	Extra light, free flowing, with improved drainage
Use for	–	Salt-sensitive ornamental plants

*Compared to segment standard with 100% peat (rec. 085), verified in accordance with ISO 14064-1 standard

GreenFibre® medium · White peat (0 – 25 mm)

TS 2 medium basic + GreenFibre®

6X7

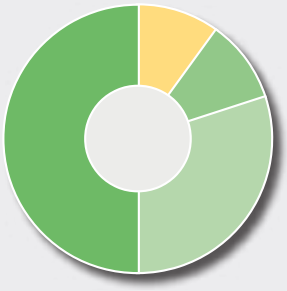


Structure	–	medium
pH-value (H_2O)	–	6.0
Fertilisation (g/l)	–	2.0
Extra trace elements	–	√
Water capacity	–	+++
Air capacity / drainage	–	++
Structural stability	–	++++
Characteristics	–	Extra light, good drainage, for pot plants with higher nutrient demand
Use for	–	Geranium, Fuchsia, Chrysanthemum

*Compared to segment standard with 100% peat (rec. 420), verified in accordance with ISO 14064-1 standard

GreenFibre® medium · White peat (0 – 25 mm) · White sod peat (5 – 15 mm)

TS 4 medium + 10 % GreenFibre® 1R4



Structure – medium
pH-value (H_2O) – 6.0
Fertilisation (g/l) – 1.0
Extra trace elements – √

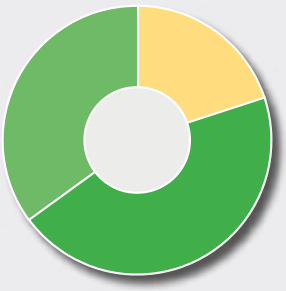
Water capacity – +++
Air capacity / drainage – ++++
Structural stability – +++++

Characteristics – Extra light potting mix with improved structural stability, ideal for ebb-flow irrgation systems
Use for – Ornamental plants, foliage plants

*Compared to segment standard with 100% peat (rec. 602), verified in accordance with ISO 14064-1 standard

GreenFibre® medium · White peat fibres (0 – 30 mm) · White peat (0 – 25 mm) · White sod peat (10 – 25 mm)

TS 4 PLUS medium + GreenFibre® 616



Structure – medium
pH-value (H_2O) – 6.0
Fertilisation (g/l) – 1.0
Extra trace elements – √

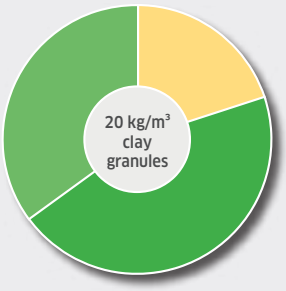
Water capacity – +++
Air capacity / drainage – +++
Structural stability – ++++

Characteristics – High structural stability and increased water retention
Use for – Ornamental plants, foliage plants

*Compared to segment standard with 100% peat (rec. 608), verified in accordance with ISO 14064-1 standard

GreenFibre® medium · White peat, moderately decomposed (0 – 25 mm) · White sod peat (10 – 25 mm)

TS 4 PLUS medium with clay + GreenFibre® 816



Structure – medium
pH-value (H_2O) – 6.0
Fertilisation (g/l) – 1.0
Extra trace elements – √

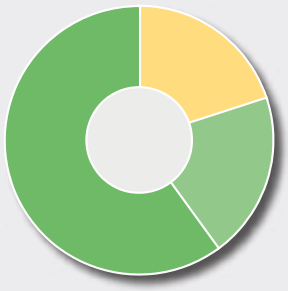
Water capacity – +++
Air capacity / drainage – +++
Structural stability – ++++

Characteristics – Good structure, increased water retention, extra nutrient buffer
Use for – Ornamental plants, foliage plants

*Compared to segment standard with 100% peat (rec. 690), verified in accordance with ISO 14064-1 standard

GreenFibre® medium · White peat, moderately decomposed (0 – 25 mm) · White sod peat (10 – 25 mm)

TS 4 GreenPlant coarse + GreenFibre® T89



Structure – coarse
pH-value (H_2O) – 6.0
Fertilisation (g/l) – 1.0
Extra trace elements – √

