Training

AIMPLAS covers the needs of retraining the technicians of companies in order to ensure compliance with the technological demands of the plastics sector and also prepares newly-qualified people for their specialization in the plastics sector.

Specialized technical training in:

- Customized courses of traditional plastic materials. Fundamentals, types, properties, applications, characterization and trends.
- Customized courses of advanced plastic materials. Innovations in polymeric and plastic materials for innovative constructions. Intelligent solutions.
- Design and optimization of plastic pieces.
- Thermoplastic transformation processes (compounding, extrusion and injection).
- Thermosetting transformation processes (RTM, pultrusion, infusion, Solid Surface, etc.).
- Recycling.
- Bioplastics.
- Specialist card in plastic pipes installation for water networks (ASETUB).

Our offer also includes technical workshops and seminars.

www.formacion.aimplas.es

CONSTRUCTION

AIMPLAS
PLASTICS TECHNOLOGY CENTRE

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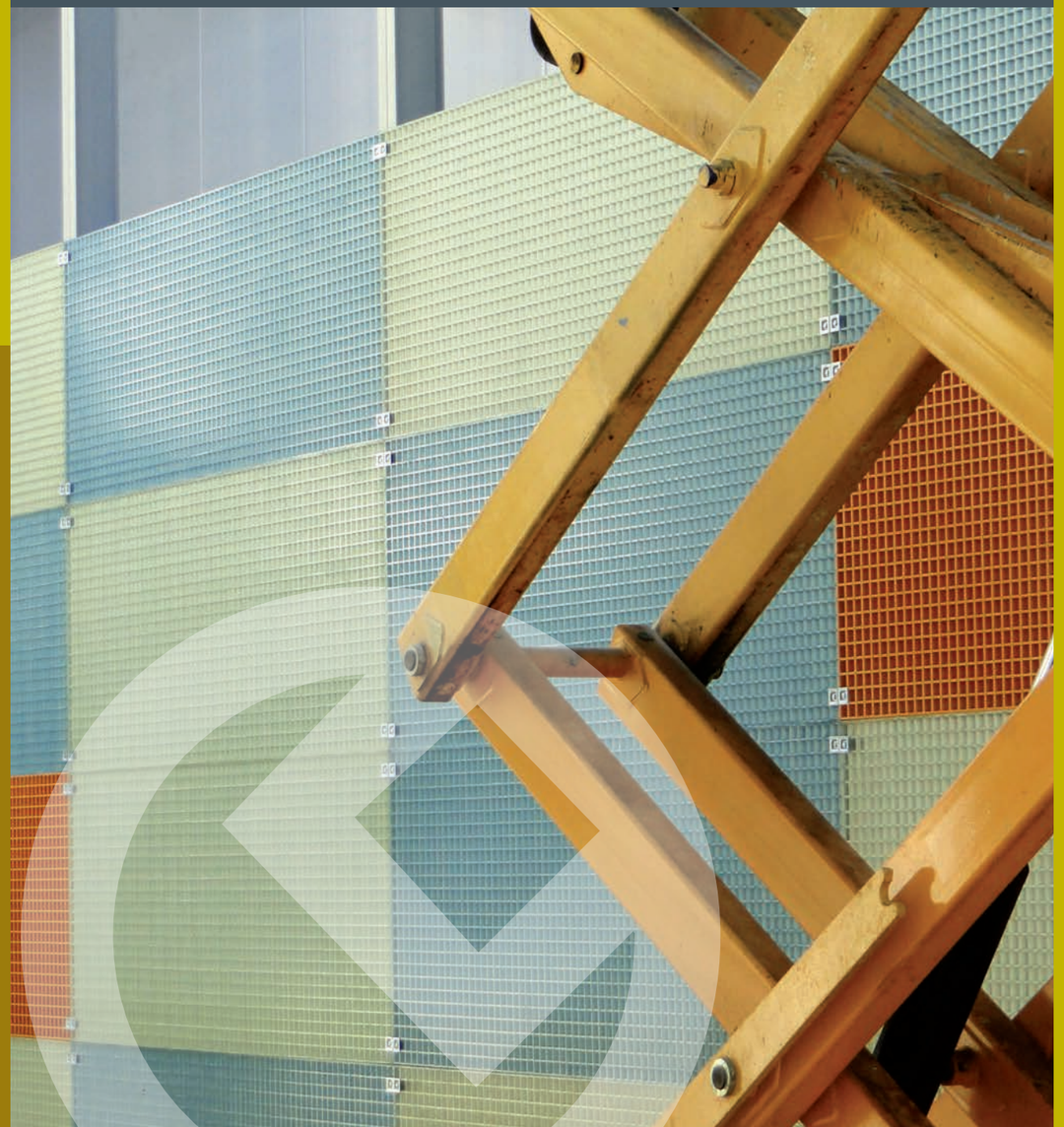
Innovation IN PLASTIC

