



AITE

Research, Innovation and
Advanced Technical Services
Centre

© 2011 AITE. All rights reserved.

The **AITEX - Textile Research Centre** is a private non-profit making association established in 1985, composed by textile and related-to companies and, whose main objective is to improve the textile companies competitiveness, promoting modernisation actions, new technologies introduction and improvement of the company and products quality.

AITEX acts on behalf of the textile and clothing industries in Spain and overseas, having our Institute a strong industrial representation. More than 800 companies are associated to the institute and around 33% of the Spanish textile and clothing companies are regular customers (1426: March '04).

The 80 qualified professionals that made up AITEX' staff, have as the main goal the optimum development of activities aimed at the support of the textile and clothing sector. Among the many different tasks that the Institute fosters, there must be emphasized: Standardization and quality, I+D Projects, European projects, New Technologies and Training.

AITEX is part of different associations both at national and international level, such as: Spanish Association of Fire Laboratories (AELAF), Spanish Association of Chemists and Colourists (AEQC), Spanish Association of Normalization (AENOR), National Entity of Accreditation (ENAC), Spanish Federation of Innovation and Technology Entities (FEDIT), International Association of Research and Test in the field of the Textile Ecology, European Association of Clothing Industry Research Centres (CIRCEA), «Consell Econòmic i social d'Ontinyent».

AITEX is also member of several national and international networks, such as: The Network of Technological Institutes of the Valencian Community (REDIT), The Spanish Federation of Innovation and Technology Entities (FEDIT), Textile Transfer Network (TEXTRANET), ÖKO-TEX, European Group of Experiences Exchange on the Direction of the Textile Research (GEDRT).

AITEX infrastructure is especially headed towards the development of R+D+I projects and activities of general interest for the sector. On the one hand, AITEX takes part in activities dealing with confidential applied research to improve products, applications and processes. On the other hand, the Institute co-operates with international entities, other research centres and textile companies all around Europe to develop transnational projects throughout the creation of international research partnerships and consortiums.

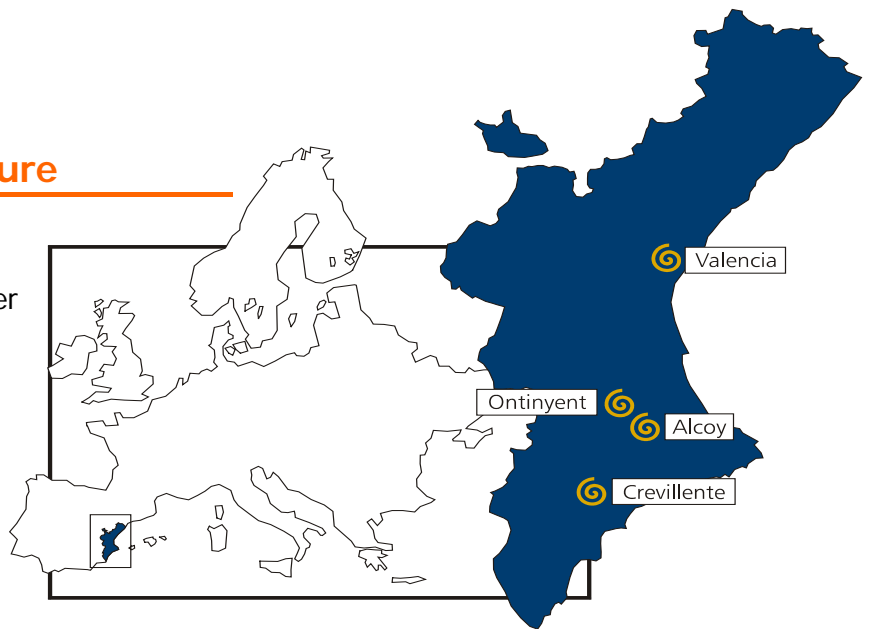
Its internal and functional structure is based on departments and technical units in the area, which assure the achievement of the objectives proposed. All its programmes and actions come out as a supporting instrument inside the framework of the technological necessities of the textile companies

Organisational structure

Technical delegations

Our aim is to bring AITEX closer to industrial areas.

- Alcoi (headquarters)
- Crevillente
- Ontinyent
- Valencia
- Morocco
- Pakistan



Activities

Chemical – Physical laboratories

- Chemical tests (related to most of the worldwide standards, especially Oeko-Tex).
- Microbiology – mites
- Waste water tests: and other environment technical assistance.
- Emission of Volatile Organic Components
- Legionella
- Physical tests: tests (related to most of the worldwide standards, especially, PPEs, etc).

Fire behaviour Laboratory

AITEX is a Notified Body for compliance with the 89/106/EEC Directive, relating to Construction products for the Euro-classification of floor covering materials.

