

NonwovensAsia

Asia's Only Regional Bilingual Magazine for the Nonwovens Industry

亚洲非织造材料工业 ノンウオーブンス・アジア 부직포 아시아

不断进取 追求卓越



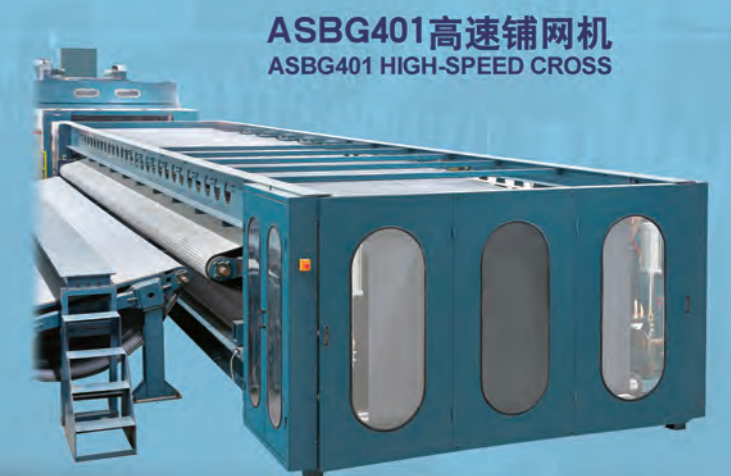
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Application: Needle Punching, spunlace, air through fabric



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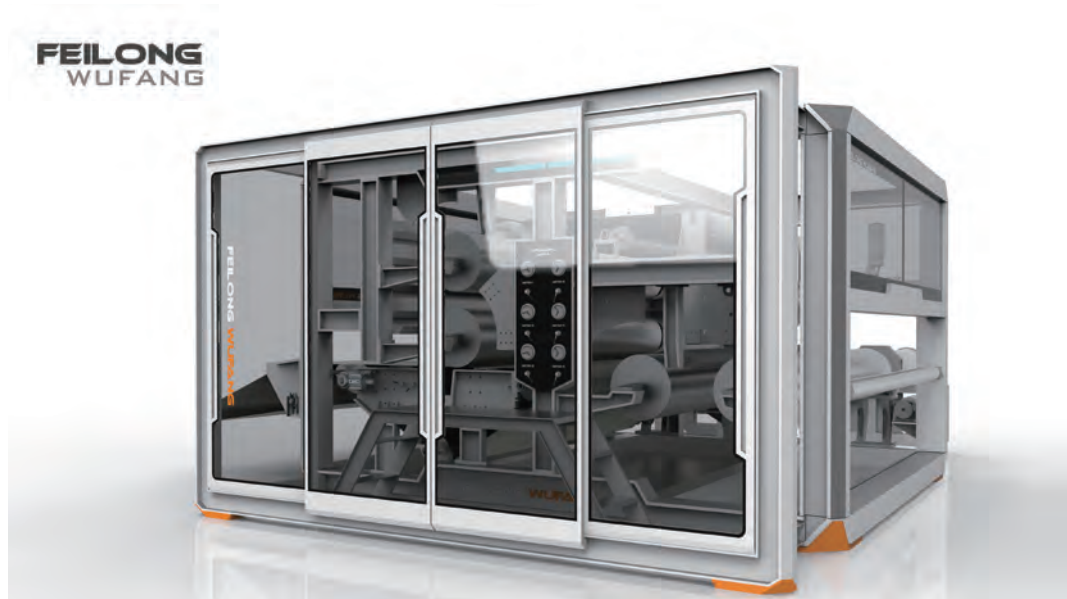
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机器宽幅：2.5-9M
Machine width: 2.5-9M
针刺结构：单针区、双针区、四针区
Needle structure: single board, double boards, four boards

针刺频率：1200n/min、1600n/min
Needling frequency: 1200n/min, 1600n/min

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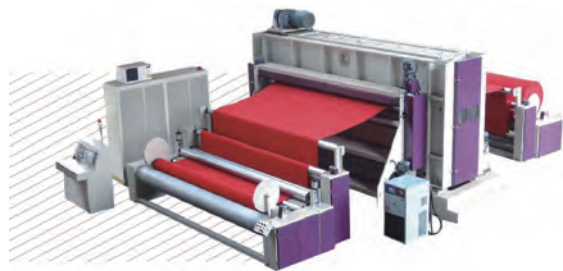
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工作幅宽 (Working Width): max10500mm
针刺频率 (Stroke Frequency): 1200 ~ 1600rpm/min
生产速度 (Production Speed): 2.5 ~ 15m/min
植针密度 (Needle Population): 2000 ~ 8000ns/m



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(Double Boards) High Frequency Velour Needle Punching Units

工作幅宽 (Working Width): 2500mm ~ 4500mm
针刺频率 (Stroke Frequency): 1200 ~ 1800rpm/min
生产速度 (Production Speed): 2 ~ 10m/min
植针密度 (Needle Population): 2 × (5000 ~ 8000)ns/m

超纤皮革基布自控针刺生产线 Microfiber Artificial Leather Base Needle Punching Production Line



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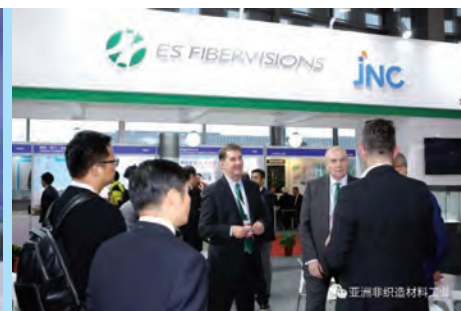
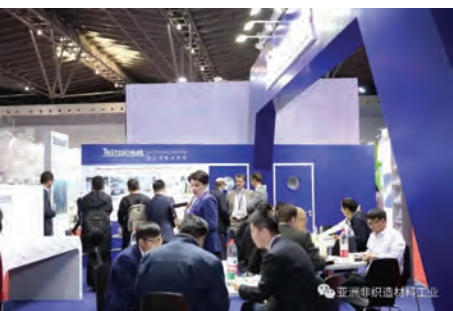
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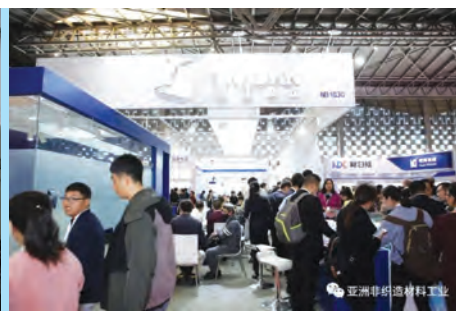
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Business News



The 17th Shanghai International Nonwovens Exhibition (SINCE) came to a successful end at the Shanghai World Expo Exhibition and Convention Center on November 10th, 2017 !

The three-day exhibition has brought together 461 exhibitors from 22 countries including China, the United States, South Korea, Japan, India, Singapore, the United Kingdom, Germany, France, Belgium, Italy, Switzerland, Turkey and Finland. 22,218 viewers from 62 countries and regions were attracted in total. These individuals came from more than 20 downstream application areas, including composite materials, healthcare, apparel, automotive decoration, filtration and separation, agricultural, household and industrial wipes, packaging materials etc.



More than 30,000 square meters of exhibition site brought together 461 domestic and foreign exhibitors, including Oerlikon, AUTEFA, REIFENHÄUSER, MOGUL, First Quality Nonwovens, Trützschler, Toray, Andritz, Dilo, Dalian Ruiguang, Hangzhou Nbond, Zhejiang Baoren, Asahi Kasei, Nanliu enterprise, JOFO, JNC, Xinlong holding, Lenzing, Sumitomo Seika Chemical, Unitika, Xiamen Yanjan, CHTC Jiahua, Fujian Nanfang, Nordson, Shaoxing Yaolong, Winner medical etc. Exhibits covered raw materials and accessories, nonwoven fabrics, production equipment, auxiliaries and accessories, nonwoven products and chemical raw materials.

In the meantime, concurrent events which held on November 8 and 9, including training courses, seminars on filtration and separation technology, exhibitor technology presentations, provided the latest information, technological developments and market conditions for the practitioners in China and the world of Nonwovens Industry. It can boost the further development of Chinese and global nonwovens industry.

Review of exhibition



Rich exhibits



Review of concurrent events



The successful holding of the 17th Shanghai International Nonwovens Exhibition owed to the support of exhibitors and audiences, who had been continuously participating in the exhibition for more than thirty years and newly joined. We will continue to work hard, innovate constantly and hold better exhibitions to give back to you with more perfect performance.

The 2017 "The Forum of Medical, Hygienic, Health Care and Wiping Nonwoven Products" came to a successful end !

The three-day 2017 "The Forum of Medical, Hygienic, Health Care and Wiping Nonwoven Products" ended in Guangzhou today!

6-8th, Dec.,. The forum was sponsored by China Nonwovens Technical Association (CNTA), China Nonwovens Scientific&Technical Information Center (CNIC), China Nonwovens Engineering Technology Research Center (CNETRC), and was co-organized by UBM China, Asia Nonwoven Fabrics Association (ANFA), European Disposables and Nonwovens Association (EDANA), Taiwan Nonwoven Fabrics Industry Association, Yangtze River Delta Nonwovens Industry Association, Guangdong Nonwovens Association, Foshan Nanhai District Medical Products Industry Association. It also received strong support and participation from Xinlong Holding(Group), Foshan Nanhai Beautiful, Nox Bellcow, Zhejiang Goldensea,

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ANFA president, Mr. Huang Qingshan

Guangzhou Hasen nonwoven, Guangdong Yizhou Advanced Materials technology and other companies.

More than 150 attendees attended the conference which brought together international and domestic enterprises and related organizations. The conference explored the sustainable development of medical care, healthcare, hygiene, personal care and clean nonwoven products from the perspectives of macro-market conditions, development directions and technological innovation.



ANFA Secretary General, Mr. Yuichi Komuro



EDANA General Manager, Mr. Pierre Wiertz



No empty seat



The participants listened carefully

More exciting moments



Wonderful brainstorming and active discussion

ANDRITZ Nonwoven highlights its cutting-edge technologies for the Asian markets at SINCE 2017

Graz, September 30, 2017. ANDRITZ Nonwoven, part of international technology Group ANDRITZ, will be presenting innovative nonwovens production solutions that target technologies for the Asian markets at SINCE 2017 in Shanghai, China (November 08-10).

ANDRITZ Nonwoven aXcess calender range – the key to spunbond applications neXcal twin aXcess, the latest development in the ANDRITZ aXcess calender range, originates from the reputed and proven technology of the neXcal twin. With a speed range of up to 600 m/min and a standard roll width of up to 3,800 mm, the neXcal twin aXcess is a spot-on solution for medium-capacity production lines. With one engraving roll in production and one in the stand-by position, the three-roll calender warrants significant flexibility in the medium-capacity nonwovens market. The neXcal compact two-roll calender completes the ANDRITZ aXcess calender portfolio.

Raising the bar for Chinese market standards: ANDRITZ neXline spunlace eXcelle with TT card and JetlaceEssentiel Chinese nonwovens manufacturers are increasingly requiring higher capacities and top-class quality for spunlace nonwoven products serving local and export markets. ANDRITZ Nonwoven has the right solution and offers neXline spunlace eXcelle with TT card web forming and JetlaceEssentiel hydroentanglement units for very high capacities. Several lines have been sold this year, the first line is scheduled to begin operations before the end of 2017. Cutting-edge Chinese nonwovens producers are clearly targeting this configuration.

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In addition, ANDRITZ Nonwoven offers a neXline spunlace eXcelle in crosslapped configuration, which is especially suited for technical products and disposable face masks.

ANDRITZ (China) Ltd., Wuxi branch – a supplier of complete lines and full service for the Asian nonwovens industry

As an all-round partner for the nonwovens industry, ANDRITZ (China) Wuxi branch covers sales, technology, manufacturing, operations, and service competences for nonwovens aXcess lines and individual machines. The ANDRITZ aXcess range focuses on producers with medium-capacity requirements, combining the advantages of proven technologies while providing reliable solutions in all nonwovens segments, such as hygiene, wipes, disposable face masks, automotive, filtration, and geotextiles.

ANDRITZ Wuxi is the local manufacturer of key components, such as cards, crosslappers, drafters, needlelooms, hydroentanglement units, and dryers, attending to local market demands. In addition, complete lines and individual machines are pre-assembled and inspected at this facility before delivery.

The ANDRITZ roll service center in Wuxi comprises state-of-the-art grinding equipment and a test stand for various kinds of rolls up to 1 m in diameter and 10 m in length. Here, ANDRITZ offers customers complete roll service, such as repairs and upgrades, in line with European quality standards for the Asian textile, nonwovens, and paper industries.

Furthermore, the ANDRITZ facility in Wuxi provides a top-notch needlepunch line on industrial scale, including card, crosslapper, pre-needler, and needleloom. The pilot line gives nonwovens producers the opportunity to conduct trials with newly developed or modified products under real production

conditions prior to market launch.

SAF™ at SINCE

Asia's largest nonwovens exhibition would get underway in November and Technical Absorbents would again have a presence at the event. SINCE would commence on 8th November at the Shanghai World Expo Exhibition & Convention Centre and the SAFTM (Super Absorbent Fibre) manufacturer would display a number of new products at the three day show.

Since it started in 1986, SINCE has become the most important nonwovens exhibition in the Asia region. This year it is expected to welcome over 450 exhibitors and 25,000 trade visitors, representing a wide range of industries from hygiene and filtration to apparel and home furnishings.

Technical Absorbents has been creating super absorbent solutions for numerous application areas since inception in the 1990's. As well as being the world's primary manufacturer of fibrous super absorbents, it has also positioned itself as a leading global innovator of super absorbent materials. It has its own needlefelt development line and also works with a large network of converters to create bespoke nonwoven fabric solutions to meet specific customer requirements. Its R&D team are also committed to bring to market new material solutions that not only meet market demand but also spark new concepts/ideas in the minds of industry players.

At SINCE, Technical Absorbents would be promoting a new washable nonwoven fabric technology that was launched at INDEX earlier in the year. The material, when used as a core within protective outer materials, can be laundered and dried with minimal absorbency loss. Such a fabric has been developed as a solution for different industry sectors including hygiene and apparel. There are also many other potential applications for the fabric that are yet to be explored.

The company has also added a range of lower basic weight fabrics to its portfolio, which have been developed with external converters. Ranging from 20-80gsm, the new fabrics are a fantastic addition for those customers searching for cost effective thinner fabrics that still offer high levels of



ANDRITZ Wuxi:
Service center with grinding machine



ANDRITZ Wuxi:
Technical center with neXline needlepunch aXcess

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absorbency.

“Asia is of huge geographic importance to us at Technical Absorbents,” explains Commercial Director Paul Rushton. “There is already a good understanding of SAF™ in the region and exhibitions like SINCE allow more effective and direct communication with interested parties, and so it is essential that we have a presence.

“Over the past few years, we have further developed our super absorbent product offering, and we are looking forward to some interesting discussions during the event.”

Toray South China Nonwoven Project officially set in Jiujiang

Recently, Toray Industries, Inc. has signed a letter of interest with People’s Government of Nanhai District, Foshan Municipality, deciding to set their south China nonwoven project in China Medical & Hygienic Nonwoven Fabric Product Demonstration Base (hereinafter referred to as “the base”) in Jiujiang Town, Nanhai District, which means that the base has clustered the world’s top, Asian top and Chinese top 10 nonwoven producers.

A giant member newly joins the base

In recent years, Jiujiang government has strongly focused on developing medical and hygienic nonwoven industry and established China Medical & Hygienic Nonwoven Fabric Product Demonstration Base. So far the base has attracted nonwoven manufacturing giants such as Berry, the world’s top one, Beautiful, the Chinese top 10 and other middle and downstream enterprises.

Now, another giant member newly joins the base. Toray Industries, Inc. plans to invest 200 million dollars to build spunbond nonwoven factory which is about 99.9 thousand m² in the base. That project is ready to introduce the PP spunbond nonwoven production equipment with 20 thousand ton annual output, which will create more than 1 billion yuan value of output annually and over 100 million yuan tax estimatedly.

Toray officials say, good investment environment, complete industrial facilities

and prosperous business environment are the reasons why they choose to invest their project in Jiujiang town. Toray Industries, Inc., founded in 1962, is famous around the world and has remarkable achievement in the field of global comprehensive chemistry with core technology of organic synthesis chemistry, polymer chemistry and biotechnology.

With the settlement of Toray south China nonwoven project, the base has established a three-level framework of medical and hygienic nonwoven enterprises by clustering the world’s top, Asian top and Chinese top 10 nonwoven producers, making Jiujiang stand in a leading position of high-end medical and hygienic nonwoven industry at home and abroad.

Strengthen two industrial carriers for investment promotion

Due to professional and precise measures of investment promotion, high quality projects are successively settled in Jiujiang. In the past few years, Jiujiang has set a strategy of “North for nonwoven industry, south for commerce and west for advanced equipment manufacturing”. By continuously strengthening two major industrial carriers, China Medical & Hygienic Nonwoven Fabric Product Demonstration Base and Port-surrounding International Industry Community, Jiujiang increases efforts on investment attraction for medical & hygienic nonwoven and its related industries and equipment manufacturing, speeding up industrial restructuring and upgrading.

With the settlement of Toray south China nonwoven project, Jiujiang improves high value-added and complete industry chain of the base. In the next two to three years, it is expected that the base will become a global medical & hygienic nonwoven aggregation with 20 billion yuan output value and Jiujiang town will be a well-known symbol of nonwoven industry.



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ANDRITZ and ShanTou Sanfai sign sales cooperation agreement for China

Graz, November 7, 2017. ANDRITZ (China) Ltd. Wuxi branch, part of international technology Group ANDRITZ, and ShanTou SanFai Nonwoven Machinery Factory Co. Ltd, a leading supplier of needlepunch machines in China, have signed an exclusive sales cooperation agreement to offer highly competitive products and comprehensive services to Chinese nonwovens producers with medium-capacity requirements.

