

HIGHTEX 2010: Middle East and Eastern Europe meeting of technical textiles

HIGHTEX 2010 will bring together raw materials, intermediate products, finished products and production techniques of technical textiles and nonwovens during 15-18 May 2010 at Tuyap Fair, Convention and Congress Center in Istanbul, Turkey. The first and only exhibition in its kind in Turkey, HIGHTEX 2010 is the 3rd edition of HIGHTEX Istanbul Technical Textiles and Nonwovens Trade Fair, at which raw materials, intermediate product and finished products of technical textiles will be exhibited, will be the largest meeting point of the technical textiles of Middle East and Eastern Europe.

HIGHTEX 2010 will bring together the raw materials, intermediate products, finished products and production technologies of technical textiles, the shining star of the sector, and will host worldwide leading companies in this respect.

In HIGHTEX 2007 more than 320 expert companies presented their latest products and technologies on technical textiles and 170 of those companies were foreign exhibitors. The show was attended by 10,000 professional visitors, 3,200 of which were foreign visitors.



The product types to be displayed at Hightex 2010 are as follows:

- ❖ **Technology:** Airlaid, Crosslapper, Drylaid, Meltblown, Needle punch, Spunbond, Spunlace, Stitchbond, Thermobond, Weblaiding, Waterlaid.
- ❖ **Machines:** In this category; there are flame retarding technologies, refining and renovation technologies, packaging machines, waste and recycling technologies, bonding and separation technologies, printing machines, dyeing and general finishing, narrow weaving and converting machines, fiber tearing machines, flocking-impregnation systems, embossing machines, needling machines, coating and lamination systems, cutting and separation systems, drying systems, laboratory measurement equipment, micro-organism protection technologies, multi-filament systems, Nonwovens processing machines, plastics and other hardening materials, plasma application technologies, robot technologies, rag pulling machines, technical textile weaving

machines, tufting machines, braiding machines, adhesive mixture and implementation systems.

- ❖ **Raw materials:** Polymer chips and granules, bands and elastic, bind-latex and foams, fibers and filament, super absorbent, reinforcement textiles and fibers, tampons, structural composites and patterns, adhesives, hot melts, adhesive films and coating powders, adhesive and pattern materials, surface processing chemicals, acrylic fibers, biodegradable fiber materials, glass fibers, natural fibers, recycled fibers, flame retardant fiber, carbon fibers, metallic fibers, polyester fibers, melting yarns, filament yarns, high-tech yarns, polypropylene yarns, polyester fibers, polyamide yarns, cellulose and synthetic yarns, carded yarns and textile glass fibers.
- ❖ **Finished products:** Agrotexiles, construction textiles, clothing textiles, road and ground textiles, decoration textiles, industrial textiles, food tex-

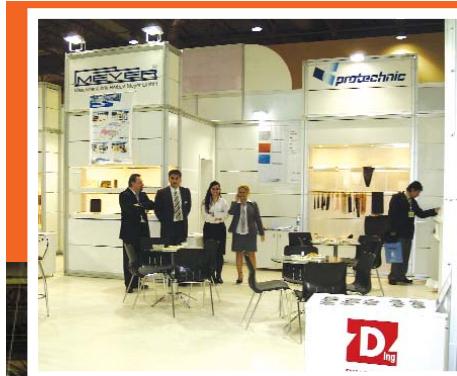


tiles, medical and hygiene textiles, cleaning and cosmetics textiles, transportation industry textiles, environment protection textiles, packaging textiles, protective textiles, sports textiles.

- ❖ **Smart textiles:** The smart textiles, which aim to facilitate people's lives, are used in many fields.

Main examples and applications of smart textiles in the world are:

- ❖ Socks that prevent cellulite.
- ❖ T-shirts that do not cause germs.
- ❖ Clothes and socks that prevents sweat odors.
- ❖ Pajamas that repel insects.
- ❖ Pullovers that adapt to climate.
- ❖ Cooling swimsuits and jackets.
- ❖ Garments enabling listening to music.
- ❖ Sportswear that do not get wet in rain, that warm/cool as per wearers needs.
- ❖ Nano technological products, fabrics.
- ❖ Wearable computers.



