

AIMPLAS Develops Biodegradable Packages for Dairy Sector

Industry News

AIMPLAS Develops Biopolymers to Make Biodegradable Bottles for Dairy Products

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VALENCIA -- AIMPLAS has completed the research that have made possible to develop new [biopolymers](#) from which it will be able to manufacture new **biodegradable bottles, bags and caps** resistant to sterilization and pasteurization, therefore, they can contain dairy products, such as fresh milk, shakes and yoghurts with probiotics.



BIOBOTTLE Project Coordinated by AIMPLAS has Made Possible the Development of Biodegradable Packages

Biodegradable Packages for Dairy Sector

The project **BIOBOTTLE**, developed within the European Union's Seventh Framework Program has been coordinated by **AIMPLAS** and has a budget of one million euros. Seven companies and technology centers from five different countries have taken part: VLB (Germany), OWS (Belgium), CNR (Italy), VIZELPAS and ESPAÇOPLAS (Portugal) and finally ALMUPLAS and ALJUAN (Spain).

The packages for this kind of products are currently manufactured from polyethylene, which, although it is

easy recyclable, it still ends its shelf life mostly in landfills, due to the odor problems that this product's wastes cause. For that reason, and given the huge amount of milk products consumed in the European Union, it is so interesting developing biodegradable and compostable packages.

The aim of the project was achieving that the new biodegradable packages manufactured with the biopolymers developed within the project complied with the mechanical and thermal aspects required for these applications, as well as they passed the microbiological tests without affecting the product's organoleptic properties. The results are monolayer bottles and caps and multilayer bags able to resist temperatures up to 95°C.



Bio Bottle

By means of a reactive extrusion process, it has been achieved to modify the existing commercial material, so they fulfil the expectations and are processable by conventional methods to obtain the different packaging formats.

Economically Compostable and Viable

From the new biopolymers developed, which have also passed the composting tests carried out, the packages for milk products already described will be obtained. These packages, although with the current costs of biodegradable materials, increase in less than 10 % the final cost of the packages product.

About AIMPLAS

AIMPLAS, the Plastics Technology Centre is located in Valencia, Spain and is recorded at the Register of Technological Centers of the Spanish Ministry of Economy and Competitiveness. The institute is member of FEDIT (Spanish Federation of Innovation and Technology Entities) and REDIT (Network of Technological

Institutes of the Valencia Region).

AIMPLAS is a non-profit research association with the object to operate as a technological partner for enterprises from the plastics industry and thus offering them integral and customized solutions by coordinating research, development and innovation projects as well as technology services (analysis and testing, technical assistance, training as well as competitive and strategic intelligence).

Source: *AIMPLAS*

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