

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

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