Water capacity – ++
Air capacity / drainage – +++++
Structural stability – +++++

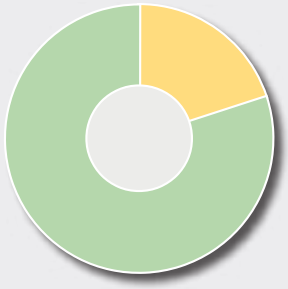
Characteristics – Very high air capacity and drainage for best root development
Use for – Foliage plants, Anthurium, Calathea, Cyclamen

19 % less CO_2*

*Compared to segment standard with 100% peat (rec. 681), verified in accordance with ISO 14064-1 standard

GreenFibre® medium · White peat fibres coarse-fibrous · White sod peat (25 – 45 mm)

Base Substrate 2 medium basic + GreenFibre® 6X8



Structure – medium
pH-value (H_2O) – 6.0
Fertilisation (g/l) – none
Extra trace elements – √

Water capacity – +++
Air capacity / drainage – ++
Structural stability – ++++

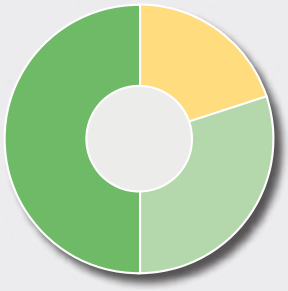
Characteristics – To mix with fertiliser on site or alongside liquid feed
Use for – Bedding and pot plants

19 % less CO_2*

*Compared to segment standard with 100% peat (rec. 422), verified in accordance with ISO 14064-1 standard

GreenFibre® medium · White peat (0 – 25 mm)

Base Substrate 4 medium + GreenFibre® 523



Structure – medium
pH-value (H_2O) – 6.0
Fertilisation (g/l) – none
Extra trace elements – √

Water capacity – ++
Air capacity / drainage – +++
Structural stability – ++++

Characteristics – To mix with fertiliser on site or alongside liquid feed
Use for – Ornamental plants, foliage plants

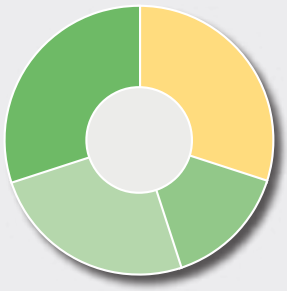
19 % less CO_2*

*Compared to segment standard with 100% peat (rec. 525), verified in accordance with ISO 14064-1 standard

GreenFibre® medium · White peat (0 – 25 mm) · White sod peat (10 – 25 mm)

Base Substrate 4 coarse + GreenFibre®

9B4



Structure – coarse
pH-value (H_2O) – 6.0
Fertilisation (g/l) – none
Extra trace elements – √

Water capacity – ++
Air capacity / drainage – ++++
Structural stability – +++++

Characteristics – To mix with fertiliser on site or alongside liquid feed
Use for – Ornamental plants, foliage plants

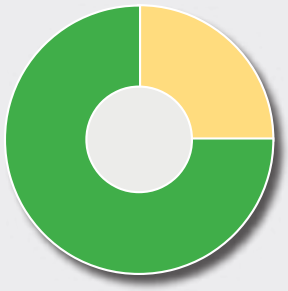
28 % less CO_2*

*Compared to segment standard with 100% peat (rec. 414), verified in accordance with ISO 14064-1 standard

GreenFibre® medium | White peat fibre (70 mm) | White peat (0 – 25 mm) | White sod peat (25 – 45 mm)

Base Substrate 5 PLUS + GreenFibre®

540



Structure – medium
pH-value (H_2O) – 6.0
Fertilisation (g/l) – none
Extra trace elements – √

Water capacity – ++++
Air capacity / drainage – ++
Structural stability – +++

Characteristics – To mix with fertiliser on site or alongside liquid feed
Use for – Bedding and pot plants

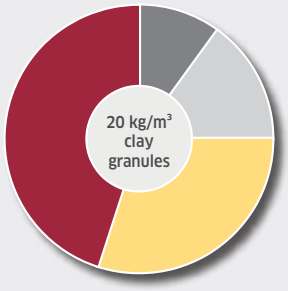
23 % less CO_2*

*Compared to segment standard with 100% peat (rec. 600), verified in accordance with ISO 14064-1 standard