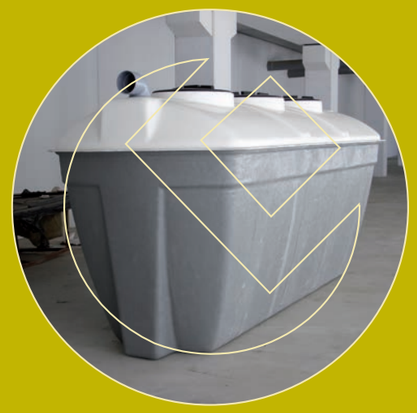


CONSTRUCTION

CONSTRUCTION

Plastic materials have a lot of properties that make them suitable for construction, being versatility their main characteristic. Among their advantages we can find resistance to environmental factors; processing ease in complex forms; transparency and pigmentation ease; thermal, acoustic and electric insulation capacity; low density; and finally structural resistance.

From our company we promote the technological development and the innovation in plastic materials in order to help companies to be more competitive and offer more-quality, safer and sustainable innovative products.



R&D Lines

Development of materials with high thermal, acoustic, mechanical, fireproof, insulating and tribological performance, etc.

Recyclability and incorporation of plastic wastes (agglomerates, sheets, profiles, etc.). Shelf life analysis.

Substitution of traditional materials by plastic materials. Thermosetting and thermoplastic composites.

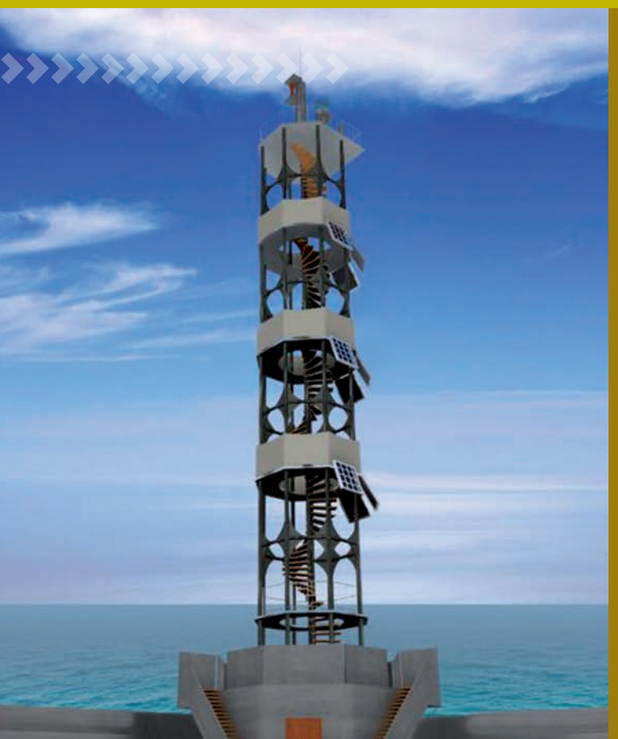
Development of intelligent plastics: aspect (colour and shape) and sensor changes (pressure, temperature).