The ANDRITZ aXcess range for web forming and Sanfai's needlelooms fit together perfectly for medium-capacity production, combining the advantages of proven technologies and providing reliable solutions in all nonwovens segments. For premium or high-production capacity requirements, ANDRITZ Nonwoven offers its range of eXcelle equipment (carding, crosslapping, and needlelooms), supplied from its manufacturing facilities based in Europe.

ANDRITZ (China) Ltd. Wuxi branch is an all-round partner for the nonwovens industry and offers technology, manufacturing, operations, and service competences for nonwovens aXcess lines and individual machines. It also offers key components, such as cards, crosslappers, drafters, hydroentanglement units, and dryers, for the local Chinese market.

ShanTou SanFai Nonwoven Machinery Factory Co. Ltd. is a leading nonwovens needlepunch machine supplier in China. The company can look back on 16 years of experience and has successfully manufactured 7.2 meter-wide needlelooms with high stroke frequency.

Both companies would be presenting their innovative production technologies for nonwovens at SINCE 2017 in Shanghai, China.

Brückner to show a wide range of applications

Machinery supplier shows many uses for technical textiles

Recent at Techtexil, German systems supplier and technology market leader Brückner will show a wide range of application examples

for technical textiles which can be finished on the tailor-made and resource-saving Brückner machines. A great number of special machines for very specific purposes show the competence of the creative Brückner team.

The Southwest of Germany is a center for technical textiles, which amount to about 50% of the textile production. The family-owned company Brückner, managed in the second generation by the owner Regina Brückner together with her husband Axel Pieper, is just in the right place in Leonberg in Swabia and Tittmoning in Bavaria. The proximity to textile research institutes such as e.g. the ITV in Denkendorf allows many joint projects and developments that are used in the special machines made by Brückner.

Manifold product examples at the booth invite to discussions with the Brückner experts. Models of a Supra-Flow BX double belt oven for nonwovens and of the innovative Etro bow-shaped dryer which is particularly suitable for the coating with PVC or adhesives show only two of the machines offered by Brückner for the finishing of nonwovens and foils.

In addition, Brückner offers very different application systems for the coating of technical textiles and one of them is the Eco-Coat minimum application unit. In the Technology Center in Leonberg the customers can develop their own innovations on different machines.

Also padders, drying, heat-setting and curing ovens with maximum production capacity and lowest possible energy consumptions and the highest precision in the temperature distribution and air circulation are part of Brückner's product range. Various cutting and winding machines to give a shape to technical textiles of any kind round the product portfolio.

Here are only some examples for the final applications processed the Brückner finishing lines: Woven glass fabric for circuit boards, carbon textile for textile-reinforced concrete, linings for walls and roofs in the field of automotive and aerospace, airbags, high-tech filters for the medical industry, hygiene articles, geo nonwovens for bank reinforcement.

(Source from: "www.nonwovens-industry.com")

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OFFICE SPACES™ TV SHOW TO FEATURE JOHNS MANVILLE ROOFING INNOVATIONS

JM State-of-the-Art Manufacturing to Have Starring Role

DENVER--(BUSINESS WIRE)--Johns Manville (JM), a global building products manufacturer and a Berkshire Hathaway company, will be featured in an episode of Office Spaces during its third season. Office Spaces reports on innovations in commercial construction and design spaces to explore cutting-edge products and technologies that impact the way we live, work and play. The segment featuring JM, titled "Meet the Innovators behind Johns Manville Commercial Roofing: Innovations for Efficiency & Longevity," would air July 9, 2017 at 5 p.m. ET on FOX Business Network.

Aside from its initial broadcast on FOX Business, the footage and reporting from JM manufacturing plants will be made available for syndication to more than 100 stations across the country.

"Johns Manville started as a roofing company nearly 160 years ago and has a long history of innovation," said Joe Smith, senior vice president and general manager of JM Roofing Systems. "We look forward to highlighting our products and the people who make them on Office Spaces. This is a great opportunity to tell our story and to showcase why Johns Manville is a leader in the markets we serve." (Source from: "<http://jm.com>")

Filtration specialist Mann + Hummel acquires Jack Filter Lufttechnik and Jack Filter Hungaria

The MANN+HUMMEL Group, based in Ludwigsburg, Germany, has signed a binding agreement to acquire the companies Jack Filter Lufttechnik and Jack Filter Hungaria. With the acquisition of Jack Filter, MANN+HUMMEL is expanding its product range primarily in the area of HEPA filters (HEPA = High Efficiency Particulate Air filter). No information about the purchase price has been released by either company.

MANN+HUMMEL is a globally operating, family-led company providing filtration

solutions for automotive and industrial applications, clean air for interiors and the sustainable use of water. The product portfolio of Jack Filter, a family-led company founded in 1947, further expands the extensive MANN+HUMMEL offerings. The managing partner of Jack Filter, Alexander Gaggl, is taking on a management role in the global Intelligent Air Solutions business area at MANN+HUMMEL. The acquired companies specialize in the production and sales of air filters for ventilation, air conditioning and cleanroom technology. The companies have sales of some 10 million euros and currently employ around 100 people.

(Source from: "www.nonwovens.com")

AstenJohnson buys Foss Manufacturing's New Hampshire needlepunch operations

AstenJohnson Holdings, Ltd., is buying Foss Manufacturing's needlepunch plant in Hampton, New Hampshire, the Charleston, South Carolina-based acquirer announced recently. According to RISI's Nonwovens Company Profiles, AstenJohnson gets a facility with at least a dozen needlepunch lines serving a variety of end-use areas including automotive, marine, recreational vehicles, wall coverings, display applications and crafts.

Foss will retain its Georgia needlepunch operations, which have been a recent growth focus for the company, focusing mainly in flooring-related products.

(Source from: "www.nonwovens.com")

New investment will lead to production of pre-impregnated, glass-mat thermoplastic composites

Carver Non-Woven Technologies - a supplier of innovative and high-quality, single- and multi-layer/material nonwoven products - will shortly begin commercial production of pre-impregnated, preconsolidated glass-mat thermoplastic (GMT) - type composite products using its versatile nonwoven mat technology. The company is finishing installation of a new double-belt laminator/press from Sandvik TPS Composite Solutions division of Sandvik AB (Sandviken, Sweden) at its production facilities here. The new equipment would begin commercial

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production in mid-August and would enable Carver to supply preconsolidated continuous roll goods and precut sheets to the half of its customer base using infrared (IR) heaters prior to molding non-wovens with thermoplastic matrices into three-dimensional (3D) shapes.

Double-belt laminators are widely used to produce prepregs and unidirectional tapes with fiberglass or carbon fiber reinforcement. Such equipment also is used to consolidate glass fiber and carbon fiber mats, webs, or cross-ply reinforcements (including fabrics and nonwovens using commingled polymer-based fibers) with thermoplastic or thermoset matrices.

When older IR ovens are used with traditional nonwovens, fibers are exposed to heat throughout the thickness of the web (not just on top and bottom surfaces) and for a longer duration than typically is seen with contact heating, the preferred method. This can prove problematic for unconsolidated non-wovens - especially thermally sensitive formulations containing natural fibers (which can burn/carbonize) or thermoplastic fibers like polypropylene (which can shrink, sag, or even melt) during the preheating cycle. In cases where molders cannot justify the capital expense of installing contact heating systems, changing to pre-impregnated and preconsolidated non-wovens provides several benefits. First, thermoplastic fibers experience less shrinkage, so molders need not buy as wide a roll or sheet of product, thereby saving money. Second, the preconsolidated products heat faster, which reduces both time and energy requirements during preheating and molding while reducing risk of damage to the materials.

(Source from: "www.convertingguide.com")



Introducing the Avgol Lux family

Suitable for baby diapers, adult incontinence and feminine hygiene products, the Avgol Lux family of non woven fabrics has been designed to provide hygiene products' manufacturers with a new visually distinct soft touch fabric solution.

Suitable for top sheet, back sheet and leg cuff applications, as well as ear and landing zone substrates, the Avgol Lux family of fabrics meets the needs of the latest hygiene product design trends around the world.

In development for a number of years, significant research and development investment has been made in the Lux range across a number of product performance parameters, optimising the softness and mechanical properties. The range has achieved great market feedback and was launched in Asia in recent months.

Today the products in the Lux family are all visually distinct and create a soft perception with bulk for the consumer and are differentiated by their touch performance:

- Avgol SB & SMS Lux – Soft touch
- Avsilk SB & SMS Lux – Silky smooth softness
- Avsoft & Avspun SB & SMS Lux – Cotton softness

For more information on the Avgol Lux Family of soft non-woven fabric solutions, please contact info@avgol.com (Source from: "www.avgol.com")

Closing the wet-wipe stickiness gap: New adhesive range from Avery Dennison

OEGSTGEEST, the Netherlands — October 18, 2017 — Wet wipes are one of the most popular cleaning products in the world. But until now, the adhesives on wet wipe packages would often fail, leaving the remaining wipes to dry out, and customers to lose the value of their purchases.

"When an adhesive selected for household wipes can't supply the technical resistance to the solvents (e.g. limonene) used in the wipes, the pack cannot be resealed for the lifetime of the packaging. This means customers cannot properly use the full pack of wipes, leading to disappointment with the purchase, and perhaps encouraging them to change to other brands in the future," said Jenny Wassenaar, director Select Solutions at Avery Dennison Europe.

Avery Dennison creates a step change with its High Solvent Resistance Adhesives, MR980R and UVR155, from the Select Solutions™ portfolio. These adhesives address the main problem with wet-wipe closures: the vulnerability of the adhesive closure to the solvents in the wet wipes themselves.

MR980R provides excellent functionality

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on glossy PET-packaging. It is designed to withstand the chemicals used in household wet wipes, and provides a high strength of adhesion on flexible packaging.

UVR155 is the preferred choice for matte packaging, often used in baby, facial and toilet wipes. Both adhesives have been developed specifically for challenging wipe applications (like household wipes), offering high to medium initial tack and a smooth peel.

Consumers who buy wet-wipes are mainly focused on easy-open/easy-close convenience. For manufacturers and brand owners, the priority is finding cost-efficient alternatives to rigid plastic lids and other reclosure solutions.

Household wipes are growing rapidly and are now increasingly used in many different home and personal care applications. Avery Dennison's range of adhesives ensures the required performance across a broad range of baby, cosmetic, toilet and domestic applications. Our adhesives can even handle contact with challenging solvents, oils and chemicals.

For more information about this High Solvent Resistance Adhesives, visit label.averydennison.eu.
(Source from: "www.averydennison.com")

Zhejiang Huajiang orders 2 Dilo lines

Zhejiang Huajiang Science and Technology Development Co. Ltd., China, has ordered two more Dilo needlepunch lines thus consolidating the strong partnership between Zhejiang Huajiang and Dilo. The lines include opening and blending equipment from DiloTemafa, card feeding and cards from DiloSpinnbau as well as crosslappers and needllelooms from DiloMachines.

Zhejiang Huajiang is one of the biggest suppliers of GMT (glass-mat reinforced thermoplastic) products in China. The customer already operates three Dilo lines and increases its production capacity for formed parts made from glass fibre and polypropylene for automotive applications.
(Source from: "www.dilo.de")

Foss Floors orders Dilo line

Dilo has received an order from Foss Floors, with headquarters in Rome (GA) - USA, to supply a complete DILO needlepunch line. This order demonstrates once more the strong partnership between Foss and Dilo.

The line is suitable for the production of floor covering felts, and includes a state of the art DiloTemafa opening and blending line, DiloSpinnbau carding machine 3 meter wide, DiloMachines crosslapper DLBS 30/50 with CV1 system, two needllelooms DI-LOOM series together with an integrated process control system DILO-PCS.

Foss Floors operates several other DILO production lines including high speed patterning DI-LOOP units and is a well-known leader and pioneer in nonwoven needlepunch floor coverings and specialty flooring products.
(Source from: "www.dilo.de")

PEGAS NONWOVENS has signed a Memorandum of Understanding for the delivery of a semi-commercial production line for the plant in Znojmo

LUXEMBOURG/ZNOJMO (28 September 2017) – PEGAS NONWOVENS SA (hereinafter "PEGAS" or "Company") announces that it has signed a Memorandum of Understanding with the supplier of production technology Reifenhäuser Reicofil GmbH & Co. KG, the subject of which is the delivery of a semi-commercial production line RF5 Bico FHL R&D 2F for the plant in Znojmo - Přímětice in the Czech Republic.

The annual production capacity of the line will depend on the used input raw materials and the produced products and will be in the range from 8 to 15 thousand tonnes. The final contract for the delivery of the production line is expected to be concluded by the end of 2017. The production line should be put into commercial operation during the third quarter of 2019.

"By signing this memorandum, we have reached an important milestone of the project that we have worked on intensively with Reicofil for the last two years with

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the objective of developing a new type of technology. This new technology is based on the Reicofil 5 platform and the "no-basement" concept. It utilises proven bicomponent technologies, offers a wide range of fibre types and fibre profiles, whilst enabling the use of input raw materials different to those that we currently process. A significant element of this technology is also the nonwoven textile bonding system, which is an alternative to the presently used conventional systems.

Due to its development potential, I consider this semi-commercial technology to be the fundamental building block for our newly built global innovation centre. I place great expectations into this innovation centre and believe that it will help us to achieve significant successes in research, testing and subsequent commercialisation of new products with applications for current as well as new markets," said František Řezáč, CEO and Member of the Board of PEGAS NONWOVENS SA.

(Source from: "www.pegas.cz")

Thrace-LINQ expanding Dorchester County operations

Thrace-LINQ, a global supplier of fabrics for the textile industry, is expanding its Dorchester County operations with an investment of \$ nine million which is expected to create at least 10 new jobs. Thrace-LINQ manufactures nonwoven fabrics used in a variety of textile applications, including geosynthetics, automotive, construction and floor covering.

With its North American headquarters, manufacturing and distribution centre in Summerville, Thrace-LINQ is a member of the Thrace Group of Athens, Greece. Thrace-LINQ will begin the installation of a state-of-the-art production line in early 2018. Hiring for the new positions should begin in the second quarter of 2018.

"This new production line is one of a series of planned investments for our growing company here in South Carolina. The Thrace Group continues to invest in people and technology, and we are excited about the future of Thrace-LINQ," Thrace Group COO and Thrace-LINQ chairman of the Board George Braimis, said.

"The people of Thrace-LINQ have worked hard to make this investment become a reality. We look forward to this important milestone in our strategic plan with great anticipation," Thrace-LINQ general manager Brian Sparks, said.

"Our workforce has shown that it's the best in the world, and announcements like this one continue to boost South Carolina's reputation on the global stage as a state that can get any job done. We've worked hard to create a competitive, pro-business environment, and our efforts continue to pay off," Governor Henry McMaster said.

"South Carolina is proudly leading the manufacturing renaissance, and Thrace-LINQ's expansion is yet another win for the thriving manufacturing industry in our state. This new investment strengthens the reputation that the Palmetto State and its highly-skilled workers have earned for making quality products," secretary of commerce Bobby Hitt added. (SV)

(Source from: "www.fibre2fashion.com")

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Local authorities in Amsterdam are subsidizing the recycling operation, hoping to ease the diaper industry's strain on the environment. Much waste, including diapers, is incinerated in The Netherlands but recycling is a better option because it lessens greenhouse gas emissions and gives a new life to the recycled materials.

Geert Cuerus, senior advisor waste and materials, Rijkswaterstaat Environment, a part of the Dutch Ministry for Infrastructure, also spoke at Outlook, noting that recycling is the only way to truly close the loop in the diaper supply chain. "When you use a raw material you need to recover and replace that material at the same level so incineration has no place in this economy. That is the end of a life for some raw materials," he said.

P&G's recycling efforts in Europe are in part being funded by the Embraced consortium, an EU-funded group that contains 13 partners to promote absorbent products recycling and find ways to turn them into higher value materials like fertilizers and bioplastics. Embraced recently received funding from Bio Based Industries Joint Undertaking, a public-private partnership.

(Source from: "www.nonwovens-industry.com")

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Nobel Hygiene to expand in North India

Adult diaper maker plans facilities in North India as well as outside the country

Nobel Hygiene Pvt Ltd., among the first players in adult diapers in India and the market leader in this segment (with 65% market share according to Euromonitor Singapore) is planning to expand its capacity by setting up a new manufacturing facility in North India to cater to the growing demand for adult and baby diapers in the country, a top company official said.

"We have seen the demand for adult diapers growing from zero in 2000 to approximately 10 crore pieces in 2016," said Kamal Kumar Johari, managing director, Nobel Hygiene. "Besides, the baby diapers market is growing at 25-30% a year. So, we are planning to set up a new factory in North India, either in NCR Delhi or in Uttar Pradesh this year," he said.

He said the company would invest \$25 crore in the new manufacturing unit. Nobel Hygiene already operates a factory in Nashik in Maharashtra where it has put up six manufacturing lines with fully-automated machines. The unit manufactures adult and baby diapers, underpads and baby diaper pants.

Mr. Johari said that the company was also planning to set up a manufacturing base outside India. However, he did not disclose the location. "We may start very soon," Mr. Johari said.

Globally, the disposable hygiene market is estimated at \$50 billion and this includes diapers and sanitary napkins according to industry officials. In India, this market is estimated at \$6,000 crore.

The Indian market is dominated by three MNCs: Procter & Gamble, Kimberly-Clark and Unicharm of Japan, that manufacture and sell their brands Pampers, Huggies and MamyPoko respectively. Nobel Hygiene has two brands: Friends for adult diapers and Teddy for baby diapers.