It offers tests on different types of materials to satisfy the needs of the textile industry in the area of standard applications. The laboratory is certified by ENAC according to the standard EN 45001.

Geotextiles Laboratory

This laboratory offers tests and advice on different types of materials in order to meet the needs of the industry in the area of Geotextiles, and an assessment service to manufacturers of Geotextiles on the working systems, quality and production control to obtain EC certification.

AITEX Laboratories carry out a huge variety of activities from certification and test reports, to calibration, maintenance, and inter-comparative tests. They offer very diverse services related to the present textile standards and to the different tests to characterise the chemical products applicable to the textile materials. The tests carried out, include a great field inside the textile products, processes and materials identification and determination, taking advantage of their properties for their measurement, either qualitative or quantitative. For this reason, the laboratories have the most complete and advanced equipment to carry out testing.

Quality and Environment Consultancy

- **Legistex:** environmental legislation and standards applicable to the textile sector.
- **Environmental services:** to incorporate harmless environmental practices to their processes.
- **Toxic and hazardous waste minimisation plans:** to reduce sub-products and pollutants generated by a certain productive process.
- **Quality Managing System Implantation** to promote quality systems with the aim to improve their market competitiveness.
- **Technical Consultancy**
- **Verifications** of the different equipment

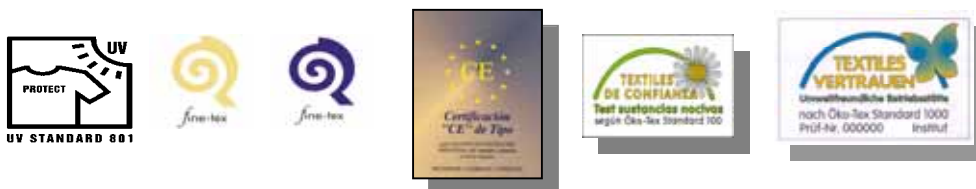


Information and Communication Technologies

- **ICT Services:** to facilitate the integration of companies in the information and communication technologies, with services applied to intercommunication among the different parts of the textile chain.
- **www.textil.org:** It is the Internet Advanced Services tool for the Spanish Textile Sector, comprising a: corporative web, catalogues of products, virtual shop in the company web, service for private orders with remote control, 3D virtual service in www.trade.org.

Certifications

- **UV label:** for long-exposed-to-sunlight textiles.
- **Fine-Text:** for indoor upholstery. Fine-Text Yellow; general domestic use. Fine-Text Blue; general public use.
- **Oeko-Tex 100 and Oeko-Tex 1000:** criteria and limit values to control the harmful substances in textiles.
- **PPEs:** labour protection gloves and clothing, including aprons and protection vests, according to the Community legislation 89/686/CEE.
- **Eco-Label:** ecological criteria for all types of textile articles and production process.



R+D+I Projects

- **International Projects**
AITEK carries out confidential applied research in order to improve products, applications and processes. AITEK co-operates with many research centres and textile companies all around Europe to develop R+D+I transnational projects.

- **Projects in co-operation with companies**
AITEX carries out national research projects to provide the textile sector with the requested technological innovation to increase its national and international competitiveness.
- **Technical Textiles**
 - Detection of opportunities and possibilities of technological innovation.
 - New opportunities and ways of differentiation.
 - Business behaviour about innovation and new uses.
 - Adaptation capacity of new processes and services
 - Products innovation plans.
- **Pilot plants for Wastewater purification:** to re-use the textile wastewater.
- **Textile Technological Observatory:** to make the follow-up of the current technology and its evolution.
- **Artificial Vision:** to detect on-line mistakes.
- **Digital printing:** to perform:
 - Samples printed according to the company's designs
 - Collections of samples (production samples)
 - Training courses
- **Plasma treatments:** to test with new surface treatments and apply them at industrial scale.
- **Hygienic textiles:** to develop textiles for use in personal care.
- **Filtration:** to create and improve filters for dangerous particles.
- **Intelligent Textiles**
- **Nano-technologies :** Nanoparticles in the fiber, finishing, coating,

Training

- **Occupational training**
- **Professional Specialisation Diplomas (P.S.D.):** in Textile Technology, in computerised Design and Pattern-Making, in computerised Design of Jacquard Fabrics.
- **Occupational courses:** Weaver in shed looms, Clothing-machinery operator, Pattern maker / Pattern grader, Holder and CAD Jacquard assistant.
- **Official Degree in Career:** Technician in Spinning and Weaving Production
- **Continuous training courses**

AITEX offers its services to the sector, implementing continual training activities in order to increase the technological know-how of active professionals and technicians.

