

TAIPEI INNOVATIVE
TEXTILE APPLICATION SHOW
2018 台北紡織展



Opening up New Market Opportunities Through Innovation, Sustainability and Fashion

TITAS 2018 TAKES LEAPS UPWARDS IN ALL ASPECTS

With a new momentum of innovation and advantages in smart technology, Taiwan's textiles look proudly towards the international arena! Innovative textile supply chain manufacturers and international buyers converged upon the 22nd edition of the Taipei Innovative Textile Application Show (TITAS 2018), where, in addition to a scale reaching 1,003 booths, setting a record high, over 36,000 visitors and 106 brand representatives from around the world came to TITAS, creating business opportunities estimated to be worth around \$70 million.



While continuing to focus on functionality and sustainability, Taiwan's textile industry is developing new advantages on the strength of its smart technology. At TITAS, held annually by the Taiwan Textile Federation (TTF) and guided by the Ministry of Economic Affairs' Bureau of Foreign Trade, new business challenges are taken up to seize new business opportunities.

Perhaps your memory of this year's sports event, the Football World Cup, is still fresh. When England entered the semi-finals,

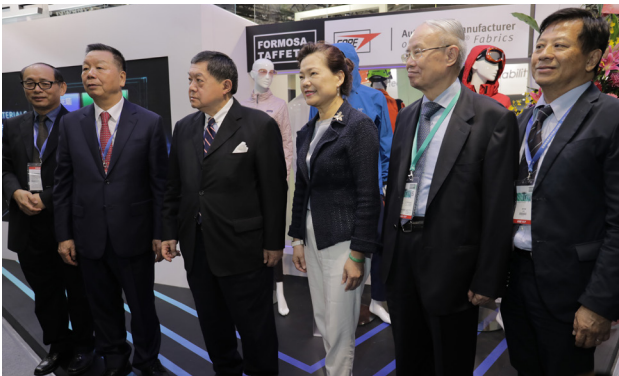
the British Office Taipei gave special thanks on Facebook to local fans for their support, and at the same time mentioned that the England team was wearing breathable clothing researched and developed by Taiwan's textile industry. Furthermore, among the top 16 teams in this round of the World Cup, three-quarters of the players' uniforms were made with Taiwanese functional fabrics. This is testament to the sturdiness of Taiwan's strength and the fine reputation it has made for itself internationally.

Driving textile industry's new momentum with innovation and advantages in smart technology

"On the strength of Taiwan's textile industry's past efforts in innovation, research and development supported by a complete supply chain, plus the achievement and steadily development with respect to functional, eco-friendly, and smart textiles, we have constructed a high-tech innovative textile value chain," said Vice Minister of Ministry of Economic Affairs, Mei-Hua Wang, pointing out this advantage, while also positively affirming the important contribution of TITAS to the promotion of Taiwan's textile products.

Chairman of TTF Chan, Cheng-tien said that this year the show made its dignified entry into the 22nd year. Enjoying the enthusiastic participation of the industry, the exhibition features a total of 1,003 booths and has attracted a multitude of international brands and retailers to Taiwan in search of more high-tech innovative products. Consistent with the trend toward conversion to Industry 4.0 which highlights smart technology, this year's show specially added a smart textile pavilion which displayed smart clothing, production processes and all-round solutions, creating a refreshingly new and novel experience for visitors through augmented reality (AR).

Even though there may be economic instability due to the US-China trade war, Douglas Hsu, TTF's Honorary Chairman, pointed out that, "future development of the industry should focus more on technology, moving towards environmental protection, smart manufacturing and supply chain integration. With a momentum of continuous innovation, we are able to meet future challenges".



Vice Minister of Ministry of Economic Affairs, Mei-Hua Wang visits the Formosa Plastics Group.



Vice Minister of Ministry of Economic Affairs, Mei-Hua Wang visits Far Eastern New Century.

