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Development of new cellulose high-performance rigid packaging prototypes

Développement de nouveaux prototypes d'emballages rigides et performants à base de cellulose

MatBio

Confidentiel

Context / Objectives

Laws banning petroleum based plastics:

-  (Single Use Plastic) legislation [2018, EU]
-  (Anti-Gaspillage pour une Economie Circulaire) law [2019, France]
-  (Packaging and Packaging Waste Regulation) [2022, EU]

Alternative material: Cellulose

- Bio-based and biodegradable
- First in the ranking of polymers produced by nature
- Well established production and recycling



Chaire Cellulose Valley

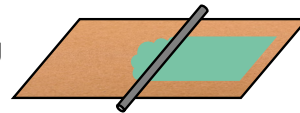
- Dedicated to the development of environmentally friendly packaging
- Connecting research, education and industry across the cellulose packaging value chain



Methods

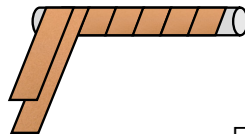
Functionalization

Bar coating

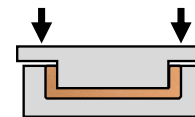


Processing / Shaping

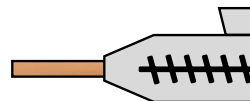
Tube making



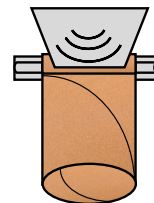
Hot pressing



Extrusion



Sealing and converting



Results

These prototypes replace:

XPS trays



PE / PET / aluminium tennis can



PE/PET tubes