Hightex 2007 exhibitors.

- ❖ Clothes that rest with vibration.
- ❖ Outwear with illumination.
- ❖ Soot, metal, chemical liquid-gas protective clothes.
- ❖ Remote control pillows (electro clothes).
- ❖ Medical pads that measure body temperature and transfer to computer.
- ❖ The clothes that warms in cold environment.
- ❖ Biorhythm compatible clothes.
- ❖ Underwear that does not stick with sweat.
- ❖ High temperature resistant outwear.
- ❖ Curtains that permit light.
- ❖ Painkiller hats.
- ❖ Shoes that massage foot.
- ❖ Stimulant underwear.
- ❖ Airbag clothes.
- ❖ Non-dust toys.
- ❖ The clothes that breathe in normal environment, air proof in cold environment and heat protective.
- ❖ Assistant clothes that describe the way GPS enabled devices.
- ❖ Special technical textiles those are produced instead of plastic as coating material.
- ❖ Perfumed clothes or clothes that give off fruit-chocolate odors.



Developing market of technical textiles

In Turkey, being one of the most important centers of world textile industry, technical textiles market started to develop in the recent years thanks to the development of high value added products.

The producer companies, which started their activities with simple products in 1970s, now export tones of technical textile raw material or end products to the world. Especially Meltblown, Spunbond, Spunlace, Thermobond, Waterlaid technologies are preferred in Turkey.

Technical textile producer companies produce raw material or intermediate products used by all the sectors, mainly construction, ready made clothing, geo textiles, home textiles, cleaning / cosmetics/ hygiene, automotive, packaging, food industries. The producer companies operating in Turkish market have just discovered technical textiles market, they define

themselves as a part of this sector. Due to increasing global demands for their products, the producers continuously make technological investments in order to renew their technologies and increase their capacities. Also many new companies have started to operate in the sector and those are aiming to start smart textile production as well. Turkish producers receive better attention of international customers due their Research and Development and Production investments. Also the products marketed by most of the end product producer companies under their own brand receive worldwide interest. There are hundreds of companies operating in this field in Turkey.

Applications of technical textiles

Agrotextiles: These days more and more technical textiles are required for protection, harvesting and storage in agriculture, forestation and fishing. In this category, the consumption of technical textiles, which are developed especially for fish farm equipment and agriculture applications, is increasing rapidly. Soil erosion prevention and forestation studies are realized with technical textiles. In greenhouse coatings, climatizing textiles replace conventional plastic coatings rapidly.

Construction textiles: Today the prevalence of technical textiles in construction applications have increased thanks to their flexibility and elasticity. Technical textiles replaced classical filling materials with their stable position between two separate surfaces.

Technical textiles are the favorite of construction sector in various regions of the world with their perfect resistance against different climactic conditions. The composite materials are used in the recent years, in building applications resistant to earthquake. Similarly, special fibers are added in to the mixture of ready-mixed concrete in order to increase its durability.

Clothing textiles: Inter-lining, padding, inter-facing and such products, commonly used in textile for years, especially in the ready made clothing industry. Technical textiles in clothing sector are always sold for higher prices than the other products. In this category, woven and knitted products are widely used, sportive and military high performance clothes promise well for the future with their high tech product engineering. In view of new technologies and changing costs, special clothes that can be worn daily are the new addition to this category.

Another development is the increase of technical textiles use in shoes and leather wear sector with comfort and ventilation purposes.



Geo textiles: The fastest growing product range of the recent period among the others is Geo textiles. Despite low product diversity, high consumption speeds up the pay back period of the initial investment.