TITAS 2018 revolved around the four themes of "sustainable development, functional application, smart textiles, smart manufacturing". Apart from displaying fashionable textiles featuring innovative designs and quality, smart technology, eco-friendly functionality and smart production process and applications have all been taken one step further. In cooperation with the Taipei Sewing Machines Association, invitation to participate in this year's show was extended to Taiwan's sewing equipment businesses, who fully demonstrated their capabilities in upgrading to smart manufacturing.

Industry leaders showing mettle; comprehensive applications starting out from daily life

In order to showcase the entire well-integrated production process as well as services from fibers to apparel fabrics, Formosa Plastics Group subsidiaries including Formosa Plastics, Nan Ya Plastics, Formosa Chemicals and Fibre and Formosa Taffeta jointly launched a Formosa Plastics Pavilion. Taking "Technological Intelligence and Sustainable Value Creation" as its theme, the pavilion displayed fashionable down fabrics, popular sportswear and outdoor leisure clothing, as well as the all-round development of materials used in production, fully implementing the concept of applying technology to daily living, the pursuit of refined quality and a resolve to incorporate green energy to everyday life.

Tairyfil carbon fiber, a carbonized filament developed and produced by Formosa Plastics, boasts the characteristics of being stronger than steel, lighter than aluminum, acid and alkali resistant and with excellent electrical conductivity. It has a wide range of applications, including such fields as sports equipment, wind turbine blades, motor vehicles, airplanes, ships, and so on. A full range of specifications for the filament with top quality are now available.

Nan Ya Plastics in recent years has enthusiastically entered the new fiber market with the launch of LuminMax light-storing fiber, new dope-dyed yarn Chromuch with a color fastness greater than grade 4, Chromuch-lux featuring an elegant gradient effect, and a comfortable elastic material Spanfit. There are also others, such as mechanical stretch filament yarns developed for knits, polyester fibers made from recycled PET bottles, as well as UV-resistant fibers and antibacterial polyester fibers.

Formosa Chemicals and Fibre's key product is a series of high-quality rayon fibers with eco-friendliness appeal. The series has a wide range of applications such as a high denier rayon fiber which is bio-degradable and has sound and heat insulation property, ideal for the aerospace industry; and a skin affinitive rayon fiber for non-wovens to be used as medical and cosmetic materials. The company's functional nylon filament is able to meet market demands for lightweight, function and fashion through a breakthrough in polymer technology. It's also worth mentioning that Formosa Chemicals and Fibre and Formosa Taffeta have cooperated in the development of a recycled nylon fabric.

The smart clothes brought out this year by Formosa Taffeta incorporate hi-tech textiles with mobile apps, featuring thermal,





Formosa Plastics Group integrates Formosa Plastics Corp., Nan Ya Plastics, Formosa Chemicals and Fibre and Formosa Taffeta to launch the Formosa Plastics Pavilion.

temperature control and LED color display functions. These products boast safety, protection, and health and fitness qualities, taking their textile applications to the next level.

Far Eastern New Century's participation at TITAS 2018 was magnificent with its greatest ever scale. Its exhibits adhered closely to the elements of innovation and sustainability, vertically integrating manufacture processes while expanding its R&D to various strata of daily life. For example, in response to our laundry need, a brand new clothing protection product named FENC® Fabric Shield has been developed with functions of softening, antistatic, decontaminating and above all, reducing the amount of detergent needed by up to 80%. Other products displayed included new functional quick-drying yarn, synthetic down alternative fiber, advanced fiber with long-lasting water-repellent effect, eco-friendly yarns and nylon fibers.

With its long-term investment in green sustainability, from products and services to production processes and raw materials, Far Eastern New Century fully demonstrates the importance it attaches to environmental protection and innovative research. The company is actively reducing resource loss and recycling wastes from landfills and the sea. Working with adidas and the non-governmental organization Parley for Parley Ocean Plastic project two years ago, the company has developed recycled yarns using marine plastic waste to produce footwear. 5 million pairs of shoes were made with these yarns in 2018 and the number is expected to rise to 11 million in 2019. The company endeavors to do its utmost for the Earth through action. One example is that, after employees doing their bit for the Earth Day by taking part in a clean-up campaign, the discarded PET bottles collected were processed and then made into functional socks, footwear and other made-up goods.