GreenFibre® medium | White peat, moderately decomposed (0 – 25 mm)

Substrate 5 TerrAktiv® / coir + GreenFibre®

5L9



Structure – medium
pH-value (H_2O) – 6.5
Fertilisation (g/l) – 1.0
Extra trace elements – √

Water capacity – ++
Air capacity / drainage – ++++
Structural stability – ++++

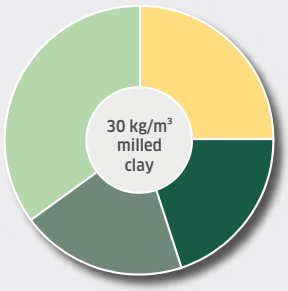
Characteristics – Universal potting mix with strong drainage and fast water uptake
Use for – Poinsettia, Cyclamen, Begonia

82 % less CO_2*

*Compared to segment standard with 100% peat (rec. DKY), verified in accordance with ISO 14064-1 standard

TerrAktiv® | Perlite coarse (1 – 7.5 mm) | GreenFibre® medium | Coir

Substrate 5 with clay + GreenFibre® 666



Structure – medium
pH-value (H_2O) – 6.0
Fertilisation (g/l) – 1.0
Extra trace elements – √

Water capacity – +++
Air capacity / drainage – +++
Structural stability – +++

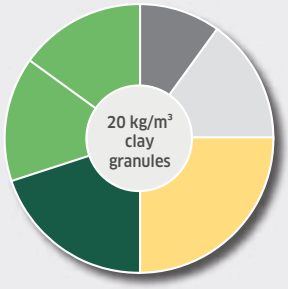
Characteristics – Allround potting substrate. Good capillary distribution, with extra nutrient buffer
Use for – Cyclamen, Geranium, perennials, bedding plants

23 % less CO_2*

*Compared to segment standard with 100% peat (rec. DKY), verified in accordance with ISO 14064-1 standard

GreenFibre® medium · Frozen through black peat · Peat fibres · White peat (0 – 25 mm)

Substrate 5 TerrAktiv® / perlite + GreenFibre® 6L7



Structure – medium
pH-value (H_2O) – 6.0
Fertilisation (g/l) – 1.2
Extra trace elements – √

Water capacity – ++
Air capacity / drainage – ++++
Structural stability – ++++

Characteristics – Allround potting mix withincreased drainage and air capacity
Use for – Ornamental plants, Cyclamen, Geranium, perennials

38 % less CO_2*

*Compared to segment standard with 100% peat (rec. DKY), verified in accordance with ISO 14064-1 standard

TerrAktiv® · Perlite coarse (1 – 7.5 mm) · GreenFibre® medium · Frozen through black peat · White sod peat (5 – 15 mm) · White sod peat (10 – 25 mm)

"Helleborus is a niche product. This is where the right substrate recipe is essential. We see great success with TerrAktiv® and GreenFibre® in our mixture. The plants are stronger, more compact and resistant. We are very grateful to have such a reliable partner in Klasmann-Deilmann."

Thierry van Paemel, Satisfied ADVANCED customer
Co-owner of BVBA Helleborus, a leading producer of Helleborus in Belgium

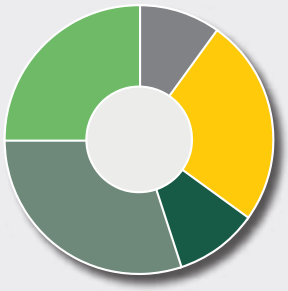
Find out more about our
ADVANCED Potting Substrates

Container Substrates

Substrates for growing on of shrubs and trees as well as ericaceous crops

SUBSTRATES Advanced

Container Substrate 2 coarse with 10 % TerrAktiv® + 25 % GreenFibre® 6X9



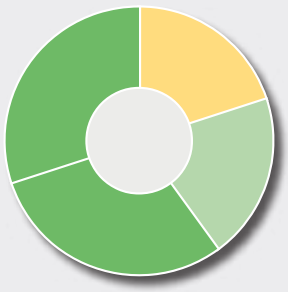
Structure	–	coarse-fibrous
pH-value (H_2O)	–	5.7
Fertilisation (g/l)	–	none
Extra trace elements	–	√
Water capacity	–	++
Air capacity / drainage	–	++++
Structural stability	–	+++++
Characteristics	–	Extra water and nutrient buffer plus strong microbial activity
Use for	–	for healthy plants Trees, conifers

