

KERATIN FIBERS

Bioextrax has developed a process for the production of keratin fibers from poultry waste (feathers) that has low density, high thermostability, good insulation properties, and are bio-degradable.



Bioextrax was founded in 2014 as a spin-off from the biotechnology department of Lund University. Bioextrax has developed a bio-based platform technology to selectively hydrolyze a number of protein-rich materials, allowing us to turn waste into value. It is a green technology that can contribute to a circular economy and a more sustainable society.

From feathers to fibers

Feathers are cheap, abundant and exhibit unique properties. Currently, more than 95% of the feathers goes to landfills or is burned. Bioextrax has developed a technology to turn this poultry waste into keratin fibers.

The keratin fibers represent the microscopic fibrous structure of bird's feather barbules internodes (30-150 um length, 2-6 um width). They are chemically composed of 91% keratin, 1% lipids, and 8% water.

Their small size means a lot of surface area. The keratin fibers also have a hollow-cylindric structure (meaning low density and good insulation properties) with high

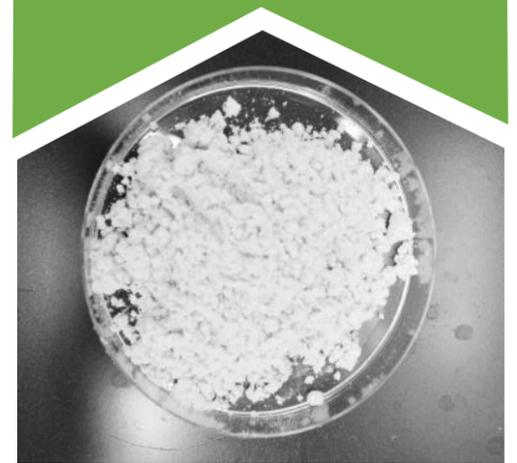
thermostability.

Materials and composites produced from keratin fibers will have low density, low dielectric constant, excellent compressibility and resiliency, heat retention and ability to dampen sound. All are unique properties making them highly interesting for applications such as textiles, composites, insulations, packaging, plastic filler, membranes, or even biodegradable electric circuit boards.

The biologically produced keratin fibers are first-of-its-kind and can only be produced with the Bioextrax's patented method.

Key Benefits

- large surface area
- low density
- hollow-cylindric structure
- high thermo stability
- 100% bio-based
- bio-degradable



MANAGEMENT TEAM



CTO

Mohammad H.A. Ibrahim, PhD in Biotechnology



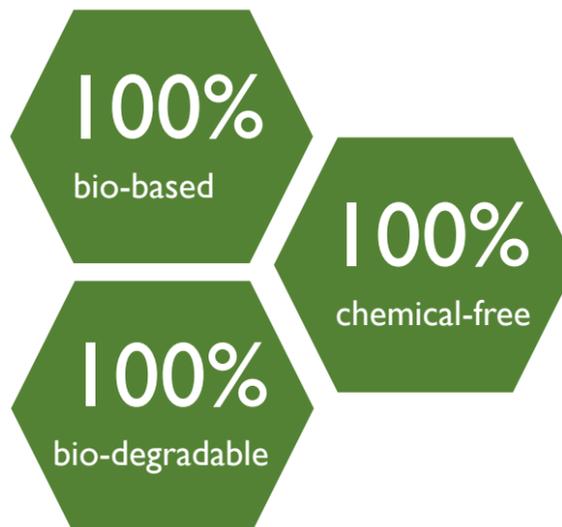
CEO

Edvard Hall, lawyer, entrepreneur

Board members

- Leif Nilsson (Swedish Plastic Association)
- Håkan Björnberg (Perstorp)
- Per Hökfelt (Diab)
- Rajni Hatti-Kaul (Lund University)

FERMENTATIVE HYDROLYSIS OF FEATHERS



Any inquiries regarding our keratin fibers should be addressed to :

edh@bioextrax.com (Edvard Hall, CEO)

CONTACT US

- 📍 Ideongatan 3A, Lund
- 🌐 www.bioextrax.com
- ✉ edh@bioextrax.com
- ☎ [+46 736 267 643](tel:+46736267643)