The rise of fast fashion has brought attention to clothing waste. Far Eastern New Century has also put forward FENC® TopGreen® rTex, the world's first recycle solution for textile waste which, through a chemical recycling process, dissolves polyester, filters dyes and converts cellulose into fuel rods to serve as a source of renewable energy, creating a new value for discarded textiles that previously could only go to landfill sites.



Far Eastern New Century fully demonstrates the importance it attaches to green sustainability.



Shin Kong Group shapes a new corporate atmosphere with eco-friendliness and humane concern.

Breaking tradition and embracing new opportunities; pursuing innovation and sustainability

Concentrating on textile industry only, Eclat specializes in the development and production of high performance fabrics and garments. The company has a complete vertically-integrated supply chain covering weaving, dyeing and apparel making via production processes complying with international environmental standards. This year, combining fabric design with automated processes, the company made a superb presentation of the most important aspects of functional fabrics-fast drying, breathability, moisture management, light weight and flexibility.

TexRay, which has a complete global deployment, has its eyes on the development of the Internet of Things (IoT). With a forward-looking vision, the company has invested substantial efforts into innovative applications of smart clothing. Whether it's for sports, outdoor leisure or remote care, the products are able to meet the needs of daily life without compromising fashion and function, letting the wearer easily embrace a smart lifestyle.

Corporate value and innovative R&D are important force to support established enterprises in creating new opportunities. Tainan Spinning, with a history of more than 60 years, is also advancing with the times by creating new varieties from traditional yarns. UMORFIL, an innovative collagen-like biomimetic material developed by the company, is skin friendly, moisture preserving, highly elastic and bio-degradable.

Shin Kong Group made its appearance at TITAS this year again. A consistent devotee of environmental protection, the



Tainan Spinning is keeping up with the times by giving a new look to traditional yarns.



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Eclat specializes in the development and production of high performance fabrics and garments.



Yi Jinn employs nanotechnology to develop nano copper antibacterial fiber.

group this year has extended its environmental concern to humane concern. Shin Kong Group has cooperated with the brand Thread to jointly invest in teaching the people of Haiti and Honduras the skills to make a living, improving their living conditions through structural change. In addition, responding to the global attention on heavy metal issues, the group has replaced the polyester reaction catalyst “antimony” with a brand new heavy metal free one while maintaining the original physical properties and appearance of the polyester fiber.

Yi Jinn, which is likewise developing products in the direction of innovation, sustainability, and a comfortable, healthy living, has employed nanotechnology to develop a nano copper antibacterial fiber which can be combined with materials such as PET polyester and nylon for applications in medical consumables, personal hygiene products, underwear and clothing and filter materials, creating multiple added values.

Attaching importance to non-toxic materials and environmental protection; realizing concept of cherishing the Earth through a spirit of sustainability

As the trend towards toxic free materials has reached the textile industry, “Make it toxic free!” for fashion has resounded around the globe. In 2014, Jintex led the industry by being the first to obtain bluesign® certification for more than 200 specialty chemicals products, and the company has progressively released a variety of non-toxic, EHS (environment, health and safety)-

compliant products, thus making its contribution to green textiles.

Everlight Chemical specializes in dyes and agents for textiles as well as providing total dyeing and finishing solutions. The company’s products include acid dyes with ultra-high color fastness or ultra-high brightness and laminating adhesives for different fabric applications. It also provides consulting services to help customers solve dyeing and finishing problems for precise production and reducing wear and tear.

With a rich experience in the development of TPU material, San Fang Chemical introduced its innovative PASHRON®, which breaks through the limitation of traditional yarns to seize business opportunities with its features including low-temperature molding, anti-abrasion, water repellency and recyclability. Then there is also the multi-functional TPU composite film LSCHYS®, which boasts better weatherability, low temperature operation, excellent elasticity and high washability, to be applied to footwear, apparel, outdoor products, automobiles, medical products, 3C products and sporting goods.