30 % less CO_2*

*Compared to segment standard with 100% peat (rec. 250), verified in accordance with ISO 14064-1 standard

TerrAktiv® · GreenFibre® coarse · Frozen through black peat · Peat fibres · White sod peat (25 – 45 mm)

TS 4 coarse + 20 % GreenFibre® 1G8



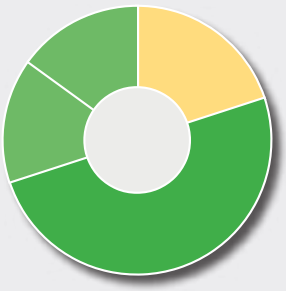
Structure	–	coarse
pH-value (H_2O)	–	5.5
Fertilisation (g/l)	–	1.0
Extra trace elements	–	√
Water capacity	–	++
Air capacity / drainage	–	++++
Structural stability	–	+++++
Characteristics	–	Allround container substrate with good capillary distribution
Use for	–	Shrubs and trees, foliage plants

19 % less CO_2*

*Compared to segment standard with 100% peat (rec. 604), verified in accordance with ISO 14064-1 standard

GreenFibre® medium · White peat (0 – 25 mm) · White sod peat (10 – 25 mm) · White sod peat (25 – 45 mm)

TS 4 PLUS coarse + GreenFibre® 620



Structure – coarse
pH-value (H_2O) – 6.0
Fertilisation (g/l) – 1.0
Extra trace elements – √

Water capacity – +++
Air capacity / drainage – +++
Structural stability – ++++

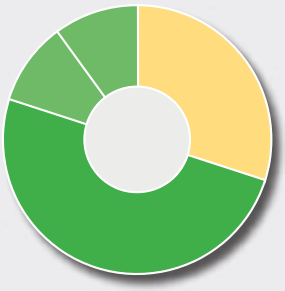
Characteristics – Allround container substrate with increased water retention
Use for – Shrubs and trees, foliage plants

18 % less CO_2*

*Compared to segment standard with 100% peat (rec. 609), verified in accordance with ISO 14064-1 standard

GreenFibre® medium | White peat, moderately decomposed (0 – 25 mm) | White sod peat (10 – 25 mm) | White sod peat (25 – 45 mm)

TS 4 PLUS coarse + 30 % GreenFibre® P24



Structure – coarse
pH-value (H_2O) – 5.5
Fertilisation (g/l) – 1.0
Extra trace elements – √

Water capacity – +++
Air capacity / drainage – +++
Structural stability – ++++

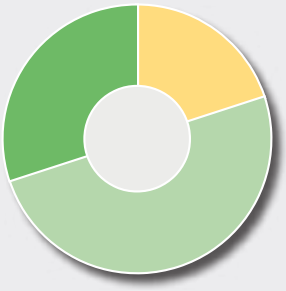
Characteristics – High structural stability and increased drainage
Use for – Shrubs and trees, foliage plants

28 % less CO_2*

*Compared to segment standard with 100% peat (rec. 609), verified in accordance with ISO 14064-1 standard

GreenFibre® medium | White peat, moderately decomposed (0 – 25 mm) | White sod peat (10 – 25 mm) | White sod peat (25 – 45 mm)

TS 4 Ericaceous + GreenFibre® 254



Structure – medium
pH-value (H_2O) – 4.8
Fertilisation (g/l) – none
Extra trace elements – √

Water capacity – ++
Air capacity / drainage – ++++
Structural stability – +++++

Characteristics – For crops with acidic soil requirements
Use for – Ericaceous plants, Gardenia, Camelia, Gaultheria

19 % less CO_2*

*Compared to segment standard with 100% peat (rec. 214), verified in accordance with ISO 14064-1 standard

GreenFibre® medium | White peat (0 – 25 mm) | White sod peat (10 – 25 mm)

„In recent years we have been confronted with customers asking for more ecologically responsible substrates. Supported by Klasmann-Deilmann we have achieved to use 20 % GreenFibre® in our crops. I feel this has a positive contribution to our crop management, as we get a better water balance and the substrate is easier to rewet."