- Attendance courses
- Customized courses
- Distance courses
- Conferences and seminars

- Apprenticeship distance training
- In-company training plans.

Pilot plants

AITEX has 3 pilot plants located in Alcoi and in the Technical Units of Valencia and Crevillente. These provide different services for the development of new products and methodologies, technical assistance to companies and refresher training for professionals. These 3 pilot plants are:

- Automated cutting pilot plant (Valencia)
- Weaving pilot plant (Alcoi)



- Carpet weaving pilot plant (Crevillente)

In addition we have a coating and laminating plant, a digital printing machine, a low pressure plasma equipment (and contact angle) and a thermal manikin.

In the next month we will have an extrusion plant (to be used in researching for nanotechnology applied to textile)

Office of Research Result Transfer

AITEX has a Research Results Transference Office (RRTO) which carries out the following services :

- Information and advice to the textile companies about regional, national and international programmes, support, grants and projects in which the companies can take part .
- Support services to the textile companies in management, preparation and elaboration of R+D proposals. Partners searching services to form international partnerships.
- Participation proposals to the textile companies in certain projects of AITEX R+D Department.
- Information about courses, seminars, conferences, discuss forums, etc. about research and development topics.
- Technological scientific advice and support for the development of new products and services.

- Information and advice to the companies about the technologies they may need and facilitate its interrelation with the autonomic, national and international units.

Technological Vigilance

In May 2002, AITEX set up the first world technological textile manufacturing observatory, offering users the possibility of consulting and gaining greater insight into the technological characteristics that new products may present in the medium to long term. At the same time, it helps to define and specify corporate objectives with lesser risk levels and uncertainty.

The chosen method of dissemination was INTERNET, with access from the www.observatoriotextil.com or www.innovaciontextil.com portals created specifically for this purpose.

The observatory is structured in such a way that it may be accessed from three different perspectives based on the type of information that is required about any of the different products that are currently catalogued. Information can be obtained about anything from the technical file about the state and evolution of certain technical developments to their current applicability or predicted future "opportunities"; from "technological evolution maps" obtained from the processing of a large amount of data on specific subjects to attain global visions of their trends to "reports" that describe the background, current state, possibilities and limitations and evolution trends of a certain technology or process in the short and medium term.

Protective Equipment Against Mechanical Risks

AITEX currently has equipment for the certification of PPEs against mechanical risk, including trousers, gloves, leggings and jackets against the risk of being cut by a hand-activated chainsaw.

AITEX is currently the first laboratory in Spain and the fourth in Europe to possess the equipment to certify these items: gloves against mechanical risks, abrasion resistant, tear resistant, knife cutting resistant, piercing resistant and clothing against the risk of getting caught by moving machinery.

48-hour service laboratory

It offers specific services for all those special applications, previously arranged with our customers, as well as agreements, with a continuous, periodical and quick development of the quality control of the textiles:

- 48-hour service
- High technology laboratory equipment
- Customised test reports for each type of customer, via e-mail

Computerised pattern making

- To motivate, advice and introduce the companies into the new computerised industrial pattern making and design technologies in the market.
- To provide technical support on computerised pattern making.
- To issue technical reports about subjects interesting for the Clothing Sector.
- Refresher training for textiles professionals.

Research Lines

Our action lines of co-operation are:

- Development of research projects funded by the European Commission on different relevant topics: clean technologies, new processes, new communication technologies, etc.
- Development of the international research partnerships within the framework of the European Union Programmes.
- Increase of the internationalization level of the EU textile and clothing sector to have enough critical mass to access other worldwide textile regions.
- Development of research activities through the implementation/participation in road-maps, Integrated Projects and Networks of Excellence under the auspices of the EU Sixth Framework Programme (FP6) for Research and Technological development (2002-2006).

The most outstanding issues for 2005 are focused on Traditional and Technical Textiles:

- **Digital Printing**
- **Low pressure plasma treatments**
- **Micro-encapsulation**
- **Geosynthetics**
- **Artificial vision**
- **Protective clothes for thermal insulation (thermal manikin, skin model...) and for mechanical risk**
- **Automotive**
- **Coating and laminated**
- **Filtration**
- **Medical and hygienic textiles**
- **Intelligent textiles**
- **Nano-technologies (2005)**

Contact Data

Managing Director:

Mr Vicente Blanes (vblanes@aitex.es)

Responsible for the Department of International Projects:

Ms Rosa Lopez (rlopez@aitex.es)

AITEX - Instituto Tecnológico Textil
Plaza Emilio Sala, 1
03801 Alcoy – España

Tel. No.: +34 965 54 22 00

Fax No.: +34 965 54 34 94

www.aitex.es
www.textil.org
www.observatoriotextil.com