Honmyue has launched products including a renewable fabric that realizes the concept of energy conservation and carbon reduction; an environmental functional fabric made with elastic materials from recycled PET bottles and nylon; and the HONYI zero-opening solar/sun screen fabric, which effectively shades from sunshine and insulates from heat, making it an energy saving and environmentally friendly material.

Pursuing ultra-durable functionality and super eco-friendly technology, Sunny Special adheres to the corporate philosophy “Supply Green, Save Green”, striving to save and recycle energies

used in the production process. The company embodies its environmental protection concept by making fabrics that effectively reduce chemical discharge during washing, in short, both functional and eco-friendly.

Chia Her, equipped with a complete wastewater recycling facility, was the first mill in Taiwan to obtain organic certification for its vertically integrated production line from spinning, weaving to dyeing and finishing, in addition to many other international environmental protection certifications. NwoolTec™, Chia Her's brand for its performance wool and developed by its R&D center, is suitable for all year outdoor activity and fashion market, bringing consumers a more comfy wool-wearing experience.

Solis, with an operation integrating spinning, weaving, dyeing and finishing, insists on 100% self-manufacturing its products in order to maintain quality stability and price advantage. Emphasizing its care about the safety of all its dyes and chemicals towards the environment and health, the company has obtained OEKO-TEX® STANDARD 100 and bluesign® system certifications.

Stressing function and design; seizing global business opportunities through creativity

Responding to the market trend of incorporating sports, leisure and fashion, the New Wide Group has mixed different materials, styles and colors through its innovative fabrics and exquisite designs with “comfort” and “good hand” in mind. The group also offers refined knitted fabrics made with Eco-Poly and Recycle Poly to provide a greener choice to the market.

Be Be Cotton, which spares no effort in terms of environmental protection, exhibited its extra-long staple Supima® cotton fabric which boasts high moisture dissipation, softness, comfort and breathability and thus is able to reduce the demand for air-conditioning in hot seasons and help save energy. Supima® fiber also adds 50% stretch and an exquisite tactile feel to the fabric. By interweaving the fiber with high count cotton, polyester or polyamide fibers and then dyeing, the resulted fabric presents excellent appearance with low repeated dyeing rate, effectively saving water and reducing energy consumption.

Combining technology and nature, Kingwhale has full control of its production process from yarn texturing, knitting to dyeing and finishing to provide innovative and high-quality functional circular knit fabrics. The company has launched a new generation of energy-saving, environmentally friendly yarn via its L.I.T.® (Low Impact Technology) technology, which effectively reduces water and electricity consumption as well as the use of dyestuffs without sacrificing color quality and hand while enhancing fabric softness and performance.

Grand, a functional fabrics provider, has developed patented technologies such as Stone Cold® for cooling effect and Coffee Charcoal®, a material possessing functions including UV-cut, odor isolating, quick drying and thermo control. The company also brought us non-electronic smart fabric that automatically adjusts its functions according to the environment.



The New Wide Group exhibits both functional and stylish apparel, becoming a focus of the venue.



Be Be Cotton promotes extra-long staple organic cotton that spares no effort in environmental protection.

The Paiho Group, whose hook and loop tape products are unique worldwide, is a leading provider of trimming and accessories for shoes and apparel industries. At TITAS 2018, the company introduced TPU woven fabrics and warp-knitted fabrics for apparel and trimming, including an ultra-light, moisture wicking fabric, ideal for summer and a new choice for the market.

Giftstart has acquired international patents for a three-in-one technology which brings together rainbow-reflection, glowing-in-the-dark and pattern-varying visual effects, and has further developed reflective film, reflective cloth, as well as reflective and luminous piping with these effects. Moreover, for the 2018 New Taipei Sky Lantern Festival, the company produced the world's first energy-saving road sign that, after absorbing outside light sources, can reflect, radiate light and generate image-changing effect.

Yang Tsu, which has its origin in Taipei's Twatutia neighborhood, was the first supplier of custom bedding in Taiwan. From material, fabric, pattern design to quantity and even price, everything concerning the product can be tailor-made for clients. With an in-house design team, the printed patterns offered by the company are exquisitely designed with unlimited creativity.