Mr. Johari said his company had been growing at 30-40% for the last seven years as compared with the average industry growth

of 20-25%. "We are the only company in India which manufactures all types of diapers and underpads. Besides, we have designed diapers as per the Indian body structure and thus our diapers do not leak," he said.

The adult diapers market is estimated at \$350 crore at MRP level while the baby segment is worth more than \$5,500 crore.

"The penetration level of diapers in India is 6% as against 35% in China. This leaves vast scope for growth," Mr. Johari said.

He said the company is targeting to manufacture 20 lakh pieces of diapers per day by 2019 as compared to 10 to 12 lakh pieces currently. The company exports to Middle East, Africa, Central Europe and USA.

Private equity investors CLSA and Access Investment have invested in the company.

The adult diapers market is growing by 18 to 25% in the cities while in the rural areas the growth in the range of 2 to 10%.

The awareness on adult diapers is growing and families are now willing to spend \$6000 on diapers per month due to enhanced comforts they provide to the elderly and the sick. The diapers have given the elderly the freedom to move around and the respect they deserve at a stage when they lose all control to promptly respond to nature's call. (Source from: www.thehindu.com)

Hartmann USA reformulates adult wipes

MoliCare Skin wipes are now Formaldehyde - donor free

Hartmann, a provider of services and products that support the daily needs of long-term care residents and professional caregivers, has updated its pre-moistened adult washcloth formula to complement its extensive portfolio of skin-friendly incontinence products. The new MoliCare Skin wipes are now Formaldehyde-donor free, Paraben-free, hypoallergenic, enriched with soothing aloe vera and lanoline and help maintain pH values between 4.5 and 6.5 for optimal skin health.

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"Hartmann is at the forefront of the development of skin-friendly Incontinence products. With that in mind, the reformulation makes our wipes a perfect companion to the Dignity and MoliCare lines," says Mark Lacerte, president & managing director for Hartmann USA.

The new MoliCare Skin wipes are now available and have already begun replacing the existing Compose wipes within distribution chains across the country. (Source from: "www.nonwovens-industry.com")

Consumer wipes market in U.S. to grow 2.5% per year

Majority of wipes sold last year were personal care wipes

Consumer wipes markets accounted for 56% of overall wipes sales in 2016. Demand for consumer wipes is expected to increase 2.5% per year to \$1.9 billion in 2021. More than 80% of consumer wipes sales in 2016 were for personal care wipes, with baby wipes accounting for the majority of personal care wipes sales. However, given the maturity of the baby wipes market, the fastest growth among consumer wipes will be tied to sales of household care and other consumer wipes. These and other trends are presented in Wipes Market in the US, 8th Edition, a new study from The Freedonia Group, a Cleveland-based industry research firm.

In household care wipes, 32% of sales are tied to dry wipes, primarily due to the floor care segment. In this application, wipes are often used to lift away light soils such as dust and small amounts of dirt without the help of a solvent or surfactant. This is often due to an electrostatic charge that can attract and hold dust and other small particles.

There are significant differences in the market shares of the several segments of the personal care wipes market, depending on whether market share is measured in value or in volume terms. By volume, baby wipes accounted for about 82% of personal care wipes in 2016, while in value terms they accounted for only 67% of the segment. (Source from: "www.nonwovens-industry.com")

New report studies global diaper market

Market expected to reach \$79.94 billion by 2021

According to the latest market study released by Technavio, the global diaper market is expected to reach \$79.94 billion by 2021, growing at a CAGR of almost 6%.

This research report titled 'Global Diaper Market 2017-2021' provides an in-depth analysis of the market in terms of revenue and emerging market trends. This market research report also includes up to date analysis and forecasts for various market segments and all geographical regions.

Developed countries hold a large share in the diaper market. However, due to increasing disposable income, the developing countries are likely to experience a considerable growth in the coming years. Disposable diapers will account for a considerable market share during the forecast period.

Technavio's consumer and retail research analysts categorize the global diaper market into the following segments by product. They are:

- Baby disposable diaper
- Baby training diaper
- Baby cloth diaper
- Baby swim pant
- Baby biodegradable diaper
- Adult pad type diaper
- Adult flat type diaper
- Adult pant type diaper

The top three product segments for the global diaper market are:

Baby disposable diaper

The disposable diaper segment is the most widely used category in the market due to its ease of usage and hygienic characteristics. Factors such as a rise in dual-income households and increase in awareness of hygiene maintenance for babies influence several consumers to opt for disposable diapers. These diapers are available in different varieties: super absorbent, ultra-absorbent, and eco-friendly diapers.

According to Sharan Raj, a lead retail goods and services research analyst from Technavio, "The demand for eco-friendly and high-absorbent diapers is on the rise due to increasing number of consumers looking for diapers that help keep the baby dry and free from rashes. Some of the eco-friendly

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disposable diapers include Bambo Nature, Nature Babycare, Broody Chick, Attitude, and Poof Diapers."

Baby training diaper

Training diapers or training pants are mainly used in aiding toilet training among kids. These diapers are designed like normal underwear to increase independence among babies. Some of the major features include flexible sides, leak guards, and wetness indicators. These diapers are becoming increasingly popular and are being used extensively to help children switch from diapers to toilets. Some of the popular training diapers include Huggies Pull-Ups, Pampers Easy Ups, The Honest Company Training Pants, and Potty Scotty 2-in-1 Waterproof Training Pants.

Baby cloth diaper

A cloth diaper is a reusable diaper made from man-made materials, natural fibers, or a combination of both. These diapers are usually made from industrial cotton. Other natural fibers are wool, bamboo, and unbleached hemp. Man-made materials include polyurethane laminate and polyester fabrics.

"Flat cloth diapers are low-priced, reusable, and eco-friendly. They are safe for baby's skin as they do not contain chemical ingredients. They are popular in most developing countries due to the low cost of these products. Also, they are available in a wide range of designs and colors, which aids in increasing their adoption," says Sharan.

(Source from: [www."nonwovens-industry.com"](http://www.nonwovens-industry.com))

New Durable Hydrophilic Ingeo Nonwovens Technology for Absorbent Hygiene Products Offers Fluid Management Superior to Polypropylene

THE NEW HYDROPHILIC SYSTEM FOR NONWOVENS COMBINES INCEO'S UNIQUE CHEMISTRY WITH TAILORED TOPICAL TREATMENTS TO IMPROVE FLUID MANAGEMENT, DURABILITY, AND BREATHABILITY.

MINNETONKA, Minn., October 5, 2017 – NatureWorks announces the development of a durable hydrophilic formulation that can

promote skin health through improved fluid management and increased breathability for absorbent hygiene applications such as diapers, adult incontinence, and feminine hygiene products. In diapers, the combination of custom surface treatments with Ingeo-based nonwoven fabric for the topsheet can reduce the use of super absorbent polymer (SAP) or pulp by up to 30 percent for thinner, more comfortable, and cost-effective products.

"This innovative technology for Ingeo nonwovens delivers higher performance than polypropylene in fluid management metrics that are key to delivering superior skin health," said Aman Kulshrestha, Ph.D., Principal Scientist, NatureWorks. "The versatility of the new system gives manufacturers the ability to create new structures and differentiate their products."

Kulshrestha summarized the benefits of the new durable hydrophilic system for Ingeo nonwovens:

- Surface energy can be tailored via the topical treatments designed specifically for Ingeo nonwovens, enhancing fluid management with improved strike-through, re-wet, and run-off metrics
- Improved permanence / durability reduces the amount of topical treatment needed for nonwovens and reduces wash-off
 - In diapers, using this Ingeo nonwovens system for the topsheet can increase the efficacy of the absorbent core, enabling a reduction in SAP or pulp by up to 30 percent
- Reduced aging maintains fluid management performance and increases shelf life of hygiene products
- Improved breathability due to Ingeo's higher water vapor transmission rate
- Easy to manufacture via spunbond, meltblown, or staple fiber processes
- Biobased material with lower carbon footprint

Key performance improvements over polypropylene

With this durable hydrophilic technology, Ingeo nonwovens surpass polypropylene in key measures of fluid management. The passage of fluid through the new Ingeo nonwoven system is faster and more sustained as measured by both strike-through and run-off. These nonwovens resist re-wet two times better than polypropylene.

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Significantly less surface finish is needed on the fabric compared to polypropylene, which decreases the potential for skin irritation. Durability in the new formulation is also higher compared to polypropylene as less surface finish is washed off and surface tension remains high.

(Source from: "www.natureworksllc.com")

P&G to increase diaper recycling efforts

Recycling project expanding to Amsterdam next year

Procter & Gamble is moving ahead with a diaper recycling operation in Amsterdam, The Netherlands. The company has partnered with AEB Amsterdam to launch a diaper recycling program, similar to one already underway in Italy through P&G subsidiary Fater. The operation should be fully operational sometime next year, giving new life to about 10,000 tons of disposable diaper material each year.

According to Ioannis Hatzopoulos, who manages global baby care sustainability communications at P&G, interest in recyclability is high in the Netherlands for several reasons. There is limited landfill space; high level ground water increases risk of contamination; and there are limited natural resources. The goal of the recycling project is to find new life for the materials sourced from recycled diapers while limiting the industry's toll on landfill space and the environment in general.

Hatzopoulos discussed P&G's latest recycling efforts during the Resource Management session of Outlook, EDANA's personal care products conference in Cascais, Portugal recently.

Hatzopoulos says that increasing the recyclability of its diapers is part of P&G's four point sustainability vision which includes powering its plants solely through renewable power, using 100% recycled materials, conserving resources and contributing to zero landfill waste. The limited life span of the environment has been a source of negativity since these products first became available several decades ago.

"The percentage that diapers contribute

to household waste is growing - it's now between 5-10% - and it's a very visible part of household waste that is not recycled," he adds. "Our customers have been plaguing us to do something about disposable products."

P&G has been involved in diaper recycling in Italy since 2015 through Fater, its joint venture company with Gruppo Angelini. In August, Fater replaced its pilot scale recycling operation with an industrial scale operation. Like the one planned for Amsterdam, the new operation can recycle 10,000 tons of absorbent hygiene products per year, affecting roughly one million people.

According to Hatzopoulos, the recycling process removes human waste from the product and then separates the diaper material into three waste streams—supersorbent materials, mixed plastics and pulp. These materials then find life in new applications and create a new revenue stream for the company. >>> next 11

Three Auto Suppliers Form JV

Autoneum, Nittoku (Nihon Tokushu Toryo) and Toyota Boshoku will study vehicle acoustics

Autoneum and the Japanese automobile suppliers Nittoku (Nihon Tokushu Toryo) and Toyota Boshoku have agreed on the establishment of a joint venture for research and development in vehicle acoustics and signed a corresponding agreement. The collaboration, which is subject to approval by regulatory authorities, is expected to begin in January 2018. By means of the joint venture acoustic studies for Toyota Motor Corporation and other automotive related companies will be conducted in Japan under the scientific lead of Autoneum. In future, customers will benefit from the expertise of the Swiss innovation leader and its Japanese partners both in the predevelopment of vehicle models with NV benchmarking (noise, vibration) and subsequently in the vehicle development with the computer-aided design of customized acoustics systems. In order to guarantee the highest standards, measurement systems and simulation software developed by Autoneum will be deployed at the acoustic center located at Toyota Boshoku in Japan.

For more than 50 years, Autoneum and Nittoku have cooperated successfully in the global supply of Japanese OEMs with

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innovative and lightweight components for acoustic and thermal management. Together they operate seven joint ventures worldwide. The future acoustics development for Toyota together with Toyota Boshoku, a leading producer of interior systems, will serve to further expand the collaboration of the three automobile suppliers in the field of vehicle interior systems that has been in place since 2012.

(Source from: "www.nonwovens-industry.com")

Ahlstrom introduces soft SMS fabric for surgical gowns

TenderGuard nonwovens offer balance between safety, softness and comfort

Ahlstrom has introduced Ahlstrom TenderGuard, a new soft SMS (spunbond-meltblown-spunbond) fabric for surgical gowns.

Ahlstrom's TenderGuard offers the optimal balance between safety, softness and comfort. This versatile soft SMS fabric is designed with comfort in mind. Drapeable, pleasant to the touch and lightweight are just a few benefits of this fabric. Our commitment to safety and comfort allow surgeons, nurses and clinicians to feel at ease, allowing them to focus on what's important during an operation.

Ahlstrom TenderGuard is a high performance, cost-effective fabric for medical apparel, offering the same protection as regular treated SMS but with added comfort. It's softness and comfort is comparable to spunlace nonwovens but with the added benefits of lower basis weights and better protection, according to the company.

(Source from: "www.nonwovens-industry.com")

Flushability - The fight continues

As the wastewater industry releases its own version of standards, wipes manufacturers continue to focus on education to keep

The wipes industry continues to wage its battle in defense of flushable wipes. More than a decade after industry stakeholders began formally addressing negative attention surrounding wipes that are designed to be flushed, it continues to grapple with things like false claims and negative press saying that flushable wipes have caused millions of dollars in damage to sewer systems around the world.

"The battle is being waged on four fronts—legislation, regulation, litigation and publicity," says INDA president Dave Rousse. "We have seen some wins in all of these areas but we continue to face challenges."

The wipes industry continues to make strides fighting legislative battles. The Federal Trade Commission has closed two inquiries related to the advertising of flushable wipes without finding or alleging that any product currently on the market has violated any performance claim.

From a regulations standpoint, the wipes industry continues to work with Washington, D.C., in finalizing the language and rulemaking surrounding a bill, passed last year, requiring that wipes pass certain standards before they can be advertised as flushable. At the same time, a similar measure up for debate before the New York City Council seems to have been deprioritized after its sponsors saw an updated Code of Practice on labeling requirements developed by the industry.

In litigation terms, the flushable wipes industry scored a win in August when a judge in Iowa announced the settlement of a class action lawsuit brought by the City of Perry, IA, in which Perry alleged damages from flushable wipes manufactured by a number of flushable wipes producers. In dropping its lawsuit, Perry admitted that since the inception of its lawsuit, filed in 2015, it had not experienced any clogs or increased maintenance costs attributable to flushable wipes. Perry also admitted that none of its personnel were able to identify any flushable wipes manufactured by select companies in the city's plumbing or wastewater systems. Notably, Perry agreed to drop its lawsuit without receiving any compensation for any alleged damages.

In 2016, two of the defendants in the Perry case were able to resolve another flushable wipes class action lawsuit in Florida (Sweeney v. Kimberly-Clark, et al.), where the consumer Plaintiffs also agreed to drop the class action lawsuit without any compensation for alleged damages.

"The settlement terms of the Perry litigation corroborate what years of testing and field collection studies have shown: that flushable

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wipes are not causing municipal clogs or increased maintenance," Rouse says. "To date, despite sensational headlines, there is no evidence from any wastewater agency proving that flushable wipes are causing clogs or maintenance issues."

Recent studies point to similar findings. A recent independently conducted collection study in New York City found that more than 98% of the items examined were not labeled or designed to be flushed, including baby wipes, surface cleaning wipes, paper towels, as well as additional trash items. Other collection studies conducted in Maine and California have yielded similar results.

Amidst these wins, publicity may be the biggest challenge facing flushable wipes as negative articles, falsely blaming the products for clogging sewers, continue to pop up in both local and national media outlets. "We do our Google search every week and the articles keep popping up," Rouse adds.

Another challenge appeared this summer with the formation of the International Waste Services Flushability Group (IWSFG), an organization comprised of stakeholders in the wastewater services industry, which is dedicated to the inappropriate disposal of consumer products down the toilet. This organization has proposed its own standards, which are based on three main criteria: The wipes must break into small pieces quickly; not be buoyant and not contain plastic or regenerated cellulose but only contain materials which will readily degrade in a range of natural environments.

IWSFG released these draft standards on July 24 for public comments until September 1. The final standard will be finalized in late September.

Rouse calls these standards overkill. "The framework is okay but the pass/fail criteria is way out of line," he says, adding that the short comments window was particularly unfair to European stakeholders who vacation for much of August.

"We think they want to use these guidelines as a template for legislation including what is currently underway in Washington, D.C."

The formation of this organization is another battle in the war the wastewater industry has waged against flushable wipes. For a while, it looked as if a truce was underway when wastewater executives agreed to team up with INDA and wipes manufacturers in the development of the fourth edition of their flushability guidelines (GD4), but that relationship deteriorated in January 2017 when the wastewater industry exited the conversations. The wastewater industry wrote to INDA saying they were ending these efforts because no meaningful progress had been made since May 2016.

According to INDA, the wastewater community was insisting on testing requirements that were far more rigorous than necessary.

"If industry were to accept the pass/fail criteria that wastewater industry stood beside, every flushable wipe on the market today would not pass those standards," says INDA technical affairs director Jim Loftus. "That implies that every flushable wipe is incompatible with the wastewater systems. This is not something that industry can agree with."

However, the collaboration did yield an updated code of practices that will update labeling requirements for non-flushable wipes. "We have successfully developed, in conjunction with the four major wastewater associations, a new code of practice that takes care of the labeling of 93% of wipes sold - the other 7% are the percentage of wipes sold that are designed to be flushable," Rouse says.

"This demonstrates the progress that can be made when both sides take a rational and reasonable approach to change."

Without the wastewater industry, the finalization of GD4 has stalled but INDA and its allies continue to work on its passage, "We still believe that today's material science has advanced significantly since 2013 when the last round of guidelines were developed and we would like to change our protocols to reflect that," Rouse says. "Right now we are figuring out how."

Once the guidelines are finalized, Rouse

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hopes the industry can move on to focusing on an awareness program that toilets are not trash cans (TANT)," Rouse adds. "Alas the world is not perfect and we are dealing with an angry wastewater sector that is not willing to acknowledge scientific data," he says.

He adds the main problem between the nonwovens industry and wastewater agencies was failure to come to an agreement on the definition of the problem. For nonwovens, the problem is the improper flushing of non-flushable materials - like baby wipes, feminine hygiene products and non-flushable paper - whereas the wastewater groups see the improper flushing of incompatible flushable wipes as well as consumer confusion caused by the very existence of flushable products as the problem.

