

From wood flour to biopolymer

We are a medium-sized company based in Visbek in the Oldenburg Münsterland region. Our roots lie in the production and distribution of wood flour, wood fibers and wood granules. True to the motto **'MODERN MATERIAL MILLING'**, we have also focused on the production of fibers from other natural materials, preferably from waste streams. In addition to sawdust and wood chips, the processing of grain husks has also been successfully realized. The untreated raw materials are sourced regionally from the wood processing and food industries within a radius of approximately 200 km from our premises.

Innovation and the courage to try new things are deeply rooted in our company DNA. With our many years of experience in the preparation and processing of various waste materials, we have also looked at how we can return them to the material cycle in a value-added and meaningful way. In 2019, we started researching and developing **bioplastics with natural fibers**. Our primary goal was to create a sustainable, bio-based alternative to conventional plastics. Today, we are proud to have a wide range of natural fiber compounds for various applications in our portfolio, which we market under the brand **arweco 'ADVANCED BIOBASED COMPOUNDS'**.

Fields of activity

Agricultural, forestry and horticultural products: Mulching films, bite and sweep protection (tree protection), plant pots (bio-based and home compostable), plant boxes, seedling pots, etc. Packaging: single-use, multiple-use, caps, etc.

Toys: beach toys (shovel, bucket, etc.), play bricks, play figures, games, etc.

Office and tool supplies: sorting boxes, storage boxes, ballpoint pens, sleeves for glue sticks, holders for gardening supplies or tools, clothes hangers, etc.

Recreation: Golf ball pins/golf tees, frisbees, buckets, garden tools, fertilizer packaging, 3D printing, etc.



ARWECO ADVANCED BIOBASED COMPOUNDS

Foundation

- 2019

Employees

- 65 (Holzmühle Westerkamp GmbH)

Key topics

- Raw material supplier for bio-based and/or biodegradable plastics with natural fibers
- Development and customization of bioplastics for injection molding, extrusion and 3D printing

Key products

- Otura®
- Lignura®



About our compounds

Depending on the application, we offer our natural fiber reinforced bioplastics as **recyclable, bio-based and/or biodegradable**. By flexibly selecting the matrix material and the fiber content, we can precisely adjust the properties of our compounds. We offer oat fiber reinforced plastics under the **Otura®** product line and wood fiber reinforced plastics under the **Lignura®** product line.

Otura®

Otura® are our organic compounds based on natural fibers made from **oat husks**. Large quantities of husks are left over from grain processing. We return this waste material to the material cycle. The oat fibers can be used to achieve a reinforcing effect.

- Fibers from renewable oat hulls
- From organic cultivation and therefore harmless
- Residual material from the food industry
- Natural, light color: good dyeability
- Fiber content up to 50 %
- Less abrasive than glass or carbon fibers
- Choice of bio-based and/or biodegradable biopolymers for recyclable, industrially compostable, home compostable and marine degradable applications
- Conserves finite petrochemical resources and the environment

Lignura®

Lignura® are our organic compounds made from **PEFC-certified wood flour**. We mainly use sawmill by-products to produce our flours. This allows us to utilize this residual material, which is otherwise mainly incinerated.

By compounding the wood fibers, a reinforcing effect (higher stiffness) can be achieved.

- Renewable wood fibers
- PEFC-certified
- Predominantly from sawmill industry waste
- Fiber content up to 40 %
- Natural, woody shade
- Less abrasive than glass or carbon fibers
- Choice of bio-based and/or biodegradable biopolymers for recyclable, industrially compostable, home compostable and marine degradable applications
- Conserves finite petrochemical resources and the environment



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