Opening up new horizons; displaying smart textiles and manufacturing

Under the new core theme of this year's show- "smart manufacturing" - is a gathering of sewing machine and equipment manufacturers which attracted a great deal of attention. Among them, Kaulin, famous for its bestselling SiRUBA industrial sewing machine series, introduced fully automatic sewing systems which adopt Industry 4.0 technology and meanwhile, the company has improved its overall service efficiency through smart applications of the Internet, e-commerce and mobile apps; Ming Jang, an expert in four needles flat seaming machine, possesses dozens of exclusive design and technology patents of smart sewing; and Oshima, a textile and garment machinery manufacturer and global supplier, brought various kinds of large, high-speed, fully automatic machines for cutting, spreading, needle detecting and mark transferring, demonstrating its capability for a worldwide business operation.

Something new for the show this year is the addition of the smart textile pavilion, which covered smart textiles, smart manufacturing application and smart solution. In response to the incoming waves of industrial automation and intelligentization, TTF hopes to inspire the realization of a smart textile value chain so as to swiftly fulfill future needs of the market.



Kaulin exhibits fully automated equipment for garment sewing.



TITAS 2018 adds a smart textile pavilion.

Creating new business opportunities; gathering diverse overseas exhibitors

The enthusiastic participation of overseas exhibitors this year injected a rich and innovative energy into the exhibition. The eye-catching Indian Pavilion, for which members of the Federation of Indian Chambers of Commerce and Industry (FICCI) were invited to jointly display magnificent fibers, filaments, yarns, fabrics and clothing from that ancient country, was definitely one of the hot spots of the show.

Turkey's ISKO introduced its latest denim collection Arquas™, which stretches the limits of sport and fashion. From yoga to running, from outdoor to daily wear, Arquas™ demonstrates how ISKO's expertise in denim and woven technologies combined with sportswear and activewear innovation to create a unique collection for the performance apparel market.

And there was also Changshu Zhongzhou, equipped with a production complex integrating weaving, printing, dyeing and finishing, and testing and inspection, and supported by its own R&D and trading, it is one of the high-density and lightweight knitted fabric producers in China and has won the recognition of customers for its thermal fabric; and Shan Dong Companion Group, one of the top ten most competitive enterprises in China's wool textile industry, showcased its high-quality products that are environmentally friendly and energy-saving through efficient production processes. The participation of other overseas exhibitors from Japan, South Korea, China and Europe has also helped create innovation sparks inside the TITAS.



The Indian Chamber of Commerce and Industry exhibits Indian textiles and clothing which attract much attention.



Turkey's ISKO showcases denim fabrics that stretch the limits of sport and fashion.

International Buyers Congregate Innovative Textile Products Win Favor

Thousands of business meetings, with unlimited business opportunities, making an unprecedented grand event.



The TITAS keeps its finger on the pulse of the times, advances in sync with global trends, and has always been a heavyweight platform connecting Taiwan's textile industry with international textile world. This is particularly true for the business meeting arrangement, the highlight activity inside the show, which bridges local exhibitors and international brands and retailers every year to explore cooperation opportunity.

More than a thousand one-on-one meeting sessions were planned at TITAS 2018, attracting 160 exhibitors to meet with 106 international brands and retailers invited to Taiwan. The buyers came from 19 nations and regions including Germany, UK, France, Switzerland, Sweden, Italy, Norway, the Netherlands, Denmark, Spain, Russia, USA, Canada, Brazil, Japan, Korea, China, Hong Kong and Australia. Among the brands and retailers invited were America's Under Armour, Marmot, Burton, The North Face, Dakine, Academy Sports + Outdoors and Black Diamond; Italy's Salewa; Sweden's Peak Performance; Denmark's ECCO; Switzerland's

Intersport and Mammut; the UK's Diamond Icon and Britax; Spain's Ternua Group; Germany's Globetrotter and Vaude; France's Boardriders; Japan's Mitsui; mainland China's Li Ning as well as popular fashion brands such as Coach, Tommy Bahama and I.T.

Pursuing more innovative, intelligent, and superlative applications

One after another, brand representatives and international buyers from all over the world have affirmed the professionalism, uniqueness and irreplaceability of Taiwanese textile enterprises.