"The wastewater industry is still angry about the guidelines," he says. "They say they had no input in them when in fact distinguished wastewater leaders reviewed GD1 and GD2 and made suggestions for improvements which led to GD3."

For now, the industry remains stuck at GD3, which Rouse describes as scientifically sound. "There is no evidence that a GD3 compliant wipe has caused damage, but GD3 no longer represents the minimum performance properties of today's flushable wipes. We can go beyond GD3, but we have not updated the guidelines to reflect the advancements our industry has made in material science."

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Hot topics

INDA's flushability task force continues to operate through multiple committees dedicated fighting litigation, legislation and the almost

Market Trends

daily media assault that is blaming flushable wipes for sewage problems throughout the U.S. and the world when in fact the role of flushable wipes in sewage clogs is decreasing (down from 7% to 2% since 2010 according to analyses) even though sales volumes of these materials are increasing.

"This does potentially show a trend, the number of flushable wipes has gone up and baby wipes stayed the same yet you see more baby wipes and less flushable wipes (in clogs)...so what is the problem," Loftus says.

Central to INDA's efforts will be consumer education, to help reduce the number of non-flushable items - like baby wipes - that are going down the toilet. The updated code of practices includes new labeling requirements that not only feature the do not flush logo more prominently on the outer packaging of the wipe, but also requires the same logo be used at the point of use. Also, no baby wipe - regardless of its ability to disperse - can be marketed and labeled as being flushable to hopefully reduce consumer confusion about what can go in the toilet.

In fact, INDA admits the improper flushing of baby wipes is a growing problem. A recent analysis of clogs in the New York City subway showed that 38% of the material was non-flushable baby wipes, up from an analysis taken seven years ago.

"Too many people are flushing baby wipes and the assault on flushable wipes is not going to fix this problem," says Richard Palmer, president of Nehemiah Manufacturing and a representative of the flushability communications committee. In fact, limiting the consumer's supply of flushable materials will only encourage the use - and flushing - of baby wipes.

To help address this, INDA and its partners have developed the Responsible Flushing Alliance to promote consumer awareness about what should and should not be flushed. "Individual companies should use their marketing resources and their public relations resources to share this information because it is something that we as an industry has done a poor job of doing," he adds. (Source from: "www.nonwovens-industry.com")

<<< continue 26

Omnova offers binders, finishers

For nonwovens, many factors affect selection of fibers, web forming, and bonding processes, including process efficiency, product performance, application needs, consumer requirements, and cost in usage. Omnova's polymer bonding and finishing/surface treatments deliver greater flexibility when making these important decisions. In the current volatile raw material scenario, nonwovens converters are looking for flexibility in using different fibers and polymers. In spunlace (hydroentangled) wipes, the raw material blend is typically composed of 50% absorbent fibers (viscose) and 50% non-absorbent fibers (polyester or polypropylene), depending on raw material pricing dynamics and current conditions have reduced the percentage of viscose in many wipe products, which can negatively affect absorption capacity and softness.

However, by using Omnova's new innovative SoftWick SF20 finishing treatment, a wipes producer would be able to reduce quantity of viscose fibers and yet achieve similar to improved performance. SoftWick SF20 would help provide better wicking and utilization of the maximum surface thus improving overall absorption

capacity of the wipe. Furthermore, SoftWick SF20 would help achieve more soft hand for the wipe. Additionally, in spunlace wipes, Omnova's Sunbond binders can help improve wet tensile strength of household and industrial wipes.

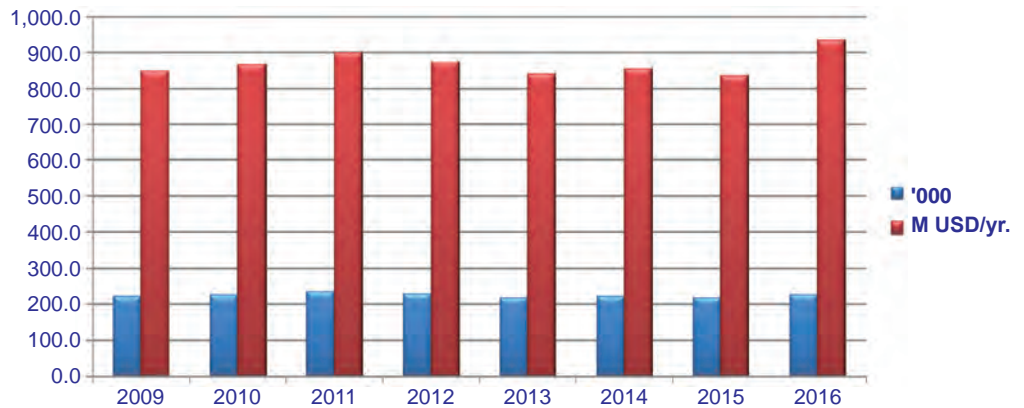
Additionally, softer products and sustainable solutions (environmental consciousness) are prominent trends in absorbent hygiene end use applications. With viscose prices on the rise due to global supply shortage and very few capacity additions on the horizon, cotton could play an important role in nonwovens. Cotton is stronger than pulp and viscose, and is highly hydrophilic. Cotton has a very favorable perception as a material (especially in Asian countries) since it is considered as an indicator of softness and being environmental friendly. But, the higher the cotton content, the weaker the fabric becomes since there are fewer bonding points. Thus thermal bonding, needle punching and hydroentangling would not prove to be effective bonding techniques for providing required fabric strength. Polymer bonding, however, could be the most effective fiber bonding technology, enabling broader use of cotton as a raw material.

(Source from: "www.nonwovens-industry.com")

2016 Korea nonwovens production

Korea nonwovens production (2009~2016)

	2009	2010	2011	2012	2013	2014	2015	2016
K tonnes	220.2	224.9	233.2	226.2	217.1	221.3	216.2	225.5
Mil. USD	847.0	865.0	897.8	872.0	837.1	853.1	833.2	932.3
USD/kg	3.85	3.85	3.85	3.85	3.86	3.85	3.85	4.13



2016 India nonwovens production

India nonwovens production (2012~2016)

Source : BCH



	2011	2012	2013	2014	2015	2016
Needle punched	59.6	75.0	85.3	90.5	96.5	114.1
Spunlaced	13.0	19.6	19.7	25.0	25.5	30.9
Spunmelt	106.2	120.0	138.7	152.7	175.0	202.1
Others (Chemical Bonded / Thermal Bonded / Wetlaid etc)	7.5	8.0	8.8	9.0	15.0	18.0
Total	186.3	222.6	252.5	277.1	312.0	365.1

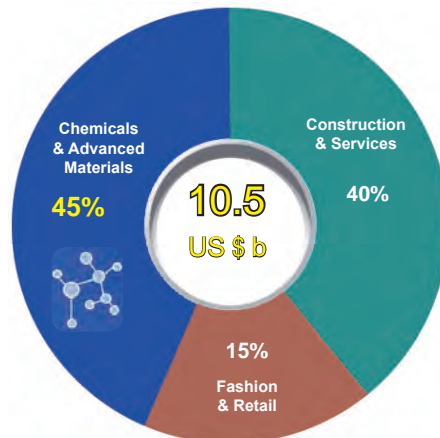


Nonwovens in KOLON

Ph.D. Jin-Il Kim
Central Research Park
Kolon Industries, Inc.

Introduction

~54	Foundation	KOLON began the age of Chemical Fibers in Korea. • Kaemyeong Corporation formed in 1954 (KOLON Group's founding company) • The First Company to produce nylon	 = KOREA + NYLON
60's ~70's	Growth Period	Total Chemical Fiber maker. • Korea's first nylon maker, largest PET yarn manufacturer	
80's	Business Diversification	Expansion to New Business. • Petrochemical Industry, Construction, Finance, • Electronic Materials, New synthetic Fiber, Etc.	
90's	Concentration	Concentration to main 3 Business Field • Chemical & Advanced Materials, Construction & Services, Fashion & Retail	
00's	New Growth	Finding Future Growth Engine • Water, Energy, Bio/Health, Auto/IT	What in Next?



Total Income from 3 Main Business: 10.5 Billion USD

Chemicals & Advanced Materials (45%)
KOLON INDUSTRIES (Manufacturing Part)
KOLON GLOTECH (Material Parts)
KOLON FASHION MATERIAL
KOLON LIFE SCINCE
KOLON PLASTICS
KOLON PHARMACEUTICALS
Neoview KOLON

Construction & Services (40%)
KOLON ENGINEERING & CONSTRUCTION
EFMC
KOLON I'Networks
KOLON GLOTECH (Leisure Part)
KOLON BETNIT
KOLON INVESTMENT

Fashion & Retail (15%)
KOLON INDUSTRIES (FnC Part)

KOLON GLOTECH (BMW / B & O)
KOLON WELLCARE

Future growth engine

- Water Business
- Energy Business
- Bio Business
- AUTO / IT

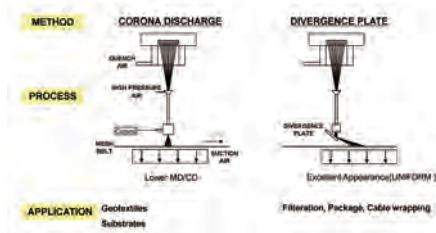
Mega Trend



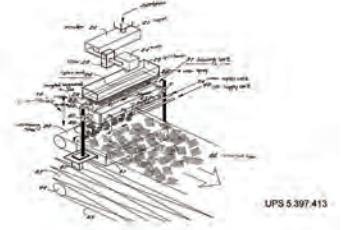
Finon® - Spunbonded Polyester Spunbond Technologies



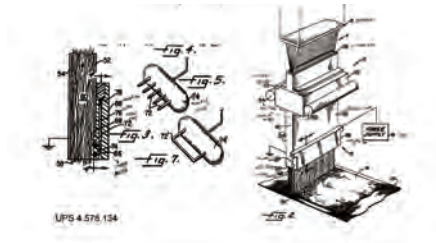
Technology News



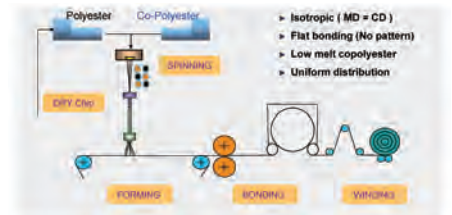
Compact Production



Uniform Web Distribution (Corona)



Newly developed Polyester Spunbond (Kolon's proprietary Technology)

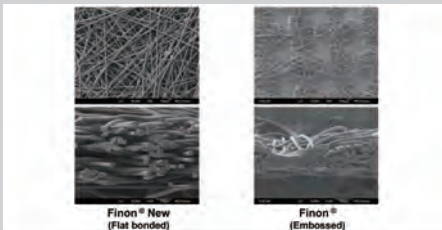


► Isotropic(MD=CD) & Higher Strength

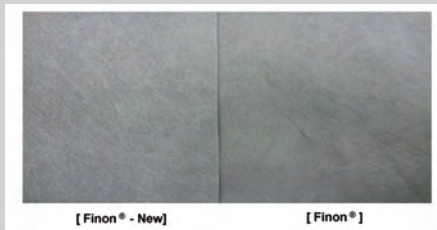
100gsm(MD/CD)

	Finon® (New)	Finon®	KS K 0520
Copolyester	below 200	230	°C
Tensile strength (Total)	38 / 38 (76)	35 / 14 (49)	Kg / 5cm (increase 55%)
MD/CD	1.0	2.5	
Tear strength (Total)	7.5 / 7.5 (15.0)	5.5 / 5.4 (11.4)	Kgf (increase 31%)

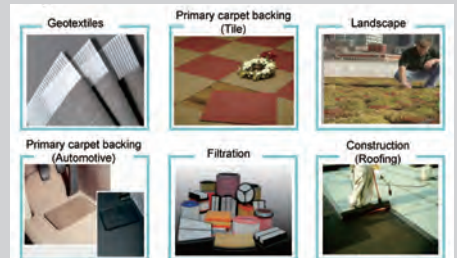
► Flat bonding (No Embossing)



► Uniform Distribution (CV%)



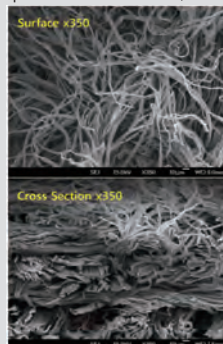
► Applications



Microfiber Spunbond



Splittable Filaments(Bi-co)



► Applications



Technology News

Heracron® - para Aramids

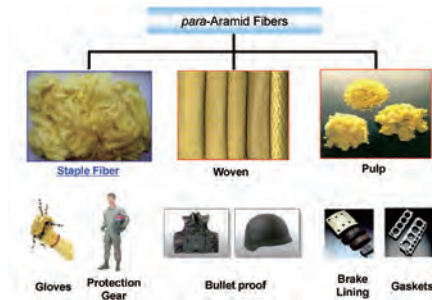
Physical properties of high Performance Fibers

	Para aramid	Meta aramid	Nylon66	Glass	Steel
Density (g/ml)	1.45	1.38	1.14	2.55	7.8
Strength(g/d)	23	5	9	11	11
Modulus(g/d)	950	140	50	320	220
Strain(%)	3	22	20	3	5
Temperature(°C)	250	250	150	350	500

► Para - aramid fibers

* Higher Tenacity * Higher Modulus * Higher Thermal stability

Para - aramid Fibers (Applications)



Staple fibers

Denier 1.5 ~ 4.0

Length (10)35~75 mm

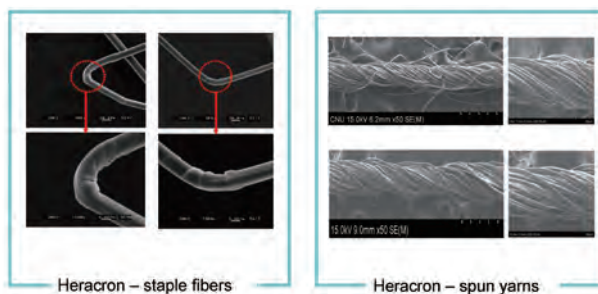


Spun Yarns

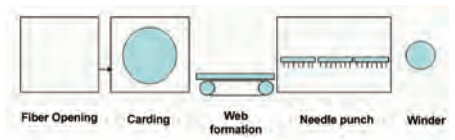
Count 10's ~ 60's

100% Heracron

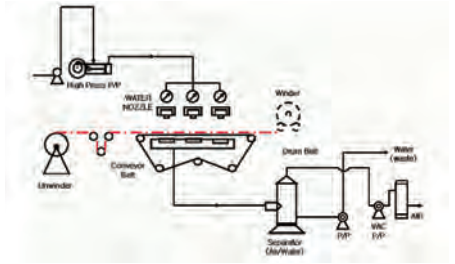
SEM Photographs of fibers and yarns



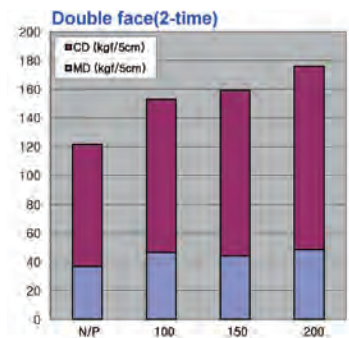
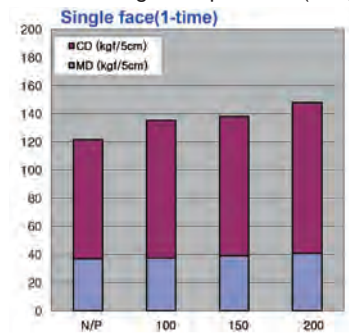
Nonwovens (Needle Punched)



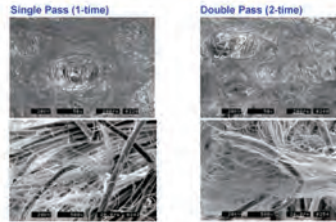
Nonwovens (Spunlaced)



► Tensile strength of spunlaced(200gsm)



Technology News



Applications (Fire protection) – Needle punched



After Exposure Flash fire approx. 3 sec.

Degree of burn(not observed)

Applications (Fire protection) - Spunlaced



After Exposure Flash fire approx. 3 sec.

Degree of burn(slightly observed)

World Wide Market

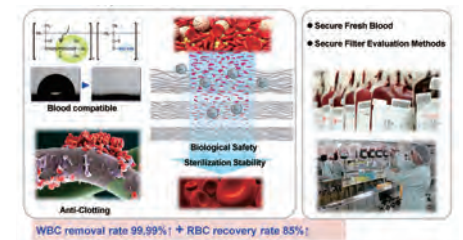
Market category	2013	2015	2000	CAGR
Blood Filter	14,028	15,727	20,468	5.5%

hundred million KRW

Blood Filter Market

- Advance Medical Care (medical welfare)
 - Increase in transfusion reaction
 - Increase in Universal Leukoreduction
- Average Annual Growth of 5.5%

Main Development Content



Summary

* Finon®-High Performance Spunbonded Polyester
 - Isotropic (Proprietary Technology)
 - Flat Bonding (No Thermal Patterns)
 - Wide range of applications

* Heracron® - para Aramid Nonwoven
 - Needle & Water Punched
 - Special applications (Apparel to Industrial)

* Fincell® - Medical Filter
 - Safe Transfusion (Leukocyte Reduction)
 (Source from: "ANFA conference paper", this article extract")

<<< continue 28

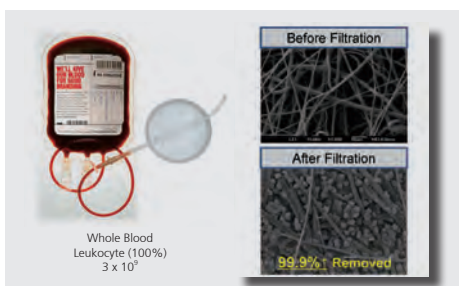
cuffs, front ears and core wrap, A very soft air-through bond fabric is also served for those who are in search of soft touch fabric for premium disposable product end uses.