Geo textiles, which were only used in the developed regions of the world, in the past, now finds their application areas almost in any part of the world, with reasonable profit and price ratio. The infrastructure investments of developing countries require higher amount of Geo textiles than expected in recent years. Geo textiles are increasingly used in the building floors for the purpose of insulation and stability. Each year increasing geo textiles requirement, makes it necessary for a country to increase its local production in Turkey. The compulsion of using Geo textiles stated in the contracts of highway contracts in the recent years, shows that the demand in this market will further increase in the future.

Decoration textiles: The percentage of technical textiles used at homes and offices have increased in the last 10 years. From carpet backing to furniture frames, from beds to kitchen and bathroom materials, textile products made from nonwovens are being used. On the other hand, the percentage of synthetic fibers consumption also increases in home textiles and furnishings. Especially, the new trend of home textiles market is flame retardant fabrics. New technological products have also taken their place at homes and offices.

Industrial textiles: The most common application of technical textiles is industrial applications. Technical textiles with special structure are required for the transportation of the material in the plant, classification of the products according to their sizes or in filtering processes, during cleaning and polishing

processes. New environment regulations highlighted that filters are to be made of technical textiles, and there are unlimited application areas. Technical textiles provide solution not only for dust, but also for liquid, gas and oil filtration.

Food textiles: In the recent year, the use of technical textiles in food packages increased. Some of these products are also edible textiles. Now easy-clean technical textiles are preferred for the transportation of food in the production environment; and while they are kept in shelves. Also the first examples of protective technical textiles received great attention during the heating, boiling and serving of the food. This is expected to be the fastest growing product group of food textiles since it is a very novel category and offer hygienic benefits.

Cleaning / cosmetics textiles: The rapid increase of the use of disposable products in cleaning and cosmetic products sector bring the changes in user habits together. That is why, it is seen as a rapidly growing sector parallel to increasing production capacities. Technical textiles completely replaced the non qualified textile products in home, factory, office and outdoor cleaning products. This group has seen latest developments with the new products, which are sensitive to dust and liquids.

Medical/ hygienic textiles: Generally the market of health and hygiene products grows parallel to world's increasing population. High standard and complex textiles were always required in medical operations. The demand for such textiles is expected to increase in unsaturated markets of developing countries. Hygienic textiles market is candidate for rapid development with the new products' becoming wide spread due to increase in awareness and legislative changes in medical and hygiene sector.

Transportation textiles: Transportation sector constitutes the most important market for technical textiles in many fields from automobiles to trains, from boats to aircraft. While the past uses were generally for insulation

and coating, currently comfort and smartness with reduced cost stand out among various requirements. Coatings of personal cars and trucks and sailing clothes are now developed in order to offer better resistance against air conditions.

Ecological textiles: Although ecological textile products are one of fastest diversifying and developing category of the recent years, yet it has the smallest market share. Ecological textile category, which includes technical textiles used in environment protection studies, consists of many different products for dust and smoke filtration, prevention of erosion, covering the toxic garbage and the control of harmful liquids. Ecological textile products also attract attention with their high profitability in pricing. Due to the fact that the technical textiles in this category get smarter rapidly, the filtration of many different and particular wastes that are not included within environment protection standards will also be included in future.

Packaging textiles: The sacks and bags made of natural fibers, such as jute and cotton used for a long time have now outlived their place to modern synthetic fibers. Also the types of big bag and FIBS party packages, are some of the applications. Technical textiles have begun to show up in low weight packaging processes, heavy load envelopes and food packaging markets. Also the knitted textile products have an increasing use in consumer packages.

Protective textiles: Industrial protective products enter almost in any branch of industry and they are preferred increasingly. From heat resistant gloves to heat or cold resistant clothes, from protection bands to protective materials in the shoes, the products and application have become diverse and cost efficient. The special uses start with waterproofing in umbrellas, sportswear, etc. The protective finishes on clothing fabrics and home textiles are increasingly used depending on customer demands.

Sports textiles: Preferred by professional sportsmen, the comfortable, reliable sports apparel are demanded by both sportsmen and amateurs. The increasing demand active sports over the world has led to an increase in use of technical textiles in sporting goods.

Courtesy: Murat Cavdar, Teknik Ltd. ♦