Representatives from Diamond Icon, the brand designing and manufacturing exclusively for the British Premier Football League's Everton from Liverpool, pointed out that in recent years, football kits have focused on smart technology and high functionality. Tracking every move athletes make through high tech devices has become a trend. "The enthusiasm and

innovation of Taiwanese manufacturers, coupled with fast and accurate delivery, have made our cooperation rather enjoyable." They found more innovative trimmings, accessories and print designs at TITAS 2018.

Academy Sports + Outdoors is a well-known American brand that offers a complete range of sports and leisure products at very competitive prices. They came to Taiwan to seek innovative fabrics and to observe local development of wearable technology and smart clothing for sourcing reference, and claimed that the show made the trip worthwhile.

Britax, a major manufacturer of child car seats and pushchairs in the UK, sells products worldwide. Apart from safety and comfort, their products also comply with the safety regulations of various countries. The heavy-duty fabrics supplied by Taiwan has helped their products win the favor of consumers. The company's purchasing representative said, "We look forward to the development of more types of functional materials for cushion, such as fast drying, cool and breathable, lighter-weight, to provide our customers with better choices."

Realizing concepts of environmental sustainability and protection

The buyer for the Spanish outdoor sporting goods brand Ternua Group, known for its adherence to the concepts of sustainable environmental care and animal protection, made it clear that cost was not the reason for coming to Taiwan to seek cooperation. Rather, the brand was to seek partners who share the same ideas and goals, to work together with them to solve the problem of micro-plastic waste, and make a difference to our planet.

Dakine, a primary sports clothing and gear brand for extreme sports from the United States, insists on making best products with a core value of respect to the land and the sea. Its representative said, "We're thankful to the Taiwanese companies we cooperate with, for vigorously meeting our brand requirements and always insisting on providing fabrics made through a process that meets with our ideas, enabling us to realize our commitment to the environment."



Li Ning, a sports brand from China, has already established huge retail network in China. On this occasion, the company came especially to look for functional fabrics and trimming for the 2020 Tokyo Olympic Games. They were also impressed with the rich choices of synthetic and reflective materials presented at the show, which could substantially add a fashion touch to their products.

Overall the most interesting product highlights at the show were functional fabrics and trimming that are moisture absorbent, quick drying, waterproof, breathable, laminated, coated, and eco-friendly, as well as wearable devices which provide functions such as temperature control, health care and warning. These eye-drawing products signify the constant and abundant innovative energy of Taiwan's textile industry as well as the rich business potentials thus generated.



Exhibitors

Exhibitor	Company	Share%	Booth	Share%
Domestic	391	86%	900	88%
Foreign	65	14%	103	12%
Total	456	100%	1,003	100%

Exhibits

Product category	Company	Share%
Apparel Textiles	192	42%
Trimmings & Related Products	71	16%
OEM/ODM Apparel & Accessories	51	12%
Textile Machinery / Sewing Equipment	44	10%
Fibers, Filaments & Yarns	38	8%
Upholstery & Industrial Textiles	28	6%
Dyes & Additives	7	1%
Textile Inspection & Certification	6	1%
Related Products & Services	19	4%
Total	456	100%

Purchasing Products

Product Category	Share%
Textile products for clothing use	57%
– Functional fabrics	19%
– Fashionable fabrics	14%
– Fiber	13%
– Yarn	11%
Home Textiles	9%
Industrial Textiles	8%
Ready to Wear & Sweater	6%
Trimmings & Related Products	5%
Textile Machinery / Sewing Equipment	5%
Accessories	3%
Nonwoven Textiles	3%
Inspection & Certification	3%
Others	1%

Visitors

Visitors	Number	Share%
Domestic	30,618	81%
Foreign	7,182	19%
Total	37,800	100%

Top Ten Visiting Countries

1. Taiwan	6. EU
2. China	7. South Korea
3. Hong Kong	8. Sri Lank
4. Japan	9. Vietnam
5. U.S.A.	10. Malaysia



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OCTOBER 7-9



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