Apart from HyGen brand, General Nonwovens also produces FilterGen brand for the filtration industry, along with TexGen for coated and laminated fabrics, as well as home textiles, AutoGen for the automotive industry, and IndiGen for industrial and technical textiles applications.
 (Source from: "INDEX 17")

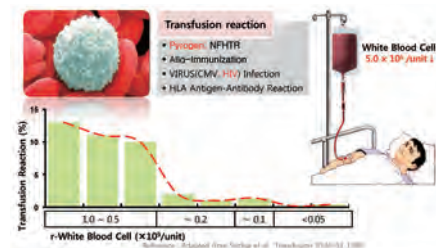
Finocell® - Polyester Meltblown

What is a Blood Filter?

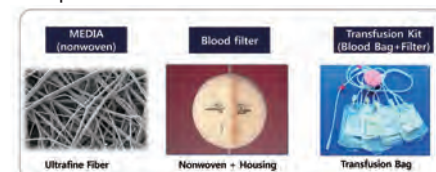
Leukocyte reduction blood filter allows selective removal of leukocytes, also known as white blood cells from the blood.



Why is it necessary?



Composition of Blood filter



Technical Trends

Raw materials help nonwoven producers meet their goals

Innovation in polymers, treatments and additives offer new possibilities in substrate technology

AGC develops repellent for medical nonwovens

Medical products like surgical gowns, masks, drapes and packaging must be able to repel fluids, oil and alcohol, and quickly release stains when laundered. Those properties are achieved by coating nonwoven fabrics with repelling agents before they are fabricated into clothing. However, repelling agents have had a history of sustainability issues because of their potential to break down forming perfluorooctanoic acid (PFOA). To address this problem, AGC Chemicals Americas developed AsahiGuard AG-E600, a high-performance, PFOA-free repellent with improved environmental and biological profiles.

AG-E600 repelling agents have been found to be safe and effective for use in nonwoven medical products. They are based on AGC's patented short-chain C6 polymerization technology, which is nontoxic and does not break down to form PFOA or Perfluorooctane sulfonate (PFOS). In addition, AG-E600 is alkylphenol ethoxylate (APEO) -free and does not contain longer chain length perfluorocarboxylic acids (PFCAs) or their precursors.

AG-E600 is nonflammable, provides excellent alcohol/oil repellency and water resistance for polypropylene nonwovens, and has high compatibility with auxiliary agents. Medical products formulated with AG-E600 maintain their repelling performance through repeated washings.

Americhem provides new materials for the nonwovens industry

Americhem has recently developed a new version of its mBrace softening additive to the nonwovens market. This is in addition to the initial group of mBrace softeners, which let manufacturers achieve their ideal level of softness by reducing the coefficient of friction, or slip. A new version currently under development imparts a cottony, textile feel. This product is thermally stable and helps the manufacturer deliver a soft touch without impacting other material properties. There is also added flexibility in the use rate, which can be customized to the manufacturers'

specific requirements. This allows the user to ensure optimum softness while eliminating any impact to processing conditions.

Both of the product groups of mBrace technology can be combined with other additives and color in an all-in-one product pelleted product. All of the mBrace products offered in Europe are compliant with REACH regulations and the products are available in a variety of packaging options.

Americhem offers new custom-made color masterbatches for nonwovens producers. Increasingly, brand and product colors are becoming of the utmost importance. Americhem gives producers the ability to add custom color to their products. These custom colors can also be combined with one or more additives for ease of dosing and inventory control. Americhem utilizes its expertise in outdoor products to produce nDuramax UV stabilizers which are critical for any outdoor nonwovens application.

Archroma offers color and specialty chemicals

Archroma, a global leader in color and specialty chemicals, offers a broad portfolio of solutions for textiles mills and nonwoven manufacturers. Featured highlights include: Color, with high-performance Printofix TF pigment preparations; Fire Protection, with Archroma's non-halogenated Pekoflam range; Repellency and release from PFOA-free C6 chemistry Nuva N to its Smartrepel Hydro range and Coating package solutions, combining Appetan, Lurapret and Texapret polymers together with Archroma's color and finishing specialties. "The products reflect Archroma's commitment to delivering responsible products and solutions and underscore our key principle as a company that we continuously challenge the status quo in the deep belief that we can make our industry sustainable," states Miquel Vila, head of technical service, brand and performance textile specialties, EMEA.

BASF introduces aqueous acrylic binder

With Acronal 2434, BASF has introduced a new aqueous acrylic binder for nonwovens meeting high thermo-dimensional stability requirements. The binder is particularly suitable for nonwovens that are used for construction and abrasive applications. The innovative binder complements the

Technical Trends

comprehensive BASF product portfolio of binders and resins.

Acronal 2434 is a self-cross-linking acrylic dispersion that lends nonwovens that are exposed to thermal strain high levels of mechanical stability. The binder is suitable for nonwovens made of synthetic fibers such as polyester and is compatible with other cross-linking systems such as melamine and urea resins. It can also be applied with regular foulard systems.

"Acronal 2434 is another high-performance binder that we offer to our customers in the nonwovens industry," says Jürgen Pfister, vice president of dispersions for adhesives and fiber bonding Europe. "Primarily when it comes to nonwovens that are exposed to high levels of thermal and mechanical strain, our novel acrylic dispersion delivers outstanding effects. With this innovative and sustainable binder, we have found a solution that is targeted towards the needs of our customers. This way, we can help our customers be successful."

Eastman microfibers offer diversity

Eastman' Cyphrex microfibers have been developed to satisfy a diverse set of performance needs for increasingly demanding nonwoven applications - especially those in which wetlaid nonwoven and specialty paper producers can benefit from improved strength, uniformity, and reproducibility. Customer-specific development is in progress across a variety of potential end-uses - including, but not limited to, filtration, packaging, highly-durable papers, wallcoverings, and batteries.

Since the initial launch in 2013, Eastman has continued to expand its portfolio of Eastman Cyphrex microfiber products through the pairing of continued advancements in our world-class technology and proprietary microfiber processes - a technology which enables microfibers comprising of unique combinations of sizes, shapes, and materials - with needs and insights gained from external market connect across the nonwoven and specialty paper value chains.

It is the need for innovation within the nonwovens industry that drives customers to continually seek new material inputs which allow them to access differentiated

performance in their products without requiring that they make significant process and/or operational changes to do so.

After launching the Eastman Cyphrex microfibers platform with a pair of differently-sized round microfibers, specifically Cyphrex 10001 and Cyphrex 10002, which initially targeted filtration applications, ongoing conversations with leaders in the nonwovens industry suggested a need for a synthetic fiber that could be compatible with an added value to materials with a high content of cellulose pulp - i.e. so-called specialty papers.

Exxon expands polymer range

ExxonMobil Chemical has introduced new grades of low viscosity Vistamaxx performance polymers for hygiene and assembly hot melt adhesive applications. Vistamaxx 8780 and 8380 grades expand the adhesive application options of Vistamaxx 8880 which became commercially available in 2015. These three low viscosity polymers enable the formulation of high-performance, low odor, low density hot melt adhesives used in packaging, hygiene and assembly applications. Based on ExxonMobil's proprietary metallocene technology, Vistamaxx polymers enable the development of a new generation of low odor, minimal color, premium hot melt adhesive formulations that offer trouble-free application.

Vistamaxx 8380 is also well-suited for hot melt adhesives used in assembly applications, such as woodbanding, lamination and automotive. It allows thermally stable formulations with improved adhesion and heat resistance compared to APAO- and EVA-based formulations, while providing low odor and minimal color. Formulations can obtain polymer loadings of 70-90%, resulting in lower density and higher mileage as a potential source of added value for assembly adhesive consumers.

Vistamaxx 8880 is well suited for packaging applications including case and carton sealing. It enables formulations with polymer loadings as high as 90%, about double that of formulations using ethylene vinyl acetate (EVA) or MCN-PE. This leads to significantly lower density, lighter weight formulations, which can provide added value as less product is used to create a stronger bond enabling more boxes to be secured with the same amount of adhesive. >>> next 19

Product News

Don & Low launches compost cover fabrics

Windrow TX responds to the need for lightweight and breathable compost covers on open windrow installations

Don & Low has launched its next generation in compost cover fabrics – Windrow TX. The new fabric was designed and created as a result of a recent study conducted by the James Hutton Institute (JHI), which highlighted the need for lightweight and breathable compost covers on open windrow installations - particularly for odor control at sites close to urbanization.

Specifically designed to maximize breathability and durability, the polypropylene (PP) and UV stabilized nonwoven fabric minimizes the critical dimension of weight. At 150g/m², Windrow TX is less than a third of the weight of conventional compost covers, providing the compost industry with the latest generation of breathable covers for open windrow installations.

Windrow TX provides open windrow sites with greater ease of use, as it can be managed by one person while maintaining the same protection characteristics as traditional, heavier weighted compost cover fabrics. The lightweight textile also excels in odor reduction, increased compost yield and durability.

To quantify the effectiveness and additional benefits of using Windrow TX, a trial was carried out at the Forth Resource Management (FRM) composting site in partnership with the James Hutton Institute.

Tommy Dale, FRM managing director, states, "If it hadn't been for the covers, we [Forth Resource Management] would have found it difficult to keep composting substantial volumes at the Braehead site."

Choosing the right open windrow cover is vital to reduce odor, dust and bio-aerosols; as well as providing the right protection from the drying effects of the sun and the wind, and waterlogging from the rain and snow. Windrow TX can provide this type of protection for open windrow installations.

Developed for use in a single layer cover,

Windrow TX offers a physical barrier against the release of dust and bioaerosols, while allowing the windrow to breathe. Externally the lightweight cover also provides protection against birds and insects.

Fully recyclable and with enhanced odor reduction capabilities, Windrow TX is a lightweight and cost-effective solution which aids compliance with SEPA (Scottish Environment Protection Agency) BAT (best available technique).

(Source from: "www.convertingguide.com")

Acoustic Fleece for Ceiling Panels Offered

Ahlstrom-Munksjo's acoustics offers noise reduction and fire resistance

Yesterday at Techtextil, the newly merged Ahlstrom-Munksjo presented a range of textile-based solutions for applications ranging from construction to filtration to home products to food packaging. Among these products were the company's unique range of nonwoven fleece for ceiling panels using wetlaid technology. Using the expertise developed in the implementation and choice of natural and synthetic fibers, Ahlstrom-Munksjo can create high performance solutions, engineered to meet its customers' key requirements for acoustic ceilings—sound absorbency and fire reaction.

The fleece is simply cut and glued onto the back of panels without the need for any extra matting. The fleece then works with a perforated ceiling to reduce noise and provide acoustic comfort.

(Source from: "www.hsengineers.in")

Jones Nonwovens' FR technology proven successful

Thermally bonded nonwoven fire barrier in mattress prevents warehouse fire

Jones Nonwovens' recently received a testimonial on the efficacy of its thermally bonded nonwoven fire barriers for the mattress and furniture industries.

Jones' fire-barriers are nonwoven construction engineered for maximum thickness and comfort retention. They come in a clean white color for use below ticking. The products can be multi-layered or homogeneous, depending on the customer's needs for pure-white tops

Product News

or unique blends of different types of fibers.

Kevin Portch, owner of Loepp Furniture in Grand Coulee, WA, recently had a close call in his warehouse. The company stores its mattresses downtown in an older building that has multiple built-in heaters in the walls close to the floor. The delivery crew had complained of a burning smell in a couple of the rooms where mattresses were stored in their factory plastic bags. Portch had gone into the warehouse on a couple of occasions and also noticed the smell. He tried to locate the origin but had no luck. He decided that with the building's age, it might be a wiring or lighting problem, but the room still smelled like burnt plastic.

Two days later, a sales associate pulled out a bed to read a label on it and found that the bottom of the bed had been smoldering for what looked like several days. The plastic was melted, and the bed looked like it had all but caught on fire. An employee had inadvertently turned on one of the wall thermostats, which in turn fired up the space heaters. The mattresses should have caught on fire and burned the building to the ground, but thanks to the fire resistant technology inside the mattresses, that did not happen.

"I'm extremely thankful that Therapedic chose to put the flame-resistant barrier from Jones Nonwovens on the sides of their products," Portch says. "I would be looking at a total loss of not only my building but of our inventory as well."

"Life safety products have been in the foreground of what Jones Nonwovens is all about for several decades," says Kenny Oliver, president of Sales. "This testimony demonstrates why we do what we do." (Source from: "www.convertguide.com")

Lab device for spinning nonwovens

Nanoval is presenting a new lab device for spinning nonwovens. It is said to be compact but also very flexible in changing the parameters of the spinning process. It is suitable for:

- Testing of new raw materials prior to production
- Assessment of spinning behaviour of new polymers

- Optimization of spinning parameters, variation of filament fineness and filament diameter distribution
- Specific adjustment of web formation and web properties for product development.

For the scope of meltspun polymers, Nanoval offers spinning systems for eg filter media, such as PP PE, PA, PLA, PET, PBT and PPS.

For the scope of solution-spun polymers (lyocell/cellulose), Nanoval offers spinning systems for nonwovens made of sustainable materials, such as paper pulp or dissolving pulp, cotton linters or waste paper.

After more than 10 years of the development of a small team, Nanoval offers its new spinning process as an alternative to conventional meltblown nonwovens, According to the company, a high web uniformity has been achieved; and the patented spinning process using a laval nozzle in many individual spin cones is unique, which results in a lower demand of spinning air compared to the long meltblown air-slot and thus, lower energy consumption. In addition, filament distributions can be spun narrow and broad: Mixed micro-nano webs (multi-denier webs) up to the spunbond region are possible: and the nonwovens from Nanoval have both a higher strength as well as a higher elongation with respect to the nonwovens made by the meltblown process, It also features air permeability whereby the air permeability is higher even at high filter efficiency.

(Source from: "INDEX 17")

Soft touch nonwoven fabrics

General Nonwovens of Turkey, a member of Imam kayali Holding, is exhibiting its full range of products, along with its latest developments in 100% PLA spunbond and ATB (air-through bonded) soft touch nonwoven fabrics, The company has been producing nonwoven fabrics for over a decade. During this period, the company has expanded its operations to two factories in Turkey, along with the expansion in offerings made to the nonwovens industry.

General Nonwovens' HyGen brand products are widely used in the hygiene industry, namely for topsheets, backsheets, ADL, leg

>>> next 24

第十七届上海国际非织造材料展览会 (SINCE) 2017年11月10日在上海世博展览馆圆满落幕!



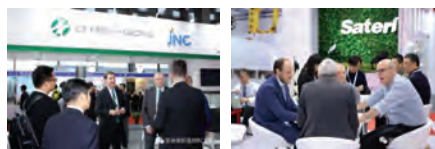
为期三天的展会汇聚了来自中国、美国、韩国、日本、印度、新加坡、英国、德国、法国、比利时、意大利、瑞士、土耳其、芬兰等全球22个国家及地区的461家海内外展商，共计吸引了来自全球62个国家及地区的22,218名观众。该些人士来自包括复合材料、医疗卫生、服装、汽车装饰、过滤及分离、农业、家用及工业用抹布、包装材料等在内的20多个下游应用领域。



30000多平方米的展会现场，汇聚了欧瑞康、AUTEFA、REIFENHÄUSER、MOGUL、致优无纺布、特吕茨施勒、东丽、安德里茨、Dilo、大连瑞光、杭州诺邦、浙江宝仁、旭化成、南六集团、俊富、JNC、欣龙、兰精纤维、住友精化、尤尼吉可、厦门延江、恒天嘉华、福建南纺、诺信、绍兴耀龙、稳健医疗等461家海内外展商，展品范围涵盖：原材料及辅料；非织造布卷材；生产设备，辅助设备及零配件；非织造制成品及化工原料等上下游材料。

与此同时，11月8日，9日举办的同期活动（培训课程，过滤与分离技术研讨会，展商技术演讲）为中国和世界非织造材料工业的广大业者提供最新信息，技术动态，市场状况，不仅有利于中国非织造材料工业的进一步发展，更为推动世界非织造材料工业的发展做出了巨大的贡献。

展会精彩回顾



丰富的展品内容



第十七届上海国际非织造材料展览会的成功举办，离不开三十多年来持续参加以及

同期活动精彩回顾



不断新加入的展商以及观众的支持，我们也将不断努力，不断创新，用更优质的展会，更完美的表现来回馈大家!

2017“全国大健康、大医疗与非织造产品高峰论坛”圆满落幕!

为期三天的2017“全国大健康、大医疗与非织造产品高峰论坛”12月8日在广州圆满落下帷幕!

