

malai

www.made-from-malai.com

ABOUT

what is Malai ?

- Malai Biomaterials Design Pvt Ltd registered as per Indian companies act is a material research & design studio based in Kerala.
- We do research, design & development of materials that can replace unsustainable materials like PU and PVC plastics with the advantage of having outstanding ecological credentials
- Our pilot material - Malai is made from bio-based material fermented on coconut water & natural fibres coming from agricultural waste stream

VISION

what is our aim ?

To provide environmentally friendly materials created using innovative technology, keeping in the blessings of nature to mankind and also ensuring best of aesthetics appeal for fashion industry & furnishings, high functionality & quality



TEAM

who is with Malai ?



SUSMITH C SUSEELAN

Susmith is a product designer with background in Mechanical engineering. he is a graduate from IISc Bangalore. He gained work experience in paper making industry where he worked in the maintenance department for 2 years. After graduation he started working at Godrej Innovation and design center where he actively contributed to development of several patents related to water filtration device. He comes from Kerala.

Designer and Material Researcher from Slovakia. Zuzana is a graduate from MA Material Futures at Central Saint martin's College of arts and design in London where she graduated with a final project exploring potential of Bacterial Cellulose as a future material for fashion. Her background is in Fashion and Textile design that she studied in Czech republic and Istanbul. She worked for renown fashion houses and brands in Istanbul and London. In 2015 she presented her work as a speaker at TEDx Bratislava.

ZUZANA GOMBOSOVA



MATERIALS

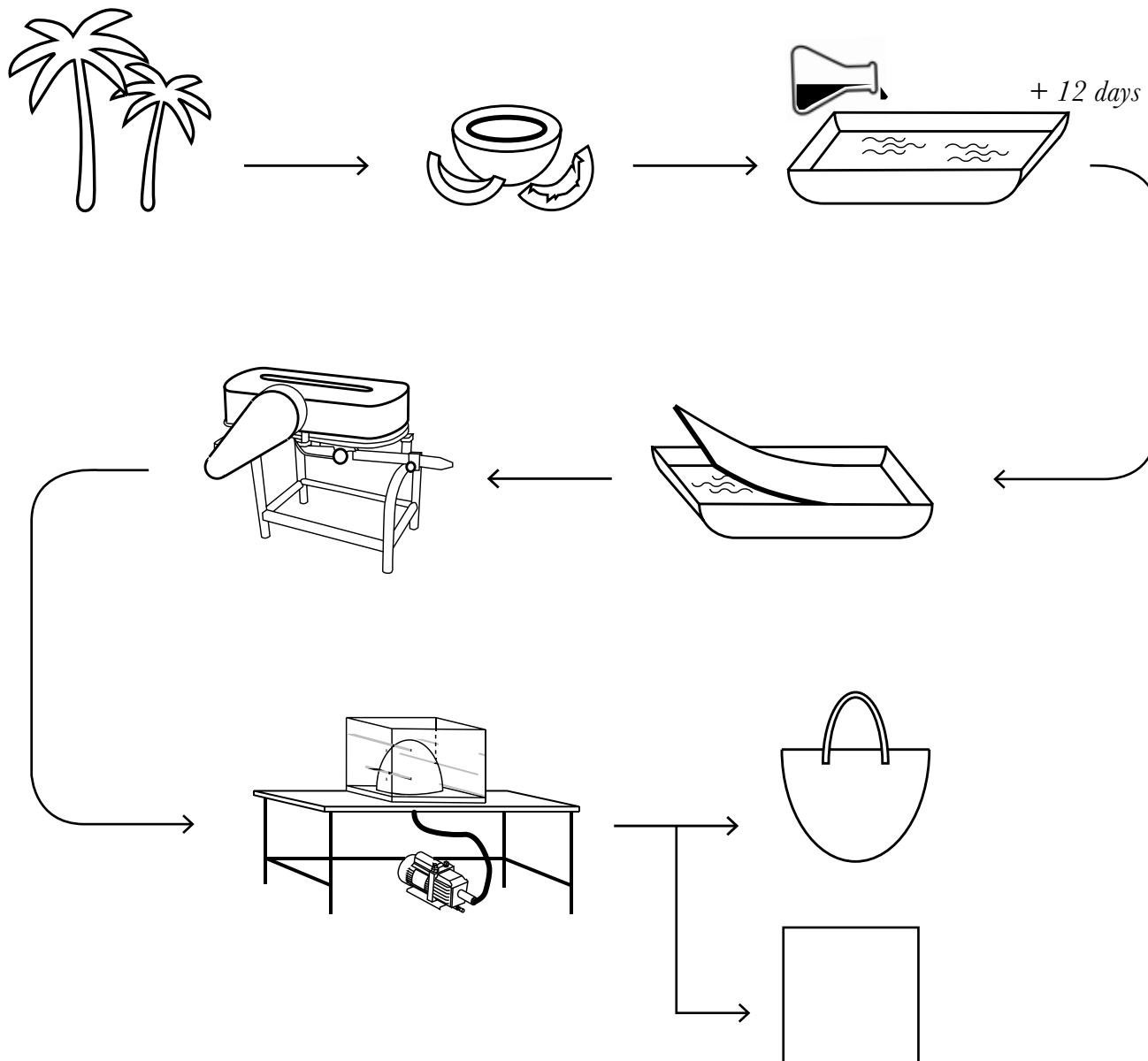
what do we make?



