Isolago

Our projects

PotatoPlastic

Beneficiary Entities

ISOLAGO

U.PORTO

Instituto Superior Politécnico de Viseu

Cofinanced by

COMPETE 2020

PORTUGAL 2020

UNIÃO EUROPEIA
Fundo Europeu de Desenvolvimento Regional

Isolago - Indústria de Plásticos S.A., together with the University of Aveiro, intends to develop a biodegradable bioplastic compound using as raw material by-products not reused from the potato processing industries, such as washing waters, small potato fragments removed from cutting machines, peels, etc. The consortium chose as its main objective the improvement of bioplastic's mechanical and physical and chemical properties. The incorporation of inorganic materials in the formulation, as well as the esterification of starch will also be studied.

The project is based on three fundamental steps:
1. Extraction, identification and quantification of by-products;
2. Production, characterization and operation of bioplastic compounds;
3. Bioplastic compounds production scale-up.

Objectives

1. Production of a biodegradable bioplastic based on potato by-products
2. Ensure bioplastics hydrophobicity
3. Incorporation of inorganic materials in bioplastic

Activities

1. Extraction and identification of constituents of potato by-products on a laboratory scale
2. Production and characterization of bioplastics based on potato by-products
3. Development of bioplastic compound formulations
4. Construction of prototypes
5. Promotion and dissemination of results

Technical data sheet

Project name

PotatoPlastic - Production of a biodegradable bioplastic compound based on potato by-products

Project code

17938

Main Purpose

Reinforce research, technological development and innovation

Beneficiary Entities

Isolago - Indústria de Plásticos, S.A., University of Aveiro

Approval date

8/24/2016

Start date

11/01/2016

End date

10/31/2019

Total eligible cost

EUR 1 690 739.84

European Union financial support | FEDER

EUR 1 010 726.30



Results achieved

Through the PotatoPlastic project it was possible to develop a biodegradable bioplastic compound based on potato by-products. The project results were very satisfactory because it was possible to produce bioplastics, thus providing a solution to the by-products of this industry, allowing its reuse. The consortium considers that some characteristics of this compound should still be improved, in order to make it more competitive in relation to existing alternatives on the market. The realization of this innovative project allowed Isolago to take its first steps in the world of bioplastic compounds, a very promising and constantly growing market.



