-lbeno

Fibenol is implementing a new cutting-edge technology to produce materials from wood residues.

Our main products are lignin, sugars and specialty cellulose. These sustainable bio-based materials can be used as replacements for fossil-based materials in producing plastics, construction materials, fuels and many other things.

TIMELINE

2016 - Scouting technologies for wood residues valorization

- 2017 Sunburst[™] technology selected
- 2018 Demo plant funding secured
- 2020 Pilot line operational
- 2022 Commissioning of the demo plant

2023 - Conceptual planning of the first industrial-size plant

Sourcing

We use hardwood residues from forestry and the wood processing industry in Estonia. The residues we use originate only from certified and sustainably managed forests.

Technology

Our unique Sunburst[™] pre-treatment technology that fractionates hardwood residues into lignin, sugar and specialty cellulose with over 90% efficiency.

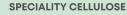
LIGNOVA™

Crude - 86-89% lignin, 5% cellulose Pure - 93-96% lignin, no cellulose

Aromatic biopolymer extracted from wood

Applications:

Plastics Adhesives & resins Foams



Micro-scale specialty cellulose with nano-scale properties

Available in different grades with varying lignin content

Applications:

Concrete Pulp and paper Paints and adhesives



CELLULOSIC SUGARS

C5 sugars - rich in xylose derived from hemicellulose

C6 sugars - rich in glucose derived from cellulose

Applications:

Biofuels Biochemicals Personal care



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Be the first in line to change your product inputs into fully sustainable?



LIGNOVA[™]- High-purity hydrolysis lignin from hardwood res<mark>idues</mark>

Benefits of using LIGNOVA:

- sulfur-free
- no smell
- near-native structure

LIGNOVA[™] comes in two different purities: Crude and Pure.

Cellulosic sugars - Sustainably sourced hardwood sugars

Benefits of using cellulosic sugars:

- highly fermentable
- low inhibitors
- low CO2 footprint and land-use change; non-food competing

Cellulosic sugars are available in two varieties, xylose-rich C5, and glucose-rich C6.

Specialty cellulose - Sustainably sourced specialty cellulose

Benefits of using specialty cellulose:

- nanomaterial characteristic
- strength additive in the paper, by not impairing the drainage of the pulp
- as viscosity modifying agent and enhances the freeze-thaw resistance of concrete
- functional filler in all-cellulose composites
- improves resistance to oxygen, grease, and oil permeability in barrier coatings

Dames - 15

Specialty cellulose is available in different purities: Crude, Blond, and White.

 For more information visit

 ibenol.com/products