

**AIMPLAS**PLASTICS TECHNOLOGY
CENTRE**Foundation**

1990

Turnover

13,3 M€

Employees

170

BranchesR&D Projects,
Technological Services,
Training**Key materials**PHB, PLA, PVOH, natural
fibres, flame retardant
bioplastics, biocomposites**Key products**Packaging, Agricultural,
Automotive and transport,
Health**Contact**AIMPLAS. Plastics Technology
Centre 4 Gustave Eiffel St.
46980

Paterna (Valencia) SPAIN

www.aimplas.net**Contact person**María Llorens
Head of Marketing Department
+34 96 136 60 40
mllorens@aimplas.es

We have 30 years of experience helping companies in the sector, including manufacturers of raw material, processors and the end users. AIMPLAS has the most comprehensive resources, with over 10.500 m², to address technical analysis and testing as well as R&D projects related plastics. We also have more than 30 pilot plants with different processes for plastic processing and our laboratories are internationally accredited according to ISO/IEC 17025.

**R&D&I Projects**

Environmental sustainability: a challenge for companies

Every year more than 250 enterprises trust in us to manage their R&D projects. These companies find in AIMPLAS a partner for the necessary technological support in the development of the new products, the improvement of the properties of a new material, the optimization of their transformation processes or the assessment of waste materials.

AIMPLAS has over 20 years of experience in bioplastics. This research line has two main areas:

1. Plastics are reinforcements from natural renewable sources, such as flax, jute, hemp, agricultural waste, and cellulose, as well as bioplastics synthesized by biotechnology from biomonomers.
2. Biodegradable plastics from fossil or non-renewable sources.

AIMPLAS has completed over 150 R&D&I biopolymer and biocomposite projects since 1997. This track record as experts in the field places us at the forefront of development of new, more eco-friendly materials and products. Some of our most important research lines are:

- Developments in PHB.
- Projects related to obtaining PLA packages.
- Developments using natural fibres.
- Development of biodegradable and compostable materials for agriculture.
- Flame-retardant bioplastics.
- High added-value products from vegetable, industrial and municipal solid waste.
- Biocomposites that can be recycled.
- Biofabrics for clothes.
- Biocomposites with advanced properties for construction and transport.
- Development of PVOH grades that are more cost-efficient than EVOH.
- Biocomposites from resins obtained from renewable sources.

**Business opportunities**

- Increased thermal resistance of plastic materials through reactive extrusion
- Developing PVOH grades suitable for extrusion and injection to develop barrier packaging
- Eliminating volatile compounds and contaminants using SC-CO₂ and an extraction system
- Starch film with a higher amount of native starch than commercial grades
- Compostable nets and twines
- Cellulose-fibre composites with advanced properties (foaming, flame-retardant, biodegradable, antimicrobial, etc.)
- Natural fibre-reinforced Polypropylene (PP)
- Compounding technologies to obtain customised biodegradable materials)
- Biocomposites from glass fibres and resins from renewable sources



Projects undertaken

PLA packaging projects



PLA4FOOD



BIOBOTTLE



BIO4MAP



BIOTUBO



BIOPFARM



PLAPACK

Agricultural projects



PICUS



ECOBIONET



HYDRUS



DRIUS

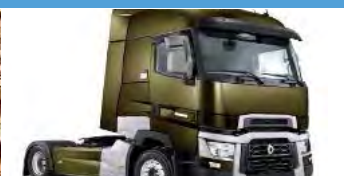
Developments with natural fibres



ECOPLAST



NATURTRUCK



BIOSTRUCT



NATEX

Fire-retardant bioplastics



BIOFOC

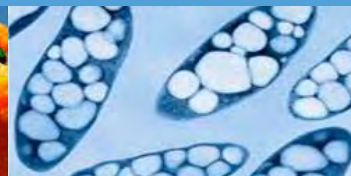


CAYLEY

PHB developments



PHBOTTLE



BUGWORKERS

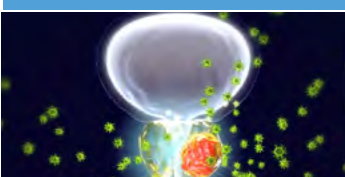


BRIGIT



WHEYPACK

Biomaterials in medicine



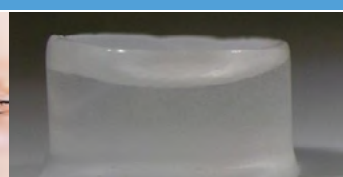
MRFID



AEROINJECT GRO



POLIMAB-RP



OXÍMETRO



Analyses and Tests

Bioplastic and/or compostable materials and products manufactured with bioplastics must be tested to determine and ensure their biodegradability in certain test media, such as compost, soil, aqueous media and marine environments, and to meet the specifications that will help position the products on the market. The biodegradation tests in compost and soil, and plastic disintegration tests carried out in our laboratories are accredited by ENAC (Spanish National Accreditation Body).



Aerobic biodegradability

In AIMPLAS, we can determine aerobic biodegradability under different conditions and test media according to the following test standards:

Controlled composting conditions: UNE- EN ISO 14855 (part 1 and 2). Part 1 of the standard is a test accredited by ENAC (Spanish national accreditation body).

Soil: UNE-EN ISO 17556. This test is accredited by ENAC.

Aqueous medium: UNE-EN ISO 14852.

Anaerobic biodegradability

We can also determine anaerobic biodegradability under different conditions and test systems according to the following test standards:

- Liquid: UNE-EN ISO 14853.
- High solid content: UNE-EN ISO 15985.



Degree of disintegration

In AIMPLAS, we can also establish the degree of disintegration of plastic materials under composting conditions simulated in a laboratory test. The test standard is UNE- EN ISO 20200.

Should you require tailor-made tests, please do not hesitate to contact us.



Training and Events

We organise key conferences and seminars for the plastic industry



10th INTERNATIONAL SEMINAR
BIOPOLYMERS
AND SUSTAINABLE
COMPOSITES



CONFERENCE -
DEBATE
Plastics and
Circular Economy



PLASTICS ARE
THE FUTURE



Awards and Recognition



BIOVEGE

Bio-based Material 2018



BREAD4PLA

go!ODS 2018



BREAD4PLA

Green Awards 2017



POLYMIX

LIFE Citizens' Award 2015