Lode De Waele, Satisfied ADVANCED customer, Owner "De Waele Handelskwekerij BVBA", a leading producer of Container plants in Belgium

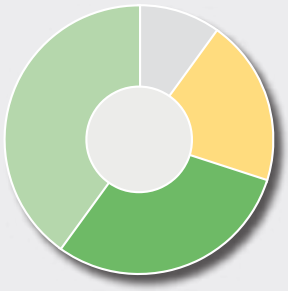
Find out more about our
ADVANCED Container Substrates

Soft Fruit Substrates

Substrates for a sustainable cultivation of blueberries, strawberries and other soft fruit

SUBSTRATES Advanced

TS 1 medium Blueberry propagation 382



Structure	–	medium
pH-value (H_2O)	–	4.8
Fertilisation (g/l)	–	0.3
Extra trace elements	–	√
Water capacity	–	+++
Air capacity / drainage	–	+++
Structural stability	–	++++
Characteristics	–	For propagation in pots and large modular trays
Use for	–	Blueberry young plants

*Compared to segment standard with 100% peat (rec. 085), verified in accordance with ISO 14064-1 standard

Perlite coarse (1 – 7.5 mm) · GreenFibre® medium · White sod peat (5 – 15 mm) · White peat (0 – 25 mm)

TS 4 medium Blueberry with perlite + coir Z33

Structure	–	medium
pH-value (H_2O)	–	4.8
Fertilisation (g/l)	–	0.3
Extra trace elements	–	√
Water capacity	–	++
Air capacity / drainage	–	++++
Structural stability	–	++++
Characteristics	–	Fruit production in containers > 2 L. Provides stable air capacity and drainage
Use for	–	Blueberry

*Compared to segment standard with 100% peat (rec. 602), verified in accordance with ISO 14064-1 standard

Perlite coarse (1 – 7.5 mm) · Coir · White peat (0 – 25 mm) · White sod peat (10 – 25 mm)

TS 4 medium Blueberry with perlite + coco fibre — V58

Structure – coarse
pH-value (H_2O) – 4.8
Fertilisation (g/l) – 0.3
Extra trace elements – √

Water capacity – ++
Air capacity / drainage – ++++
Structural stability – +++++

Characteristics – Fruit production in containers up to 100 L. Strong drainage for outdoor cultivation. Suitable also with irrigation water high in EC

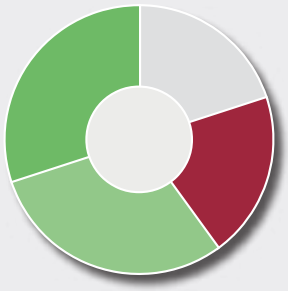
Use for – Blueberry

38 % less CO_2*

*Compared to segment standard with 100% peat (rec. 602), verified in accordance with ISO 14064-1 standard

Perlite coarse (1 - 7.5 mm) · Coco fibres · Peat fibres · White sod peat (10 - 25 mm)

TS 4 coarse Blueberry with coir + 20 % Perlite — 979



Structure – coarse-fibrous
pH-value (H_2O) – 4.8
Fertilisation (g/l) – none
Extra trace elements – √

Water capacity – ++
Air capacity / drainage – ++++
Structural stability – +++++

Characteristics – Indoor and outdoor cultivation in containers up to 100 L. High structural stability with optimal water and air capacity

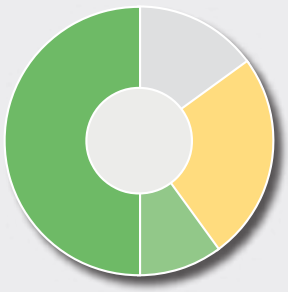
Use for – Blueberry

28 % less CO_2*

*Compared to segment standard with 100% peat (rec. 604), verified in accordance with ISO 14064-1 standard

Perlite coarse (1 - 7.5 mm) · Coir · White peat fibres (0 - 70 mm) · White sod peat (25 - 45 mm)