本次论坛由中国技术市场协会非织造材料专业委员会（全国非织造材料技术协会）CNTA、全国非织造科技信息中心CNIC、国家非织造材料工程技术研究中心CNETRC主办；博闻中国UBM、亚洲非织造材料协会ANFA、欧洲非织造材料协会EDANA、台湾不织布工业同业公会、上海长三角非织造材料工业协会、广东省无纺布协会、佛山南海区医卫用产品行业协会协办；并得到了欣龙控股（集团）股份有限公司、佛山南海必得福无纺布有限公司、诺斯贝尔化妆品股份有限公司、浙江金海环境技术股份有限公司、广州海鑫无纺布实业有限公司、广东一洲新材料科技有限公司等企业的鼎力支持和参与。

本次论坛与会代表逾150人，汇聚了国际及国内的重要企业及相关组织、从宏观市场状况、发展方向、技术创新等多角度共同探讨医疗、保健、卫生、个人护理、清洁非织造产品的可持续发展。



亚洲非织造材料协会ANFA会长，黄清山先生



亚洲非织造材料协会ANFA 秘书长
Yuichi Komuro 先生



欧洲非织造材料协会EDANA 总经理
Pierre Wiertz 先生

更多精彩瞬间



与会者认真听讲



现场头脑风暴精彩不断，与会者积极参与讨论

SINCE 2017上海国际非织造布展览会 安德里茨无纺布重点推出其针对亚洲 市场的最前沿技术

格拉茨2017年9月30日讯。安德里茨无纺布是国际技术集团安德里茨的一部分，在中国上海举办的2017年上海国际非织造布展览会上（11月08日至10日）展示其针对亚洲市场技术的创新无纺布生产解决方案。

安德里茨无纺布aXcess 热轧机系列 – 纺粘应用的关键设备

neXcal aXcess双刻花钢辊热轧机，是安德里茨aXcess热轧机系列的最新开发产品，源于知名而久经考验的neXcal双刻花钢辊技术。速度可达600米/分钟，标准滚筒门幅可达3800毫米，neXcal aXcess双刻花钢

辊热轧机是针对中等产能生产线的现成解决方案。在生产中一个刻花辊和一个辊处于待机位置，三辊热轧机确保了中等产能无纺布市场极大的灵活性。neXcal紧凑型双辊热轧机更是补全了ANDRITZ aXcess热轧机的组合。

提升中国市场之标准：带TT双梳理和JetlaceEssentiel的安德里茨neXline eXcelle水刺设备

中国无纺布制造商越来越需要更高产能和顶级品质的水刺无纺布产品提供给当地和出口市场。安德里茨无纺布具有正确的解决方案，提供配备TT双梳理纤网成型和JetlaceEssentiel的neXline eXcelle水刺设备，具有非常高的产能。今年已经销售了几条线，第一条线将于2017年底前开始运营。前沿的中国无纺布生产商已明确瞄准这一配置。

此外，安德里茨无纺布还提供一种交叉铺网配置的neXline eXcelle水刺设备配置，特别适用于技术产品和一次性面罩。

安德里茨（中国）有限公司无锡分公司 – 亚洲无纺布行业整线和全套服务之供应商作为无纺布行业的全面合作伙伴，安德里茨（中国）无锡分公司涵盖了无纺布aXcess生产线和单机的销售、技术、制造、运营和服务。安德里茨aXcess系列专注于具有中等产能要求的生产商，结合成熟技术的优势，提供所有无纺布可靠解决方案，如卫材、擦拭巾、一次性面罩、汽车、过滤和土工布。

安德里茨无锡是致力于满足当地市场需求的主要零部件制造商，如梳理机、交叉铺网机、牵伸机、针刺机、水刺机和烘干机。此外，完整的生产线和单机在交货前已在工厂通过预组装和检查。



▲ 安德里茨无锡：
配备磨床设备的服务中心

行业信息



▲ 安德里茨无锡:
配备neXline aXcess 针刺机的技术中心

无锡安德里茨轧辊服务中心包括最先进的研磨设备和直径达1米，长度为10米的各种辊筒的试验台。在这里，安德里茨为客户提供完整的辊筒服务，如维修和升级，均符合亚洲纺织、无纺布和造纸工业的欧洲质量标准。 (>>> 下转41页)

SAF™在第十七届上海国际非织造材料展览会呈现

亚洲最大的非织造布展会于11月8日-10日在上海世博展览馆举行，Technical Absorbents公司再次展出SAFTM及相关的最新的产品。

SINCE从1986年首展以来，已经发展成亚洲最大最重要的非织造布展。今年参展商达450家，观众25000人，覆盖卫材、医疗、过滤、居家等广泛的工业领域。

Technical Absorbents公司从90年建立以来，创建的超吸水解决方案已经应用于许多领域。作为世界上主要的超吸水纤维制造商，也成为了全球超吸水材料的革新者。其自有的针刺无纺布研发生产线以及与广泛的后续加工商共同开发以满足客户的不同需求。基于客户的需求或将新的想法实现，其研发团队源源不断地给市场带来新的解决方案。

此次展会，Technical Absorbents公司为大家展现新的可水洗超吸水非织造布。此材料作为芯层使用，其产品可被水洗，干燥后最小量丧失吸水能力。此产品主要应用于卫材或服装领域，也可应用于其他未知领域。

Technical Absorbents公司与其合作伙伴开

发了更多的低克重产品(20-80gsm)同时展出，此类产品即降低了织物的厚度、材料成本，同时也最大化了材料的吸液能力。

(>>> 下转35页)

东丽集团华南非织造布项目正式落户九江

近日，佛山市南海区人民政府与日本东丽株式会社签订了《投资意向书》，东丽集团华南非织造布项目正式落户位于九江镇的中国医卫用非织造产品示范基地。这标志着该示范基地实现了“全球第一、全亚洲第一、全国十强”医卫用非织造布企业三级架构的全覆盖。

示范基地迎来重量级新成员

近年来，九江大力培育医卫用非织造产业，打造中国医卫用非织造产品示范基地。基地先后培育及引进了包括全球最大的非织造布生产商美国贝里塑料集团南海南新无纺布有限公司、全国非织造布十强企业必得福等非织造布生产巨头，允笛薄膜材料、倩而宝卫生用品等一批中下游优质项目。

现时，基地又迎来了“重量级”的新成员。日本东丽集团拟投资2亿美金，在中国医卫用非织造产品示范基地建设占地150亩的纺粘非织造布华南项目。该项目计划引进年产量高达20000吨的PP纺粘非织造布生产设备，投产后预计可超10亿元年产值，超亿元税收。

东丽集团相关负责人表示，优良的投资环境、优质的产业基础和优越的营商环境是东丽集团选择在九江投资兴业的根本原因。据悉，日本东丽集团成立于1962年，以有机合成化学、高分子化学和生物技术作为核心技术，是全球领先的综合化工企业。



(>>> 下转50页)



when water absorbency is paramount - you're in SAF hands

市场动态

安德里茨和汕头三辉签署中国销售合作协议

格拉茨，2017年11月7日讯。安德里茨（中国）有限公司无锡分公司，国际技术集团安德里茨的一部分和中国领先的针刺机供应商汕头三辉无纺布机械厂有限公司签署了独家销售合作协议，为中等规模的中国无纺布生产商提供极具竞争力的产品和综合服务。

ANDRITZ aXcess系列纤网形成设备和三辉针刺机一起完美匹配，适用于中等产能生产，结合了成熟技术的优势为所有非织造材料领域提供可靠的解决方案。为满足高端或高产能的要求，安德里茨无纺布提供它位于欧洲生产基地生产的eXcelle系列设备（梳理机、交叉铺网机和针刺机）。

安德里茨（中国）有限公司无锡分公司是非织造布行业的全面合作伙伴，提供无纺布aXcess生产线和单机的技术、制造、运营和服务能力。它还为中国当地市场提供关键部件，如梳理机、交叉铺网机、牵伸机、水刺单元和烘干机。

汕头三辉无纺布机械厂有限公司是中国领先的无纺布针刺机供应商。公司可以追溯16年的经验，已成功制造了7.2米幅宽的高频针刺机。

两家公司都参加在中国上海举办的SINCE 2017展会，展示其创新的无纺布生产技术。

Brückner展示了一系列的用途

机械供应商展示了产业用纺织品的很多用途

近期在产业用纺织品展上，德国系统供应商以及技术市场的领导者Brückner展示一系列产业用纺织品的应用实例，这些都可以做到定制和节约能源，在Brückner的设备上完成。一系列为了特定目的设计的特定的设备展示了Brückner团队的创造力。

德国的西南部是最大的一个产业用纺织品中心，其可以达到纺织品生产量的50%以上。Brückner家族企业位于Swabia的Leonberg和Bavaria的Tittmoning，由企业第

二代管理者Regina Brückner和她的丈夫Axel Pieper共同经营。附近的纺织研究机构，如Denkendorf的ITV有许多合作项目和开发都是用Brückner生产的特殊设备完成的。

展台上多种样品的展示，邀请参观者与Brückner的专家进行讨论。Brückner展示了两台针对非织造布的超流BX双带式烘箱以及尤其适合PVC涂层以及粘合剂的富有创造性的Etro弓形干燥机的模型机，可以用于非织造布以及薄片的后处理工艺。

此外，Brückner为产业用纺织品的涂层提供了非常难的应用系统。它们当中的其中一个就是Eco-Coat最小应用单元。在Leonberg的技术中心，客户可以在不同的设备上试验他们自己的创新性产品。

包括具有最大生产能力，最小的可能热量消耗以及最大的温度控制以及气体循环精度的轧车、干燥装置、热定型装置以及固化炉是Brückner产品系列的组成部分。各种切割和卷绕机，可在产品组合中形成任何形式的产业用纺织品。

这里仅展示了由Brückner后处理线加工用于最后应用的一些例子：用于电路板的玻璃纤维编织物，织物增强材料的碳纤维织物，汽车和航天领域的墙壁以及顶棚用的衬料，安全气囊，医疗产业用的高科技过滤材料，卫生用品，堤坝加固材料用的土工布。

(资料来源：“www.nonwovens-industry.com”)

OFFICE SPACES™电视节目播出JOHNS MANVILLE的屋顶材料的创新

JM先进的制造唱主角

Denver—(BUSINESS WIRE)—Johns Manville (JM)，作为一个全球建筑材料生产厂家和一个Berkshire Hathaway公司，在第三季度的Office Space™节目的一个精选集中进行播出。Office Space™聚集在商业建筑上的创新以及设计空间来探索影响我们生活、工作以及娱乐的尖端产品和技术。描绘JM的这一部分，署名为“遇见JM商业屋顶创新技术背后的发明者，效率及使用寿命的创新”，在2017年7月9日下午五点的FOX Business Network的ET上进行直播。

市场动态

除了在FOX Business上的首次播出之外，来自于JM制造工厂的录像及报告将针对全国100多家的站点进行广播。

JM屋顶系列的项目经理，Joe Smith说“Johns Manville从160年之前就开始了屋顶材料的创业历程，具有很长的历史创新性。我们希望展示我们的产品，并让大家知道这些产品的创造者。这是一个很好的机会，让我们讲述我们的故事，展示Johns Manville在服务行业的领导者地位。”
(资料来源:“http://jm.com”)

过滤专家曼胡默尔收购了Jack Filter Lufttechnik 和 Jack Filter Hungaria

位于德国路德维希堡的曼胡默尔集团已经签署了一项有约束力的协议，收购Jack Filter Lufttechnik和Jack Filter Hungaria公司。成功收购Jack Filter后，曼胡默尔扩大了其产品范围，特别是在高效空气过滤器(HEPA)领域。两家公司都没有发布有关收购价格的信息。

曼胡默尔是一家全球的家族企业，为汽车、工业应用、室内空气清洁和水的可持续利用提供过滤解决方案。Jack Filter也是家族企业，成立于1947年，Jack Filter的产品组合进一步扩展了广泛的曼胡默尔产品系列。Jack Filter的管理合伙人Alexander Gaggi目前负责曼胡默尔的全球智能空气解决方案的业务。收购的公司专业生产和销售空气过滤器，用于通风、空调和洁净室。这些公司的销售额约为1000万欧元，员工约100人。

(资料来源:“www.nonwovens.com”)

阿斯顿强生购买Foss Manufacturing的新罕布什尔州针刺业务

阿斯顿强生宣布收购位于南卡罗来纳州查尔斯顿新罕布什尔州汉普顿的针刺工厂。根据锐思(RISI)的非织造公司简介，阿斯顿强生收购的工厂至少有十二条针刺线，服务于各种用途领域，包括汽车、船舶、游览车、墙纸、装饰和工艺品。

Foss将保留其Georgia的针刺业务，这是该公司近期的增长重点，主要致力于铺地材料相关产品。

(资料来源:“www.nonwovens.com”)

新的投资—将生产预浸渍玻璃纤维毡热塑性复合材料

Carver Non-Woven Technologies公司是一家创新性高品质的供应商，生产单层和多层非织造材料产品，并即将开始采用其全面的非织造制毡技术，商业化生产预浸渍、预固化的玻璃纤维毡热塑性(GMT)复合产品。一台新的双帘带复合层压设备正在该公司的生产工厂中做最后安装调试，该设备由瑞典的山特维克集团下属Sandvik TPS Composite Solutions公司提供。新设备于8月中旬开始商业化生产，将可提供客户预固结的连续卷材及按规格裁切的片材，以便客户采用红外线预热模压这些带有热塑性基材的非织造材料成为三维立体形状。

双帘带复合层压设备广泛用于生产带玻璃纤维或碳纤维增强材料的预浸料和定向带。该设备还用于采用热塑性或热固性材料来固结玻璃纤维和碳纤维毡，纤维网或交叉铺层的增强材料(包括采用混合聚合物基纤维的织物和非织造材料)。

当以前红外烘房用于传统的非织造材料时，贯穿整个纤网厚度的所有纤维都被加热(不仅是顶部和底部表面)，并且加热持续时间比典型的接触式加热方式更长。在预热过程中会对未固化的非织造材料带来问题，特别是材料中含有热敏感的天然纤维会燃烧或碳化，或热塑性纤维如聚丙烯可能收缩，下垂或甚至熔化。在成型商不能证明安装接触式加热系统资金成本的情况下，改变为预浸渍和预固结非织造材料将带来几个好处。首先，热塑性纤维的收缩较小，所以成型生产商不需要购买更宽的卷材或片材，从而节约资金。第二，预固化产品的加热速度更快，这样可以减少预热和成型过程中的时间和能量需求，同时降低材料损坏的风险。

(资料来源:“www.convertguide.com”)

Avgol Lux系列非织造材料

Avgol Lux系列非织造材料适用于婴儿尿裤、成人失禁和女性卫生产品，旨在为卫生产品制造商提供一种视觉上独特的柔软触感面料解决方案。

设计纸尿裤适合的面层、底层与腿箍应用

市场动态



材料，以及魔术贴和吸水层，Avgol Lux系列材料可满足全球最新卫生产品设计趋势的需求。

在多年的开发过程中，Lux系列产品已经在许多产品性能参数上进行了重大的研发投入，优化了柔软度和机械力学性能。该系列产品获得了很好的市场反馈，近几个月会在亚洲市场推出。

现在，Lux系列产品在视觉上截然不同，体积上使消费者产生柔和感，并通过其触感表现来区分：

- Avgol SB & SMS Lux 柔软的触感
- Avsilk SB & SMS Lux 丝滑柔和
- Avsoft & Avspun SB & SMS Lux 棉柔触

更多关于Avgol Lux系列柔软非织造布的相关信息，请咨询info@avgol.com。
(资料来源:“www.avgol.com”)

终止湿巾粘合盖的缝隙—来自Avery Dennison的新型粘合剂

OEGSTGEEST, 荷兰——湿巾是世界上最受欢迎的清洁产品之一。但到目前为止，湿巾包装上的粘合剂通常会失效，剩下的湿巾会变干，而客户会失去购买价值。

Avery Dennison欧洲选择解决方案总监Jenny Wassenaar说：“如果选择的一种用于家用湿巾的粘合剂，不能在技术上阻止正在使用中的湿巾溶剂（例如柠檬烯）的挥发，在湿巾的使用期限内包装不能重新密封。就意味着顾客无法正常使用整包湿巾，从而对购买的产品失望，甚至将来会改用其他品牌。”

Avery Dennison公司凭借其高耐溶剂粘合剂MR980R和UVR155，在Select Solutions™产品系列中创造了一个新台阶。这些粘合剂主要解决了湿巾盖的密封性问题：粘合剂封闭盖对于湿巾中的溶剂而言非常脆弱。

MR980R在光滑PET包装上提供卓越的功能。它设计用于家用湿巾，可经受化学品，并在柔性包装上提供高强度的粘附力。

UVR155是非光滑包装的首选，通常用于婴儿、化妆品和卫生湿巾。这两种粘合剂都是专门为具有挑战性的擦拭应用（如家用擦布）所开发，可提供高至中等的初始粘性和流畅的剥离。

购买湿巾的消费者主要考虑其便于开启/关闭。对于生产商和品牌拥有者，优先考虑性价比较高的硬质塑料盖和其他重复闭合解决方案的替代品。

家用湿巾正在快速增长，现在越来越多地用于不同的家庭和个人护理。Avery Dennison的粘合剂系列确保了广泛应用于婴儿、化妆品、卫生间和家用所需的性能。我们的粘合剂甚至可以处理与有挑战性的溶剂接触，例如油和化学品。

有关公司高耐溶剂粘合剂的更多信息，浏览label.averydennison.eu。
(资料来源:“www.averydennison.com”)

浙江华江公司订购了Dilo的两条生产线

中国浙江华江科技股份有限公司订购了两条Dilo的针刺生产线，从而巩固了浙江华江与Dilo之间的强有力的伙伴关系。这些线包括DiloTemafa的开松混合设备，DiloSpinnbau的梳理喂入和梳理机以及DiloMachines的交叉铺网机和针刺机。

浙江华江是中国最大的GMT(玻纤毡增强热塑性复合材料)产品供应商之一。该客户已经运行了三条Dilo生产线，并增加了汽车用玻璃纤维和聚丙烯成型零件的生产能力。
(资料来源:“www.dilo.de”)

Foss Floors公司订购了Dilo的生产线

Foss Floors总部设在美国佐治亚州的罗马，Dilo已经收到了来自Foss Floors公司的订单，为其提供一条完整的Dilo针刺生产线。这一订单再次证明了Foss和Dilo之间牢固的伙伴关系。

该条生产线适用于地毯的生产，包括一条DiloTemafa最新的开松混合线，DiloSpinnbau幅宽为3米的梳理机，DiloMachines带有CV1系统的DLBS 30/50交

市场动态

叉铺网机和两台带有一体化的工艺控制系统DILO-PCS的DI-LOOM针刺机。

Foss Floors运营着其他几条Dilo的生产线，包括高速花纹针刺机，该机型是非织造布针刺地毯和专业地板产品的知名领导者和先驱者。

(资料来源:“www.dilo.de”)

