Formulation and functionality testing of novel bio-based materials and products

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The mobility Research project

Petroleum based polymers (Thermoplastics)

Uncertainty in terms of price and availability of petroleum + Sustainability issue

Alternatives

Bio-based Polymers

Polymers extracted from biomass
Starch, Proteins...

Bio-based monomers (building blocks)
Lactic acid, Isosorbide, phenols...
Produced from biomass degradation

Polymers produced by bacteria
PHAs...

Polymerization

Polycarbonates, Polyesters, PET

Standardisation of characterization Methods

Mechanical, thermal and chemical testing

Reaching the properties (thermal and mechanical) of petroleum based polymers
Reach the European and global markets

+ Uncertainty in terms of price and availability of petroleum