

CONTEMPORARY SEMINAR

One Man's Trash Is another Man's Treasure

Vegea Textile

Introduction:

Vegea is a vegetable leather which is appropriate above all for the manufacture of shoes, bags and fashion accessories, but it is also used to for the production of clothing in leatherette and outside the textile sector like leather items. Vegea converts waste products into reliable materials that can be used for furniture, fashion, packaging, transportation and automotive, delivering a substitute to plastics and protecting the natural resources. The production procedures are based on the usage of biomass and vegetable raw substances by increasing the use of recyclable resources as a substitute to non-renewable fossil resources. The startup was backed by the European Union Horizon in 2020 research and creativity program, and it also got the first award of the Global Change Awards for reliable and animal-friendly style.

Manufacture:

Vegea's "wine leather" doesn't only just give an impact of conventional leather and have the same characters, it has a whole load of other benefits as well. At the first, it doesn't need any water in order to manufacture it - unlike common leather which has a great water footprint. And wine leather doesn't need a complicated and toxic tanning procedure. The treatment and other tanning procedures linked with animal leather include using huge amounts of heavy metals and toxic chemicals. While vegetable tanning alternatives are far better and harmless to the environment, they are much more costly, meaning the majority of conventional leather is still tanned with the help of chromium. And because leather is

mostly ordered from low-resource countries with not so safe working environments, many leather workers are continuously exposed to harmful chemicals, seriously harming their health.

The fact this "wine leather" is completely vegetable is another optimistic aspect. While leather is mostly a by-product of the meat industry, the argument still remains that the existence of the leather industry in actual backs factory farming. However, not every animal that is turned into a hand bag gets eaten of course. Exotic animals like crocodiles and snakes are often bred and killed mostly for their skin. Vegea's wine leather isn't just appropriate for the fashion industry - for making shoes, clothing, accessories and bags. It could also be used for car seat wraps and upholstery. They're already working with various textile firms to develop different kinds of materials of different strengths, weights, elasticity levels, final touches and textures. The company showed its first fashion collection last autumn, with handbags, shoes and cloths developed under the creative guidance of eco-stylist Tiziano Guardini. And Vegea is already looking beyond its wine leather discovery as well: powered by sponsorship from the EU, the firm has returned to the lab and is making attempts to come up with other methods of sustainably converting agricultural biomass waste into various useful goods and bringing them again into the value system. The firm has established a procedure for the valorisation of wine waste by forming an alliance with Italian wineries. The grape marc, which comprises of stalks, grapes skins and seeds discarded during the processing of wine, is turned into a substance that resembles leather.

The grape marc is renewed from the residues of the Italian wine industry and desiccated, then bio-oil is achieved from the seeds, which is polymerised through patented techniques. It is then combined with the fibers through a creative manufacturing procedure, and chemical procedures are added to make the Vegan Leather. 2.5 kg of grape marc is attained from the manufacture of 10

liters of wine; it can be turned into 1 square meter of the vegan wine leather. The leather can then be recycled. No heavy metals, toxic chemicals and harmful substances for humans and the environment are included in the manufacture process. The other products include: V-Polymer, V-textile and V-Yarn.

Commercial importance:

Vegea is a latest start-up with an intense chemical background with a lot of experience in industrial processes and natural polymers, composed by researchers coming from the academy with an intense entrepreneurial trend. It has already achieved many awards recognizing the value of its disruptive creativity, like Start&Cup Award-2015, H&M Global Change Award-2016 and Start&Re-Start-2016 which was backed by a total funding of above than €300.000. The major scope of VegeaTextile project is the utilization of a complete absolute breakthrough creativity which is able to demonstrate a novel, cost-efficient and eco-friendly procedure for the manufacturing of organic textile and appearance in the European leather goods market a latest type of bio-textile using a non-animal and renewable raw substances, considered up till now an agricultural waste: the grape marc. As a matter of fact, the manufacture process can be defined “low impact” for the environment since it makes less use of additional water and chemical reagents, and at the contrary, it makes reusable water out of the grape marc exsiccation (60% w/w). Their creativity will permit the leather goods producers to answer to the increasing consumers’ awareness about regarding ecological and animalist concerns, to propose a new item with same quality of normal leather and, at the same time, to find a substitute and renewable raw substance, assisting them to overcome stringent rules and regulations regarding animal treats and tanning procedures. Upon project length vagea textile targets at industrialising the procedure of production by 2022, approaching an estimated manufacture capacity of 4.5 million m²/yr, the devoted business goals of € 8,64 million overall profits over 4 yrs of industrialisation

2022), and resultantly an above-than-market ROI (26%) and benefit (22%).

Inspiration:

Vegea makes alliance with the private and public sector that permits it to form synergies and links with local industry and researchers . Vegea has also an experience of working with popular brands like Bentley Motors, H & M and a few other brands which belong to the fashion industry. Constant investments are devoted to research activities for the constant manufacture of modern technologies and procedures which have environment friendly impacts. The solution can give advantage to a broad range of fashion, textile, apparel design industries, and is also able to help the wine industry to manage and check their leftovers.

References:

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