PEGAS NONWOVENS公司签署了一份关于为Znojmo工厂提供半商业化生产线的合作谅解备忘录

LUXEMBOURG / ZNOJMO - PEGAS NONWOVENS有限公司(以下简称“PEGAS”或“公司”)宣布已与生产技术供应商莱芬豪舍签署了一份合作谅解备忘录，内容为在捷克共和国的Znojmo-Přimětice工厂交付半商业化的RF5 Bico FHL R&D 2F生产线。

根据使用的原材料及生产的产品，该生产线的年产能在0.8-1.5万吨之间。提供生产线的最终协议在2017年底达成，并且将在2019年第三季度投入商业生产。

“为了开发一种新型技术，在过去两年里，我们与莱芬密切合作，这份协议的签署，标志着该项目达到了一个重要里程碑。该新技术基于Reicofil 5平台和‘no-basement’概念，采用成熟的双组分技术，可以生产多种类型纤维和纤维截面，适合目前工艺的那些原料之外的其他原料也可使用。该技术的重要组成部分是非织造粘合系统，区别于当前使用的常规系统。

由于其发展潜力，我认为这种半商业化技术成为我们新成立的全球创新中心的基石。我对该创新中心寄予很高的期望，并相信它将有助于我们新产品的研究、测试以及后续商业化生产获得重大成果，为当前及新市场提供新产品应用。PEGAS NONWOVENS有限公司董事长František Řezáč说。

(资料来源:“www.pegas.cz”)

Thrace-LINQ扩展了在多尔切斯特的运营

纺织行业的全球供应商Thrace-LINQ投资了900万美元，用于扩大多尔切斯特的运

营，预计将创造至少10个新工作岗位。Thrace-LINQ生产的非织造材料用于各种纺织应用，包括：土工合成材料、汽车、建筑、铺地材料等。

在萨默维尔市的北美总部有制造和配送中心，Thrace-LINQ是希腊雅典Thrace集团的成员。在2018年初，Thrace-LINQ将开始安装最先进的生产线。新职位的招聘将在2018年第二季度开始。

Thrace集团的首席运营官兼首席执行官Board George Braimis说：“这条新生产线是我们在南卡罗来纳州成长性公司的一系列投资计划之一。Thrace集团将继续在人才和技术上进行投资，我们对Thrace-LINQ的未来充满希望。”

Thrace-LINQ总经理Brian Sparks说：“Thrace-LINQ员工们努力的工作使这项投资成为了现实。我们期望着在我们令人期待的战略计划中，这是一个重要的里程碑。”

州长Henry McMaster说：“我们的劳动力资源已经证明是世界上最好的。这种声明将继续提升南卡罗来纳州在全球舞台上的声誉，我们是能胜任任何工作的州。我们一直在努力创造一个有竞争力的、亲商的环境，并且我们的努力还在继续。”

商务部长Bobby Hitt补充说：“南卡罗来纳州自豪地引领着制造业的复兴，而Thrace-LINQ的扩张是我们州兴旺发达制造业的又一场胜利。这一新的投资为南卡罗来纳州及制造优质产品的技术精湛的雇员赢得了声誉。”

(资料来源:“www.fibre2fashion.com”)

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“亚洲市场对于Technical Absorbents至关重要”，商务总监Paul Rushton介绍到，“亚洲市场已经对SAF™材料有一定的了解，我们希望通过SINCE平台为更多的人介绍我们的产品，并一起拓展更多的应用领域”。

“过去几年中，我们已经将我们的超吸水产品进一步开发，我们非常期待与各领域的专家深入交流”。

市场趋势

Nobel Hygiene公司在印度北部拓展

成人尿裤制造商计划在印度北部以及海外建立设施

Nobel Hygiene公司是印度最早生产成人尿裤的公司之一，也是该领域的市场领导者（根据新加坡Euromonitor公司统计其占据了印度65%市场份额）。为满足该国成人和婴儿尿裤日益增长的需求，公司正计划在印度北部设立新工厂以扩大产能，公司高层表示。

Nobel Hygiene公司总经理Kamal Kumar Johari表示：“我们已经看到成人尿裤的需求量从2000年的零到2016年约1亿片的需求量。此外，婴儿尿裤市场年增长速度为25-30%。因此，我们计划今年在印度北部的德里首都地区或北方邦建新厂。”他表示，该公司将投资2.5亿卢比建立该新的生产设施。Nobel Hygiene公司已在马哈拉施特拉邦的纳西克建了一家工厂，安装有六条全自动化的生产线，生产成人及婴儿尿裤和女性卫生用品。

Johari先生表示该公司还计划在其他国家设立生产基地。不过，他并没有透露地点。他说：“该计划可能很快就开始实施。”

据行业官方统计，全球一次性卫生用品市场估计为500亿美元，其中也包括尿裤和卫生巾市场。在印度该市场估计为600亿卢比。

印度市场由三家跨国公司主导：宝洁、金佰利和日本的尤妮佳，生产销售品牌分别为帮宝适、好奇和妈咪宝贝。Nobel Hygiene公司有两个品牌：成人尿裤品牌为Friends，婴儿尿裤品牌为Teddydy。

Johari先生表示，过去七年公司的年增长率为30-40%，而行业平均年增长率为20-25%。“我们是印度唯一一家生产所有类型尿裤和护垫的公司。另外，尿裤是根据印度人体结构而设计的，不会出现侧漏问题。”他说。

成人尿裤市场的MRP水平估计为35亿卢比，而婴儿用品市值超过550亿卢比。

“印度尿裤市场渗透率为6%，而中国为35%，因此存在巨大的增长空间。”Johari先生说。他表示，公司目标是到2019年尿裤日生产量达到200万片，而目前为100-120万片/天。产品主要出口到中东、非洲、中欧和美国。

私募股权投资公司里昂证券和Access Investment已对该公司进行了投资。成人尿裤市场在城市的年增长率为18-25%，而农村地区的增长率仅为2-10%。

随着人们对使用成人失禁垫意识的提高，现在许多家庭都愿意每月花费6000卢比在尿裤上，使老人和病人获得更高的舒适度。尿裤使老人在失禁时，可以获得自由，得到尊重。

(资料来源：“www.thehindu.com”)

美国赫曼公司重新定义成人擦拭巾

MoliCare皮肤擦拭巾不含甲醛

赫曼公司，一个为长期需要照顾的病人以及专业的陪护人员提供日常需求的产品和服务的提供者，更新了自己的提前预湿润的成人洗澡小毛巾方案来完善皮肤友好型尿失禁产品广泛的组合。最新的MoliCare皮肤擦拭巾已不含甲醛、不含防腐剂、低过敏性、富含镇定作用的芦荟汁和油脂，可以保持pH值在4.5到6.5之间，保证皮肤的健康。

美国赫曼公司的董事长兼总经理，Mark Lacerte说：“赫曼公司处于皮肤友好型尿失禁产品开发的前沿。考虑到这一点，这次改革将我们的擦拭巾成为Dignity and MoliCare生产线完美的伙伴。”

新型的MoliCare Skin擦拭巾在市场上已可见，并且开始替代现有的全国范围内分布链中的组合擦拭巾。

(资料来源：“www.nonwovens-industry.com”)

美国消费者擦拭巾市场每年增长2.5% 去年销售擦拭巾大部分都是个人护理用擦拭巾

在2016年，消费者擦拭巾市场占全球销售的56%。消费者擦拭巾的需求量有望以每年2.5%的速度增长，并且在2021年达到19亿美元的需求量。在2016年的消费者擦拭巾销售额中，个人护理用擦拭巾占到了

市场趋势

80%以上，同时，婴儿擦拭巾占到了个人护理用擦拭巾的大部分销售额。然而，考虑到婴儿擦拭巾市场的成熟度，在消费者擦拭巾领域，最快的增长速度和家庭护理用擦拭巾以及其他消费者擦拭巾的销售息息相关。这些和其他趋势在美国擦拭巾市场呈现，美国行业研究公司Freedonia集团的一个新的研究的第八版中进行了阐述。

在家庭护理擦拭巾中，32%的销售额与干擦拭巾相关，干擦拭巾主要是地板护理部分。在这一应用中，擦拭巾经常被用来在不适用溶剂以及表面活性剂的情况下，清理轻质灰尘，比如粉尘和少量的污垢。

个人护理用擦拭巾市场的几个组成部分的市场份额有很大的不同，取决于市场份额是以价值来衡量的还是以体积来衡量的。以体积衡量的话，婴儿擦拭巾在2016年的个人护理用擦拭巾市场占82%，而以价值来衡量的话，婴儿擦拭巾仅占到67%的份额。

(资料来源:“www.nonwovens-industry.com”)

全球尿裤市场的最新研究

尿裤市场有望在2021年达到799.4亿美元

根据Technavio最新的关于市场调查的消息，全球尿裤市场将在2021年达到799.4亿美元的市场，以接近6%的年复合平均增长率增长。题目为“2017-2021全球尿裤市场”的报告就收入和新兴市场趋势方面提供了一个深入的分析。这个市场研究报告包含了各个市场以及各个地区最新的数据分析以及预测。

发达国家在尿裤市场占有很大的份额。然而，由于用即弃产品逐渐增加的收益，发展中国家似乎在接下来的几年中经历一个相当大的增长。在可预见的阶段，用即弃的尿裤将成为巨大的市场份额。

Technavio的零售以及顾客研究分析将全球尿裤市场根据产品分为以下几个部分。分别是：

- 婴儿用即弃尿裤
- 婴儿训练尿裤
- 婴儿布尿裤
- 婴儿游泳裤
- 婴儿可降解尿裤
- 成人护垫型尿裤

- 成人平面型尿裤
- 成人拉拉尿裤

全球尿裤市场的前三类产品如下：

婴儿用即弃尿裤

由于其使用方便和卫生的特点，即弃型尿裤份额是市场中使用最广泛的类别。影响因素，例如双收入家庭的增加以及对婴儿卫生护理意识提高，影响着很多的消费者去选择用即弃的尿裤。这些尿裤有不同的品种，如强吸收、超吸收和环境友好型。

根据Technavio的一个领先的零售品牌以及服务研究分析师Sharan Raj说：“由于越来越多的顾客渴望尿裤可以保证他们孩子皮肤的干燥，不会起疹子，对于环境友好型和高吸收型尿裤的需求也越来越强烈，一些环境友好型的用即弃尿裤品牌包括Bambo Nature、Nature Babycare、Broody Chick、Attitude和Poof Diapers。”

婴儿训练用尿裤

训练用尿裤或者训练裤主要用于帮助孩子的上厕所训练。这些尿裤和正常的尿裤一样穿着，用来提高婴儿的独立性。它的一些主要的特点包括双边灵活，防止泄漏以及湿度指示。这种尿裤越来越流行，并且被广泛的运用于帮助孩子从尿裤转换成洗手间。一些很有名的婴儿训练尿裤品牌包括Huggies Pull-Ups、Pampers Easy Ups、The Honest Company训练用尿裤和Potty Scotty二合一防水训练裤。

婴儿布尿裤

布尿裤是由人工合成材料，天然纤维或者两者的结合制造而成的可重复利用的尿裤。这些尿裤通常是由工业棉制成，其他的天然纤维包括羊毛、竹纤维和原色大麻。人工合成的纤维包括聚氨酯复合材料和聚酯织物。

Sharan说：“布尿裤是低价的，可重复利用的和环境友好型的产品。由于它们不含任何化学添加剂，因此它们对于婴儿的皮肤很安全。正是由于这些产品的低廉的价格，使得它们在大部分的发展中国家很流行。同时，他们颜色和设计多变，这些都使得他们更加容易被接受。”

(资料来源:“www.nonwovens-industry.com”)

市场趋势

新型持久亲水型聚乳酸非织造材料技术，应用于吸收性卫生产品，提供比聚丙烯更优质的流体管理

新型亲水系统为非织造材料量身定制的独特化学整理，改善流体管理，持久并透气

2017年10月5日明尼苏达州的NatureWorks公司宣布开发一种持久亲水性方案，通过改进流体管理，增强透气性从而增进皮肤保健，用于尿裤、成人失禁和女性卫生产品等吸收性卫生领域。聚乳酸基材的非织造材料和定制化的表面处理相结合，用于尿裤面层，可使超吸收聚合物（SAP）或木浆的使用量减少高达30%，使产品更薄、更舒适，同时更具性价比优势。

NatureWorks首席科学家Aman Kulshrestha博士表示：“这一聚乳酸非织造材料的创新技术在流体管理方面比聚丙烯材料提供了更高的性能，这是提供卓越皮肤保健的关键。“新系统的多功能性可以让制造商创造新结构并使其产品脱颖而出。”

Kulshrestha总结了新型持久亲水聚乳酸非织造材料系统的优点：

- 聚乳酸非织造材料表面活性可以通过专业设计局部处理，通过改进穿透、再湿润和流量指标增强流体管理。
 - 增强持久性/耐久性，减少了非织造材料所需的局部处理量，减少了冲刷。
- 在尿裤中，使用这种聚乳酸非织造材料系统作为顶层可以增加吸收芯体的功效，使超吸收聚合物（SAP）或木浆使用量减少高达30%。
- 减少老化，保持流体管理性能，延长卫生产品的保质期。
 - 由于聚乳酸有较高的水汽传递速率，改善了透气性。
 - 方便采用纺粘、熔喷或短纤工艺的生产。
 - 碳足迹较低的生物基材料

关键性能得到改善，优于聚丙烯材料

凭借这种持久的亲水技术，聚乳酸非织造材料在流体管理的关键对策中超过了常规的聚丙烯。流体通过新的聚乳酸非织造材料系统的速度更快，持液更持久，这通过渗透和流量来测量。这些非织造材料相比聚丙烯材料，可以更好抵抗再次润湿。与聚丙烯相比，材料所需的表面处理较少，降低了皮肤刺激的可能性。与聚丙烯相

比，新配方中的耐久性也更高，因为较少的表面处理被冲刷，表面张力仍然很高。（资料来源：“www.natureworkslc.com”）

宝洁增强尿片回收的力度

回收项目明年扩大到阿姆斯特丹

宝洁公司正在推进荷兰阿姆斯特丹的尿片回收业务。公司与阿姆斯特丹AEB合作推出了尿片回收计划，类似于宝洁子公司Fater在意大利已经实施的尿片回收计划。该计划将在明年会全面展开，每年可以回收约10000吨一次性废弃尿片材料。

据宝洁公司负责管理全球婴儿护理可持续发展推广的Ioannis Hatzopoulos先生透露，荷兰高度关注可回收有几个原因。垃圾填埋空间有限、地下水位较高增加了污染风险、自然资源有限。回收项目的目标是为所回收尿片的材料寻找新的用途，同时限制行业对垃圾填埋场和环境的影响的总量。

近期在葡萄牙卡斯卡伊斯举行的EDANA个人护理产品研讨会上，在资源管理展望中，Hatzopoulos先生阐述了宝洁公司最新的回收工作。Hatzopoulos先生表示，提升尿片的可回收性是宝洁的四点可持续发展目标的一部分，其中包括通过可再生能源为工厂提供动力，使用100%的回收材料，节约资源，促成废弃物零填埋。一次性尿片的使用寿命有限，从几十年前这些产品面世以来，它们对环境的影响一致是受到诟病的根源。

“尿片在家庭废物中的百分比正在增长，目前已经达到5-10%，是不回收生活垃圾中非常明显的一部分。”他补充说：“我们的客户的顾虑一直困扰着我们继续去研发用即弃产品。”

自2015年以来，宝洁公司通过与Gruppo Angelini的合资子公司Fater已经参与了意大利的尿片回收。八月份，Fater公司回收规模实现了工业化，取代了之前中试规模。像阿姆斯特丹计划的那样，这项新业务每年可以回收10,000吨的吸收性卫生用品，影响大约一百万人。

据Hatzopoulos先生介绍，回收处理首先从产品中去除人体废物，然后将尿片材料分

市场趋势

成三种废物流：超吸收材料、混合塑料和木浆。最后这些材料找到新用途，为公司创造新的收入来源。

阿姆斯特丹地方当局正在资助回收业务，希望能缓解尿片行业对环境的压力。包括尿片在内的大量废物在荷兰被焚烧，但回收利用是一个更好的选择，因为它减少温室气体排放，并为回收材料创造了新的生命。

作为荷兰基础设施部门一部分的Rijkswaterstaat Environment，废物和材料高级顾问Geert Cuerus也在Outlook上发表了讲话，指出在尿片供应链中，回收是真正闭合循环的唯一途径。他还表示：“使用原料时需要在同一水平复原和更换材料，使焚烧在这种经济体制中难以立足。这就是有些原材料的生命终结。”

宝洁公司在欧洲的回收工作部分由拥有13个合作伙伴的欧盟资助财团资助，以促进吸收性产品的回收利用，并寻找将其转化为更高价值的材料的方法，如肥料和生物塑料。从基于工业的生物事业部得到了资助，这是一项公私合作项目。
(资料来源：“www.nonwovens-industry.com”)

三家汽车部件供应商成立合资企业

欧拓公司，日本特殊涂料会社和丰田纺织将研究汽车隔音材料

欧拓公司和日本汽车产品供应商日本特殊涂料会社及丰田纺织已经同意成立汽车声学研发的合资公司，并签署了相应的协议。本次合作经监管机构批准，预计将于2018年1月开始。为丰田纺织及其它相关企业进行声学研究的合资企业，将在欧拓公司的科学引领下接受日本管理。未来，客户将受益于瑞士创新领导者的专业知识及其日本合作伙伴的采用NV基准（噪音、振动）新车型前期开发，在车辆开发中使用计算机辅助设计定制声学系统。为了保证最高标准，欧拓开发的测试系统和仿真软件将部署在位于日本丰田纺织的声学中心。

