



New customized compostable materials for the manufacture of tableware, packages and single-use bags

The project Bio+, in which companies manufacturing single-use products, led by the bag manufacturing PICDA and coordinated by AIMPLAS, in collaboration with other centres and universities, will allow to develop customized compostable materials for plastic packages, bags and tableware.

The main challenge of the project is that new materials comply with the current legislation with the same functional requirements than products obtained with traditional plastic materials, with a competitive cost.

Valencia (16-03-2018).- In recent years, the legislation regulating waste management has focused on reducing the environmental impact in packages and their wastes with specific provisions that foster the use of compostable bags, such as the French directive that, since the beginning of 2020, will ban the use of disposable tableware if the 50 % of the material used for its manufacture does not come from renewable sources and the materials are not compostable in home composting. In Spain, a Royal Decree project will force to spread the concept of biodegradable to compostable.

In this legislative context and in the absence of a range of materials covering the needs required by the market and being an adequate alternative to conventional plastic materials, the project BIO+ will develop customized materials responding to these needs.

The main objective of the project is to develop customized compostable materials for mass-market single-use products complying with the current legislation and with the same functional requirements than the products obtained with traditional plastic materials and with a competitive cost. For that purpose, tasks are being carried out to obtain the biodegradation of different products keeping in mind their end of life. Thus, for single-use packages and disposable tableware, which are normally contaminated with food scraps, a compostability in 'home compost' conditions is to be achieved. For single-use bags that wrongly managed may end in seas, a biodegradability in marine environment is to be sought.

The consortium of the project is led by **PICDA**, a company from Valencia (Spain) specialized in extrusion of plastic bags of different formats, and **Granzplast**, engaged in the manufacture of customized plastic compounds for injection and extrusion technologies. In order to tackle the developments in disposable household items developed, the companies **NUPIK**, leader in the manufacture of disposable household items and **Perez Cerdá Plastics**, specialized in tasks of plastics injection applied their knowledges in single-use injected household items (cutlery and glasses). The consortium



is completed with companies addressing the developments in single-use packaging, such as **Indesla**, manufacturer of packages for the fruit and vegetable and food sectors and **Thermolympic**, a company dedicated to the injection of thermoplastics that, in this project, will tackle the development of packages for catering. Moreover, the consortium has the support of three technology centres such as AIMPLAS, AITIIP and CETIM and the University of Santiago de Compostela (USC), which will provide scientific and technical support to the companies taking part in R&D tasks.

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