Malai – (noun) a newly developed biocomposite material made from entirely organic and sustainable bacterial cellulose, grown on agricultural waste sourced from the coconut industry in Southern India. Malai is a flexible, durable biocomposite material with a feel comparable to leather or paper. It is water resistant and because it contains absolutely no artificial 'nasties' it will not cause any allergies or intolerances.

PROCESS

How is Malai made ?



PROCESS

How is Malai made ?

- We work alongside Southern India's coconut farmers and processing units who find themselves with much 'waste' coconut water after they've removed the harvest of white flesh from inside the mature coconuts. Normally this waste water would be released into the drainage system, but this in itself causes pollution of water and the soil to become acidified.
- We rescue this coconut water, place it into vats and sterilise it, resulting in an energy-rich, entirely natural nutrient upon which our bacterial culture can feed. We combine the nutrient and the culture and then just let the bacteria do its thing. The fermentation period takes between twelve to fourteen days, at the end of which time: hey presto! A sheet of cellulose 'jelly' has been produce.
- We harvest the jelly which then undergoes a process of refinement. It is enriched with natural fibres, gums and resins to create a more durable and flexible material which may then be formed into flat sheets in a range of thicknesses and textures, or moulded seamlessly into 3D structures. A range colours can be achieved through the addition of natural dyes, if so desired.
- The final stages for creating Malai include leaving it to air-dry, and then softening it whilst applying gentle water-resistant treatment (without adding any plastic coatings or synthetic ingredients).

malai

IS

- biodegradable
- bio based
- biocomposite of Bacterial Cellulose and natural fibres
- water resistant
- sustainable
- vegan
- natural
- recyclable
- biodegradable and compostable

IS NOT

- leather
- untearable
- suitable for washing machine cleaning
- petroleum based
- faux leather
- industrially made
- made from tender coconut water

malai

Keywords



- Ethical
- Innovative
- Can be a leather alternative in non load bearing applications
- Vegan
- Natural fibre
- bacterial Cellulose / Nata de Coco
- water from mature (brown) coconuts
- agricultural waste (banana stems, coconut water)
- Made in Kerala, India
- biocomposite
- Biodegradable
- Compostable
- Sustainable

Contact



- This document offers some guidelines concerning the description of Malai materials.
- As a new material on the market it is important that Malai is described with the appropriate terminology to avoid any misunderstanding, and we appreciate your cooperation.
- We hope this information will be useful and clear but in case of any doubts please don't hesitate to contact us and use our help in proofreading any documentation or publication on Malai.
- Please feel free to send your email to info@made-from-malai.com for review.
@about.malai