TS 4 coarse Blueberry with perlite + GreenFibre® — U55



Structure – coarse-fibrous
pH-value (H_2O) – 4.8
Fertilisation (g/l) – 0.3
Extra trace elements – √

Water capacity – +
Air capacity / drainage – +++++
Structural stability – +++++

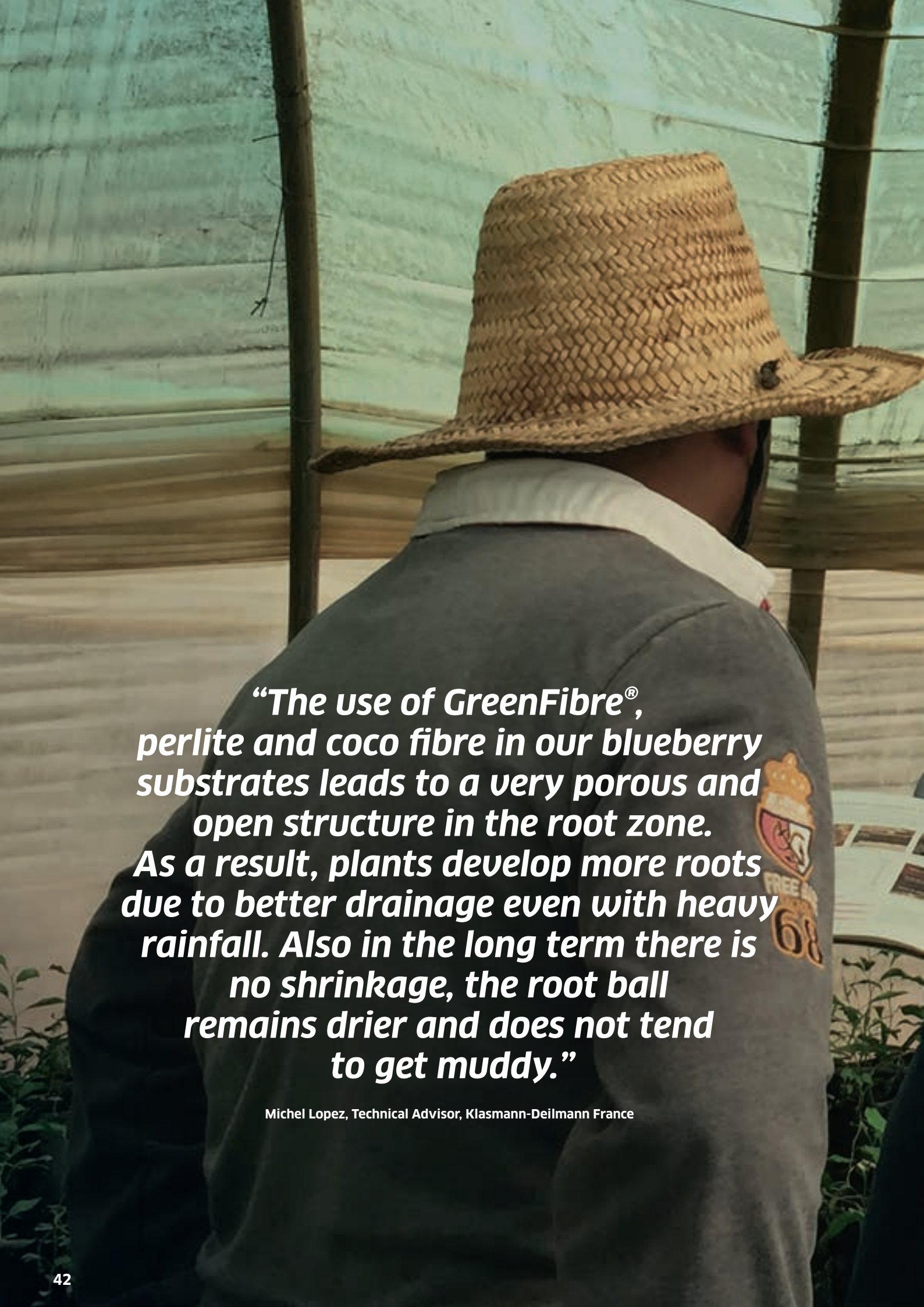
Characteristics – Indoor and outdoor cultivation in containers up to 100 L. Ideal for use also with high EC irrigation water and areas with heavy rain fall

