

## Skin friendly biopolymers from corn and potato

### 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.



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

## 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