



**AIMPLAS**

PLASTICS TECHNOLOGY  
CENTRE

# ANALYSIS & TESTING

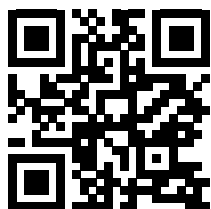
**EXCELLENCE**  
in PLASTICS



## About AIMPLAS

Established in 1990, AIMPLAS is a technology centre that provides value added to companies in the plastics sector. Our main activity is based on R&D, technological services, training and organizing workshops and events.

AIMPLAS has a certified management system that addresses quality (ISO 9001), the environment (ISO 14001), human safety (ISO 45001) and R&D management (UNE 166002).



Contact us for  
more information.

## Our laboratories

AIMPLAS laboratories were set up in 1990. In 1993, they obtained their first accreditation in accordance with the UNE-EN ISO/IEC 17025 standard granted by ENAC in recognition of their technical capacity.

Our main purpose is to offer valuable assistance to companies in a friendly, reliable and timely way.

We characterize materials and plastic products for all sectors of application, with a focus on the safety of materials in contact with food, validation of automotive plastic parts, analysis of waste and recycled materials, and assessment of the biodegradability and compostability of materials and final products.



We perform  
**analyses  
and tests**  
on raw  
materials,  
intermediate  
and final  
products,  
and plastic  
waste



## What makes us **different**

- We're experts in characterizing waste and recycled materials
- We develop our own analytical methods and customized tests
- We offer customized training on plastic materials and products
- We provide technical audits, expert reports and arbitration
- Our services include failure and breakage diagnosis
- We're experts in plastics legislation
- We draw up product data sheets
- We carry out studies on degradation and the incidence of defects
- We verify compliance with tender documents
- We prepare standardized test tubes
- We provide personalized advice on interpreting results





## OUR FIGURES

**Laboratories accredited by ENAC** in accordance with the UNE-EN ISO/IEC 17025 standard since 1993

More than **250 highly qualified professionals**

**12,000 m<sup>2</sup>** of facilities

More than **+840** member companies

More than **3,300 clients** in 66 countries

**Specific  
solutions  
for a wide  
range of  
sectors,  
products and  
applications**



## **Characterization of plastics and composites**

Mechanical properties  
Physical and thermal properties  
Optical properties  
Rheological properties  
Electrical and conductive properties  
Barrier properties (OTR and WVTR)  
Coatings: surface properties  
Identification of polymers, additives and fillers  
Quantification of additives, fillers and waste substances

## **Analysis and quantification of microplastics**

### **Determination of compostability and biodegradability of materials and products**

Industrial and home compostability (EN, ISO and ASTM standards)  
Biodegradability under conditions of composting, soil and aqueous environments  
Pilot-scale disintegration  
Laboratory-scale disintegration  
Ecotoxicity in higher plants

### **Characterization of waste and recycled materials**

### **Durability and external agent resistance**

Thermal, climatic and xenon, UV and IR ageing  
Fire behaviour  
Chemical resistance  
Vibrations and fatigue

### **Emission of volatile organic compounds (VOCs) inside vehicles**

### **Safety evaluation of food, pharmaceutical and cosmetic packaging**

Overall and specific migration tests in accordance with Regulation 10/2011 and Regulation 2022/1616  
Sensory analysis  
Evaluation of non-intentionally added substances (NIAS)  
FDA: Title-21/ Food for Human Consumption/parts 174-186  
Drinking water: Directive (EU) 2020/2184 – Spanish Royal Decree 3/2023  
European (EP) and US (USP) pharmacopoeias

### **Functionality of packaging**

Dishwasher resistance  
Chemical compatibility  
Tightness  
Child-resistant closure testing

# ACCREDITATIONS, CERTIFICATIONS, HOMOLOGATIONS & RECOGNITIONS



## ENAC accreditation

ENAC accreditation in accordance with the UNE-EN ISO/IEC 17025 standard, which validates test results in any of the more than 100 countries that signed the ILAC-MRA mutual recognition agreement.

AIMPLAS is the top Spanish centre in the offer of accredited tests in the plastics industry.



## Automotive and transport

Tests complying with product standards for validation of materials and parts Auto manufacturer homologations: Volkswagen, Renault and Daimler.



Laboratory recognized by the European Commission to certify tachograph seals.

## Food packaging reuse

European certification mark "Designed to be Reusable"



## Recycling

Laboratory recognized for certification testing  
Recyclability protocols (RecyClass)  
End-of-Waste Status Directive (FER) (Portugal)  
Basel Convention



## Biodegradability and compostability

Laboratory recognized by TÜV Austria for:

OK Compost INDUSTRIAL  
OK Compost HOME  
OK Biodegradable SOIL  
Seedling



Laboratory recognized by DIN CERTCO and BPI:



## Product and material certification

Laboratories recognized to perform certification tests on a wide range of plastic products (waterproofing sheets, PVC profiles, bags with high recycled content and recycled materials).

## Paint and varnish Ecolabel certification testing





# CUTTING-EDGE EQUIPMENT

## Mechanical properties

Universal testing machine (traction, compression and bending up to 250 kN), fatigue, impacts (Charpy, Izod, ball and dart) and hardness (Shore, Barcol and ball).

## Performance with external agents

Xenon, UV, solar simulation, ageing due to the effects of temperature and moisture, thermal shock, fire (resistance, cone calorimeter, glow wire), comparative tracking index (CTI), limiting oxygen index (LOI), thermal conductivity, resistivity, Vicat-HDT (heat deflection temperature) up to 500°C and vibration equipment (6.5 kN, sine, random and shock).

## Material rheology

Dynamic mechanical analysis (DMA); flow rate; rotational, oscillatory, capillary, on torque and extensional rheometry; and Brookfield and in-solution viscosity.

## Characterization

Fourier transform infrared (FTIR), differential scanning calorimetry (DSC), Raman, thermogravimetric analysis (TGA), liquid chromatography (LC-PDA/MS/HRMS/IR/ELSD and UPLC-QTOF) and gas chromatography (Py-GC-MS, GC-MS/FID).

## Automotive

Stone chip, steam jet, car wash, fogging, one cubic-meter chamber and pure sniff

## Barrier properties

OXTRAN® and PERMATRAN®





Packaging



Construction



Printing Industry



Aeronautics



Energy



Health



Automotive and Transport



Recycling



Agriculture



Electrical-Electronics



Furniture



Boating Industry



**AIMPLAS**

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GENERALITAT  
VALENCIANA

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INSTITUT VALENCIÀ  
DE COMPETITIVITAT  
I INNOVACIÓ



UNIÓ EUROPEA  
Fons Europeu de  
Desenvolupament Regional  
*Una manera de fer Europa*

**REDIT**

INNOVATION NETWORK