Use for – Blueberry

32 % less CO_2*

*Compared to segment standard with 100% peat (rec. 604), verified in accordance with ISO 14064-1 standard

Perlite coarse (1 - 7.5 mm) · GreenFibre® medium · White peat fibres (0 - 70 mm) · White sod peat (10 - 25 mm)

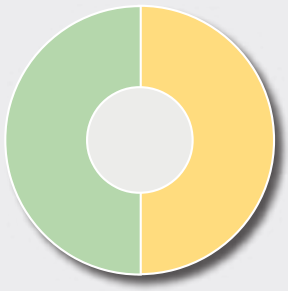


"The use of GreenFibre®, perlite and coco fibre in our blueberry substrates leads to a very porous and open structure in the root zone. As a result, plants develop more roots due to better drainage even with heavy rainfall. Also in the long term there is no shrinkage, the root ball remains drier and does not tend to get muddy."

Michel Lopez, Technical Advisor, Klasmann-Deilmann France

Find out more about our
ADVANCED Blueberry Substrates

TS 1 medium basic Strawberry with 50 % GreenFibre® X68



GreenFibre® medium · White peat (0 – 25 mm)

Structure – medium
pH-value (H_2O) – 5.7
Fertilisation (g/l) – 0.5
Extra trace elements – √

Water capacity – ++
Air capacity / drainage – ++++
Structural stability – ++++

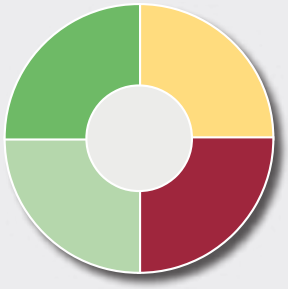
Characteristics – Yearround strawberry cultivation in rack systems. Perfectly suitable for protected cultivation due to well balanced water and air capacity

Use for – Strawberry in gutter systems

46 % less CO_2*

*Compared to segment standard with 100% peat (rec. 085), verified in accordance with ISO 14064-1 standard

TS 4 medium Strawberry with 25 % coir + 25 % GreenFibre® Y77



GreenFibre® medium · Coir · White peat (0 – 25 mm) · White sod peat (10 – 25 mm)

Structure – medium
pH-value (H_2O) – 5.7
Fertilisation (g/l) – 0.5
Extra trace elements – √

Water capacity – ++
Air capacity / drainage – ++++
Structural stability – ++++

Characteristics – Single and double cropping strawberries on rack system, in troughs and containers

Use for – Strawberry, raspberry and other soft fruit

43 % less CO_2*

*Compared to segment standard with 100% peat (rec. 602), verified in accordance with ISO 14064-1 standard

Container Substrate 3 Soft Fruit coir 237

Coco fibres · Coir pith, buffered

Structure – medium-fibrous
pH-value (H_2O) – 6.2
Fertilisation (g/l) – none
Extra trace elements – √

Water capacity – +++
Air capacity / drainage – +++
Structural stability – ++++

Characteristics – Fully coir based solution with good structural stability and drainage

Use for – Strawberry, raspberry and other soft fruit

87 % less CO_2*

*Compared to segment standard with 100% peat (rec. 250), verified in accordance with ISO 14064-1 standard

"Our substrates with GreenFibre® for strawberries in gutters have proven to be a great alternative to coir. GreenFibre® ensures structural stability and drainage also for perennial cultivation. Moreover, GreenFibre® leads to a lower substrate weight and less CO_2 emissions. As a renewable raw material, it is locally sourced from sustainably managed forestry and well available all year."

Frank Lenkens, Soft Fruit Specialist, Klasmann-Deilmann Benelux (Netherlands)

Find out more about our
ADVANCED Strawberry Substrates

ADVANCED Substrates – The forms of supply

Our substrates are available in following standard forms

- **Packaged goods: 70-litre-bags**
- **Packaged goods: 210-litre-bags**
- **Big Bales 2.5 – 6.0 m³**
- **Bulk**

For all growing media manufactured by Klasmann-Deilmann, the volume is measured in accordance with European Standard EN 12580. The standard lays down the procedure to be used for measuring the volume of growing media and other peat products which are supplied in bulk or as packaged products. The quantity indication generally relates to the quantity at the time of production.

