



You are wondering why we guarantee crop safety?

Simply because we can!

Peat substitutes perfectly combined.

"Horticulture is currently undergoing an unprecedented paradigm shift in the area of soils of substrates. Peat, a raw material that has provided security for decades, is becoming less and less available because it is considered a fossil raw material with a negative CO_2 balance. According to the demands of the BMEL (Federal Ministry of Food and Agricultural), professional horticulture should be largely peat-free by 2030. This presents the entire industry with major challenges that need to be tackled together.

We at Gramoflor have been keeping a close eye on this development for many years and have set the necessary course for constantly increasing peat reduction at an early stage. The topic of peat reduction has the highest priority in the company, so I can promise you: We can do it!

With the perfect combination of the best peat substitutes, we reduce the peat content of your substrates to a maximum and guarantee you the goal that is so important to you in this area, namely cultivation safety.

Peat reduction at Gramoflor is currently main focused on our three pillars: The premium wood fibre **LIGNO**FIBRE® form our own production and currently in five different types, as well as gramoCOCOPlus and substrate compost from our own processing. These glorious three are perfectly combined by us so that we can produce future-proof substrates for every type of cultivation in our own factories, whether peat-reduced or peat-free.

Our future is based on experience and knowledge, simply because we can!"

Jama-

Josef Gramann Managing Director



PERFECTLY COMBINED - PEAT REDUCED: OUR THREE PILLARS OF PEAT REDUCTION.

1. The wood fibre LIGNOFIBRE®

When it comes to describing the ideal peat substitute for substrates and soils, our own wood fibre with the brand name **LIGNO**FIBRE® provides all the necessary properties for this.

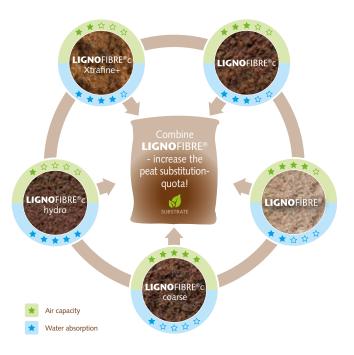
With using the **latest refining technology**, we are producing this quality wood fibre since 2018 with our **own machine** – and because of the increasing demand a second machine is already in the starting blocks. In this way, we obtain a particularly high-quality substrate raw material with a **good CO₂ balance** from the renewable and regional residual material wood chips (certified quality) by means of thermal-mechanical refining.

The **five structural variants** now available, ranging from extra-fine to coarse, are the ideal replacement for peat in substrates and soils and are suitable for the entire range of different cultivations, from pressed pots to containers. They can be **ideally combined** with each other but also with other peat substitutes and ensure a maximum peat reduction while ensuring crop safety.

Thanks to these different structural variants almost all **physical** substrate requirements can be met.

In addition, the company's own production ensures availability and quality, which is just as relevant and important.

Increased usage of peat substitution by combining well our five woodfibre qualities



The general advantages of the wood fibre **LIGNO**FIBRE® are in summary:

- · effective combinability for maximum peat reduction
- · local and reliable availability
- · good drainage properties of the coarser variants
- · good water storage capacity of the finer variants
- the well-balanced air supply
- rapid rewettability
- · structural stability, i.e. low shrinkage
- rapid drying of the substrate surface
- · low N-fixation (nitrogen-stabilised)











All varieties are RAL quality assured and also FiBL listed for use in organic horticulture.



Own wood fibre machines with latest refining technology

2. Coconut products with the plus: gramoCOCOPlus

Cocopeat (coconut pulp) and Cocofibre (coconut fibres) are sufficiently available in the countries of origin such as India and Sri Lanka as residual materials from coconut processing and have meanwhile also proven themselves excellently as peat substitutes in professional horticulture.

At Gramoflor, these coconut products are listed under the raw material category **gramoCOCOPlus**, as we offer additional added value through our **own raw material processing**.

On site at Gramoflor, the raw material Cocopeat is then further processed by Gramoflor itself using a specially developed process, taking into account the respective cultivation requirements. A large part of the so-called leaching of unwanted salts/nutrients thus takes place under controlled conditions. Gramoflor is therefore able to prepare the cocopeat and differentiate it into **three types** so that it can be tailored even more precisely to the respective cultivation requirements in terms of salt content and physical properties.



Good to know:

Good to know: Coco products are basically much better than their reputation in terms of environmental compatibility. Despite the long transport routes, Cocopeat and Cocofibre have a relatively good CO₂ balance¹. They are renewable and are transported very compactly by ship to the destination ports near the production sites.

Another advantage in terms of the ${\rm CO_2}$ balance is that they are residual materials whose recycling is in line with the circular economy. In addition, the coco products purchased by Gramoflor are manufactured in accordance with the SA 8000 social standards.

Source (1): Torfersatzsubstrate für den Erwerbsgartenbau – Ein Beitrag für nachhaltige Landnutzung in Niedersachsen, Dissertation von Simon Grießer, 2016 This enables continuity in the chemical properties and therefore a particularly high level of quality in the use of coco products.

Three Cocopeat quality levels are therefore offered:

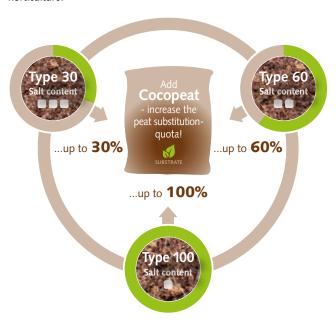






- Type 30 for proportions in substrates up to 30%
- Type 60 for proportions in substrates up to 60%
- **Type 100** for proportions in substrates of up to 100% and for particularly sensitive crops. Chemical buffering is no longer necessary.

All varieties are RAL quality assured and also FiBL listed for use in organic horticulture.





Own raw material processing and classification in three types

3. Quality compost from own processing method

Substrate compost is another renewable raw and residual material that is obtained from green waste in the spirit of a smart circular economy. However, it can only be used for peat-reduced substrates and soils if strict quality requirements are met.

The substrate compost used by Gramoflor comes from long-term partnerships with regional suppliers from the waste management sector, who know these high requirements and also achieve them with their compost.

We only use high-quality green waste compost according to the Bundesgütegemeinschaft Kompost (Federal Compost Quality Assurance Association) with rotting grade V.

And this compost material is further processed in the Gramoflor production plants by pre-screening, resulting in a more homogeneous product with further application possibilities in soils and substrates.

The RAL quality assurance guarantees a continuously consistent high quality in order to fulfil the requirements of a substrate for professional horticulture and the cultivation safety necessary there.



Quality requirements for substrate compost

A compost suitable for professional substrates has a good pH buffering and therefore has a stabilising effect. In addition, it has a good water retention capacity in the substrates. It is also a compost with a relatively low salt content and a balanced amount of trace elements with a good binding of nutrients. Via microbial revitalisation, the compost can contribute to the health of the plant.





This is the link to the **Substrate-Navigator**



A quick an easy tool to find your suitable substrate in our diversified product assortment.

Any requirement for a peat-reduced or peat-free commercial substrate which guarantuees crop safety? Just do not hesitate to get in touch with us: We seriously can offer solutions.



Peat substitutes perfectly combined.



Quality from the start!



