

Compounding a biobased and biodegradable PLA with improved mechanical properties

Description

INRA and AGROPARISTECH in their Joint Research Unit «Ingénierie Procédés Aliments» (GENIAL) and in collaboration with Cnam, ITERG and Brodart company, have developed a formulation and a process to produce PLA packaging with improved mechanical properties. The employed additives come from the vegetable oil refinery and their uses allow to maintain the biobased and biodegradable part in PLA. These additives enable the significantly increase of the PLA ductility while maintaining the transition temperature well beyond room temperature.



Type of expected transfer

License or option license under R&D program.

Advantages

The formulation is 100 % biobased and biodegradable (EN13432) and maintain et the good stiffness of PLA. This process can be implemented on a large scale.

Possible applications

These additives have also an interest in the blown film extrusion of PLA.

Key words

PLA, compound, film, oil, biodegradable, biobased, polymer, ductility

TRL Scale

1 2 3 4 5 6 7 8 9

Development level

The patent n°PCT/FR2015/050533 protects the compounding and production of a biobased and biodegradable PLA with improved ductility.

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