Average substrate consumption for different pot sizes

Pot size ø in cm	Substrate requirement in l for 1,000 pots**	Number of pots per m³ substrate*
6	130 – 160	6900
8	230 – 280	3,920
9	330 – 380	2,820
9 x 9 x 9,5	600 – 650	1,600
10	460 – 510	2,060
10 x 10 x 11,5	920 – 970	1,050
11	670 – 720	1,440
12	880 – 930	1,150
13	1,100 – 1,200	870
1.5 l cont.	1,700 – 2,000	540
2.0 l cont.	2,300 – 2,600	410

* Average figures only, based on the volume as per EN 12580. Variations may arise in particular through different pot types, varying substrate moisture levels and the compression during potting. The size of the seedling root ball also has a significant impact.

More advanced product solutions

Containermulch

Containermulch is an environmentally friendly top dressing for pots and containers to prevent the growth of algae and weeds. It is made of softwood from sustainably managed forests (PEFC-certified). The wood has been thermally treated to avoid phytosanitary risks.

It is fast drying, permeable to water and breaks up water drops, so the top layer does not become air-tight. This makes it more difficult for algae, mosses and weeds to grow. By using Containermulch, the substrate moisture remains more homogeneous and the plants also look visually appealing for marketing. Containermulch can be processed mechanically with all automatic spreaders and is also very suitable for mulching planting beds.

Growcoon

Growcoon is a biodegradable propagation plug with a stable but flexible open net structure. The Growcoon forms a stable root ball when used in combination with a high-quality seedling substrate. It is the optimal system for all types of propagation methods. It proves to be particularly effective in sowing, rooting of cuttings, grafting and growing-on of young plants from tissue culture as well as in vertical farming and hydroponic systems. It is available in many different standard sizes and suitable for all common tray sizes. In addition, there is a special Growcoon range for hydroponics.

Log & Solve

Log & Solve is a digital tool for growers to collect relevant cultivation data in a central web-based platform. The new Log & Solve dashboard allows better insight in your crop to increase the efficiency of cultivation.

Log & Solve supports growers in their crop management by using analytical data and sensor data. It organises all crop-related information which is then automatically bundled, evaluated and graphically visualised. On this basis, undesirable developments in crops can be identified and averted more quickly.

The Klasmann-Deilmann Group

Klasmann-Deilmann is the leading group of companies in the international substrate industry with numerous sales and production companies in Europe, Asia and America, as well as a network of sales and production partners on all continents. Our growing media provide a vital basis for the growth of vegetables, fruit, edible mushrooms, herbs, ornamental plants, trees and shrubs. They ensure the success of our partners and customers in commercial horticulture and are an essential part of the value chain in the food industry.

Our product portfolio includes growing media and substrate constituents such as peat, wood fibre, green compost, cocos and perlite amongst others. We also market the Growcoon propagation system and are establishing ourselves as a provider of digital solutions for nurseries with the Log & Solve online platform.

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we make it grow

Overview of our business fields

SUBSTRATES
- SUBSTRATES Advanced
- SUBSTRATES ProLine
- SUBSTRATES Florabella®
- SUBSTRATES Containermulch

RAW MATERIALS
- RAW MATERIALS GreenFibre®
- RAW MATERIALS TerrAktiv®
- RAW MATERIALS Peat
- RAW MATERIALS Cocos
- RAW MATERIALS Perlite

INNOVATION
- INNOVATION Growcoon
- INNOVATION Log & Solve
- INNOVATION Peat Bog Restoration
- INNOVATION Academy

BIOENERGY
- BIOENERGY Wood Chips
- BIOENERGY Wood Trading
- BIOENERGY Wood Services

DISCLAIMER

The information in this brochure is based on our current knowledge and does not claim to be complete or correct. We reserve the right to make changes. We do not assume any guarantee or liability for successful cultivation, as the use of our products must be adapted to the individual site, storage and cultivation conditions of the respective nursery, which is beyond our knowledge and influence. The information in this brochure cannot replace individual advice. They are neither binding nor part of a consulting or information contract.

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we make it grow

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