Incorporation of plastic materials from renewable sources.

Development of functional surface finishes (anti-scratch, anti-vandalism, ultra-hydrophobic surfaces, antifouling, etc.).

Adhesion technologies.

Nanomaterials, nanotechnology and nanocomposites.



Technical Assessment

Analysis and failure cause (rupture, colour changes, etc.) and plastic construction products search (pipes, sanitation, etc.).

Assessment in complying on the legislative and standard requirements (contact with water for human consumption, CTE, RITE, REACH, Regulation on Petroleum Installations).

Functional design of the product and the prototypes.

Structural calculation.

Ecodesign.

Improvement of formulations. Selection of materials and additivation.

Characterization of the final product.

Involvement in normalization activities.

Industrial and technical studies.

Comparative characterization of samples.

Environmental impact evaluation.

Evaluation/certification of sustainability, energetic efficiency.

Analysis and Testing

Testing laboratory accredited by ENAC according to the standard UNE-EN ISO/IEC 17025. AIMPLAS is the Spanish centre with the highest level of accredited tests in the plastics industry

→ **Identification and analysis:** polymers, fillers, reinforcements and additives. Characterization of thermosetting resins.

→ **Rheological properties:** flow Rate. Rheometry. Viscosity. Thixotropy index.

→ **Behaviour to external agents:** climate tests, accelerated weathering, behaviour to fire, resistance to chemical agents and oil products. Stain resistance. Thermal shock resistance.

→ **Analysis of construction products in contact with water for human consumption:** pipes, water tanks, joints and welding, linings, fittings, membranes, etc.

→ **Physical and thermal properties:** density. Vicat softening point. Heat Deflection Temperature (HDT). Gas tightness. Dimensional stability. Surface roughness.

→ **Mechanical properties:** tensile yield, (-70ºC to 250ºC) bending. Compression. Impact. Tear resistance. Hardness. Static and dynamic friction coefficient. Pipes hydrostatic resistance. Static puncture resistance. Dynamic perforation resistance. Bendability at low temperature. Overlaps. Friction characteristics. Longitudinal shrinkage. Mechanical characterization of sandwich structures. Water permeability. Taber abrasion.

→ **Optical properties:** Brightness. Transparency. Colour coordinates. Turbidity.

Competitive intelligence

Technological Surveillance services adapted to the needs of the company.

Competitive environment control system; it allows to analyse the starting points, to control the environment evolution before any decision-making and generate and manage business ideas/opportunities within the fold of the company.

SDI-standards: permanent updating service of the technical standards' file of each company via online.

The Plastics Observatory: technical innovations, the latest technology, legislative and market news, aid and subsidies, technology supply and demand, etc.

State of the art: customized reports about the area of interest of the company.

www.observatorioplastico.com

List of some of the most representative plastic products in the sector

Sheets:
- Flexible waterproofing sheets
- Tar polymer modified sheets
- Geotextiles
- Geosynthetic barriers
- Coatings

Tanks:
- PE/PA/PRFV tanks

Tanks and sewage treatment plants:
- Prefabricated septic tanks
- Domestic prefabricated sewage treatment plants

Canalization systems:
- Supply/irrigation PE pipes
- Supply/sanitation PP, PVP pipes
- PRFV pipes
- Valves

Bathroom fittings:
- Baths, kitchen sinks, toilets, shower trays, bidets

WPC:
- Wood Plastic Composite

Profiles
- PVC, PP, Pultrusion, PRFV, etc.

Solid Surface:
- Materiales de superficie sólida decorativa

Urban furniture and decoration:
- Containers, litter bins, flowerpot holders, playing areas, furniture, etc.
- Pavings, sidings and facades

Structural elements:
- Profiles and reinforcements
- Modular construction