BioBoost
Accelerating biobased horticulture

Skin friendly biopolymers from corn and potato

Crop	Potato *Solanum tuberosum* Corn *Zea mays L.*
Croppart	Seed Roots / Tubers
Application area	Fine chemicals Materials
Status	Start-up stage
Relevant plant compounds	Starch Cellulose

Description

Harnessing the extraordinary antimicrobial, antioxidant, absorbency, and skin compatibility features of biopolymers and decoupling the production of exemplary high-volume products from the depletion of fossil resources by utilising primary as well as food waste biomass, the project aims to provide functionally improved, significantly more sustainable, and price-competitive everyday products, namely baby diapers, facial beauty masks, and non-woven tissue to be used in wound dressings.

Examples of end products

Sustainable diapers

A new biodegradable diaper consisting of a bio-based topsheet with antimicrobial and skin beneficial functionalities and a bio-based superabsorbent layer;

Cosmetic masks

Novel cosmetic masks based on textiles or films made from biopolymers and impregnated with molecules beneficial for the skin

Wound dressing textiles

Nano-structured highly skin-compatible textiles for wound dressing

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Pros and cons

- Creating sustainable polymers
- create awareness about the opportunities of bio-based materials

- New product on a very competing market
- Challenges in upscaling the product

Resources

http://polybioskin.eu/#overview Initiative website