50多年来，欧拓和日本特殊涂料会社已经成功合作，在全球为日本OEM厂商供应在声学和热管理方面创新的轻量化组件。他们在全球共同经营七家合资企业。未来为丰田与丰田纺织（内饰系统的领先制造

商）的声学开发，将有助于三大汽车产品供应商进一步扩大自2012年以来在汽车内饰系统领域的合作。

(资料来源：“www.nonwovens-industry.com”)

奥斯龙公司介绍柔软的SMS手术衣面料

TenderGuard非织造材料兼具安全性、柔软性和舒适性

奥斯龙已经推出了Ahlstrom TenderGuard，一种用于手术服的新型柔软SMS材料。奥斯龙的TenderGuard提供了安全性，柔软性和舒适度之间的最佳平衡。这款多功能柔软SMS面料设计舒适。材料的优点是悬垂、触感舒适、重量轻。我们承诺材料的安全且舒适，让外科医生、护士和临床医生穿着感到舒适，使他们在手术过程中专心投入。

Ahlstrom TenderGuard是一种高性能，高性价比的医疗服装材料，和常规处理后的SMS材料的防护等级相同，却具有更好的舒适感。公司称，产品的柔软度和舒适度与水刺非织造材料相当，其附加优点是低克重和更好的防护作用。

(资料来源：“www.nonwovens-industry.com”)

可冲散湿巾—继续战斗

随着污水处理行业发布自己标准版本，湿巾制造商继续致力于消费者培养

湿巾行业继续进行着可冲洗湿巾的防御战。十多年来，行业利益相关者开始正式解决围绕湿巾的负面评价，设计可冲散湿巾，并且还将继续应对诸如不实之词及可冲散湿巾造成了世界各地下水道系统损失数百万美元等负面消息。

INDA总裁Dave Rousse说：“这场战役从四个战线展开，立法、法规、诉讼和宣传。我们在这些方面都取得了一些胜利，但仍然面临挑战。”

湿巾行业在立法斗争中持续取得长足进步。联邦贸易委员会已经两次停止了关于可冲散湿巾广告的调查，没有发现目前市场上有产品未能达到其宣传的性能。

从法规的角度来看，湿巾行业继续与华盛顿政府合作，去年通过的法案中，在语言规则方面要求湿巾达到某些标准，才能宣

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称为可冲散。同时，在提案者看到了业界制定的标签要求的最新实践规则之后，纽约市议会似乎失去了法规制定的优先权，此前，也有类似的措施可供讨论。

在诉讼方面，可冲散湿巾行业在八月份取得了一场胜利，当时，爱荷华州的一名法官宣布庭外和解在爱荷华州Perry市发生的关于指控可冲散的湿巾制造商带来所谓危害的集体诉讼。Perry市放弃诉讼，承认自从2015年诉讼案件提交以来，就没发生过任何由于可冲散湿巾引起阻塞或增加维修费用的事件。还承认，没有任何一个市民能识别出导致城市管道或污水处理系统阻塞的可冲散湿巾是来自于被控告的公司。值得注意的是，Perry市同意撤销其诉讼，且无需任何赔偿。

2016年，Perry案中的两个被告公司（Sweeney V. Kimberly-Clark等）在佛罗里达州的另一起可冲散湿巾集体诉讼中取得胜利，消费者原告也同意放弃集体诉讼并无需公司作任何赔偿。

“Perry诉讼案中的和解条款证实，多年的试验和现场采集研究表明可冲散湿巾不会导致市政设施堵塞或增加维修费用。”Rousse说：“到目前为止，尽管有许多耸人听闻的头条新闻，但并没有任何废水处理机构的证据能够证明可冲散湿巾会导致堵塞或维修问题。”

最近的研究有类似的发现。在纽约市独立进行的采集研究发现，造成堵塞的内容物中超过98%的都不是被标记或设计为可冲散的产品，包括婴儿擦拭巾、表面清洁擦拭巾、纸巾以及其他垃圾。在缅因州和加利福尼亚进行的其他采集研究中也得到了类似的结果。

在这些胜利中，面临的巨大挑战可能是关于可冲散湿巾带来负面影响的相关报道，报道错误地指责产品会堵塞下水道，持续在当地和全国媒体上发表。Rousse补充说：“我们每周都做Google搜索，文章不断涌现。”

今年夏天出现了另一个挑战，即由污水处理行业利益相关者组成的国际废物处理可

冲散组织（IWSFG），该组织主要是致力于不适当的消费品排入厕所的问题。该组织提出了自己的标准，基于三个主要指标：湿巾必须快速分解成小块；不会漂浮着、不含塑料或再生纤维素；只含有在一定自然环境中容易降解的物质。

IWSFG于7月24日公布了这些标准草案，征询公众意见直到9月1日。最终的标准于9月下旬确定。

Rousse称这些标准矫枉过正。他说：“这个框架是可以的，但是通过或舍弃标准的方式太过分了。”他补充说，短暂的意见窗口期，对于那些在8月份大部分时间都在度假的欧洲利益相关者来说尤其不公平。

“我们认为，他们希望利用这些准则作为立法的模板，包括目前在华盛顿正在进行的立法”。

这个组织的形成是污水处理行业对可冲散湿巾行业发起的另一场战争。有一段时间，污水处理行业高管同意INDA和湿巾制造商合作制定的第四版“可冲散指南”（GD4），看起来好像停战了，但是在2017年1月污水处理行业退出了对话，关系恶化了。污水处理行业发函给INDA称，他们正在结束这些努力，因为自2016年5月以来没有取得任何有意义的进展。

根据INDA的说法，污水处理行业坚持的测试标准远比必要的更加严格。

INDA技术事务总监Jim Loftus表示：“如果可冲散湿巾行业接受站在旁边的污水处理行业制定的可能通过或不通过的标准，那么目前市场上所有的可冲散湿巾都不能通过这些标准。这意味着每片可冲散湿巾与污水处理系统都不兼容。可冲散湿巾行业是不会同意这些标准的。”

然而，合作确实有助于对非可冲散湿巾更新标签要求的实施规范。“我们已经与四个主要的污水处理协会联合成功地开发了一项新的实施规范，涉及市场上93%湿巾标签为非可冲散，其他7%被认为是可冲散湿巾。”Rousse说。

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“这表明当双方采取理性和合理的方式作出改变时是可以取得进展的。”

没有污水处理行业的合作，GD4指南的制定停滞了，但INDA及其合作方仍在努力。

“我们仍然相信，自上一个指南在2013年被制定以来，材料科学已经取得显著的进展，现在我们想更新指南来定义产品是否为可冲散。”Rousse说。

指南一旦完成，Rousse希望行业能继续提高厕所不是垃圾桶（TANT）的意识。

Rousse补充道：“唉，世界并不完美，我们正和一个愤愤不平，不愿意承认科学数据的污水处理部门打交道。”

他补充说，“非织造行业和污水处理机构之间的主要问题是未能就问题的定义达成一致。对于非织造布行业来说，问题在于当前不可冲散的材料（如婴儿湿巾、女性卫生用品和不可散纸巾）的不适当的冲入厕所，处理机构则认为存在的问题在于不合格的可冲散湿巾的不适当的丢弃以及消费者混淆可冲散产品和不适当丢弃的问题。”

他说：“污水处理行业仍然对这个指南感到不满。他们说没有取得任何进步，但事实上著名的污水处理高管审查了GD1和GD2，并提出改进的建议，才制定了GD3。”

就目前而言，该行业仍然停留在GD3，Rousse认为它是科学的。“没有证据证实过符合GD3要求的湿巾造成对下水道的阻塞，但GD3不再是当今可冲散湿巾的最低性能要求。我们可以超越GD3，但是我们还没有更新指南来反映我们行业在材料科学方面取得的进步。”

热门话题

INDA可冲散工作组继续通过多个委员会专门应对面临的诉讼、立法和几乎每天的媒体攻击，这些攻击指责可冲散湿巾在美国和全球造成下水道问题，而实际上可冲散湿巾的作用是减少下水道堵塞（根据数据分析，自2010年以来从7%下降至2%），尽管这些材料的销量正在增加。

“这确实有可能显示出一种趋势，可冲散湿巾数量增加了而婴儿湿巾保持不变，但是堵塞物更多是婴儿湿巾，可冲散湿巾很少，所以问题是什么。”Loftus说。

INDA努力的中心是进行消费者培育，帮助减少如婴儿湿巾等非可冲散物品往马桶里丢弃的数量。更新的实践规范包括新的标签要求，不仅要求在不可散湿巾的外包装上要突出不可冲散标志，还要求在使用时有相同的标志。而且，不仅仅是婴儿湿巾，其他产品不管分散能力如何，都可以上市销售并贴上是否可以冲散的标签，希望这样能够减少消费者对产品是否为可冲散的困惑。

事实上，INDA承认婴儿湿巾不适当的冲入丢弃是一个越来越大的问题。纽约地铁最近的一项分析显示，从七年来的分析结果来看，38%的阻塞物是不可冲散的婴儿湿巾。

Nehemiah Manufacturing公司总裁兼可冲散性沟通委员会的代表Richard Palmer说：

“许多人正在冲入丢弃婴儿湿巾，但却指责可冲散湿巾，这是无法解决问题的。事实上，限制对消费者供应可冲散湿巾，只会鼓励他们使用和冲入丢弃更多的婴儿湿巾。”

为了帮助解决这个问题，INDA及其合作伙伴已经形成了“有责任感冲入丢弃联盟”组织，以提高消费者对产品可否冲散的意识。他补充说：“个别公司应该利用他们的营销资源和公共关系资源来分享这些信息，因为这是我们作为一个行业做得不够好的工作。”

（资料来源：“www.nonwovens-industry.com”）

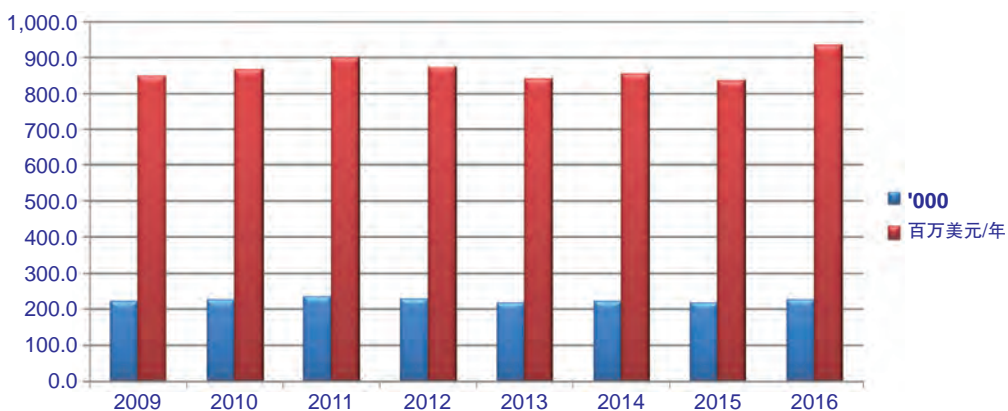
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此外，无锡安德里茨工厂提供了一流的工业规模针刺生产线，包括梳理机、交叉铺网机、预针刺机和针刺机。试验线为非织造布生产商提供了在上市前在实际生产条件下对新开发或改进的产品进行试验的机会。

2016年韩国 非织造材料 产量

韩国非织造材料产量 (2009~2016)

	2009	2010	2011	2012	2013	2014	2015	2016
千吨	220.2	224.9	233.2	226.2	217.1	221.3	216.2	225.5
百万美元	847.0	865.0	897.8	872.0	837.1	853.1	833.2	932.3
美元/千克	3.85	3.85	3.85	3.85	3.86	3.85	3.85	4.13



2016年印度 非织造材料 产量

印度非织造材料产量 (2012~2016)

资料来源: BCH



	2011	2012	2013	2014	2015	2016
针刺	59.6	75.0	85.3	90.5	96.5	114.1
水刺	13.0	19.6	19.7	25.0	25.5	30.9
纺熔	106.2	120.0	138.7	152.7	175.0	202.1
其它 (化学粘合/ 热粘合/湿法成网等)	7.5	8.0	8.8	9.0	15.0	18.0
合计	186.3	222.6	252.5	277.1	312.0	365.1



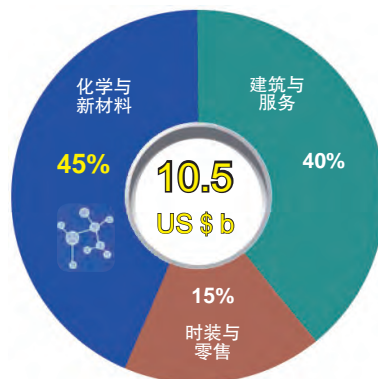
可隆的不织布

Jin-II Kim 博士
中央研究院
可隆工业株式会社

简介

54年	创建	可隆开始进入韩国化学纤维的时代 · Kaemyeong公司创建于1954年 (可隆集团的创始公司) · 第一个公司, 生产尼龙	 = KOREA + NYLON
60年代~70年代	成长期	全面的化学纤维制造商 · 韩国首家尼龙制造商, 最大的聚酯纱制造商	
80年代	业务多元化	拓展新业务 · 石化工业, 建筑, 金融 · 电子材料, 新型合成纤维等	
90年代	集聚	专注于3个主要业务领域 · 化学与新材料, 建筑与服务, 时装与零售	
21世纪	新的增长	寻找未来发展的引擎 · 水能源, 生物/健康, 汽车部件/计算机与通讯	下一步是什么?

105亿美元来自三个主营业务



- 可隆科技特株式会社 (BMW/B&O)
- 可隆保健株式会社

未来增长的引擎

- 水务
- 能源业务
- 生物业务
- 汽车部件/IT

大趋势



化学与新材料 (45%)

- 可隆工业 (制造部分)
- 可隆科技特株式会社 (材料部门)
- 可隆时装材料株式会社
- 可隆生命科学株式会社
- 可隆塑胶株式会社
- 可隆制药株式会社
- NeoView 可隆 (涉及材料、生物、汽车、OLED等)

建筑与服务 (40%)

- 可隆工程与建筑
- 可隆水务能源株式会社
- 可隆国际株式会社
- 可隆科技特株式会社 (休闲部门)
- 可隆贝尼特株式会社
- 可隆投资

时装与零售 (15%)

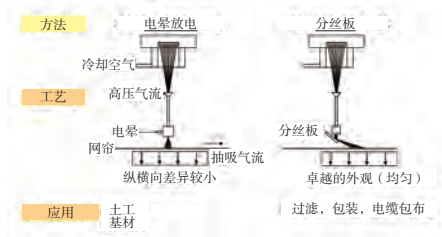
- 可隆工业株式会社时装部门

Finon® - 聚酯纺粘不织布

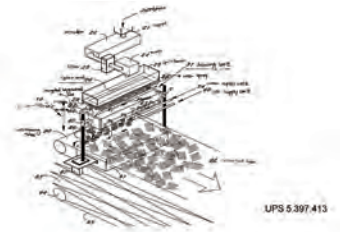
纺粘技术



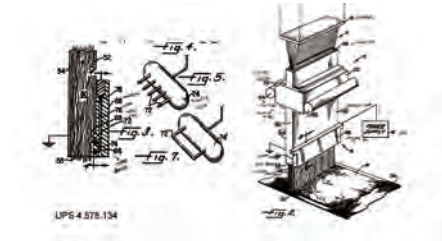
技术信息



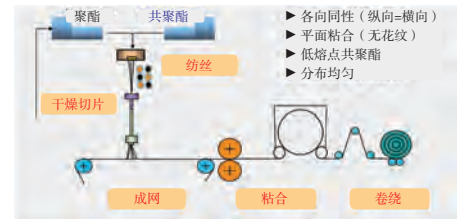
结构紧凑



纤网分布均匀 (电晕)



新开发的聚酯纺粘不织布 (可隆公司专利技术)

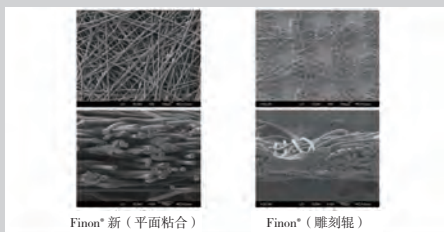


► 各向同性 (横向=纵向) & 更高的强度

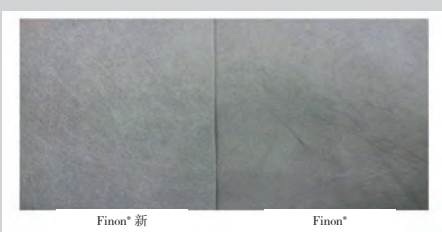
100gsm (纵向 / 横向)

	Finon® (新)	Finon®	KS K 0520
共聚酯	低于 200	230	°C
抗张强度 (总体)	38 / 38 (76)	35 / 14 (49)	Kg / 5cm (增加 55%)
纵向 / 横向	1.0	2.5	
撕裂强度 (总体)	7.5 / 7.5 (15.0)	5.5 / 5.4 (11.4)	Kgf (增加 31%)

► 平面粘合 (无花纹)



► 分布均匀 (CV%)



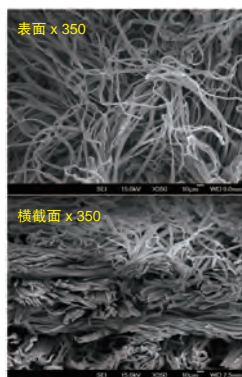
► 应用



超细纤维纺粘



可分裂的长丝 (双组份)



► 应用



技术信息

Heracron® - 聚对苯二甲酰对苯二胺 (对位芳纶, 简称PPTA)

高性能纤维的物理特性

	聚对苯二甲酰对苯二胺 (对位芳纶, 简称PPTA)	聚间苯二甲酰间苯二胺 (间位芳纶, 简称PPTA)	尼龙 66	玻璃	钢
密度 (g/ml)	1.45	1.38	1.14	2.55	7.8
强度 (g/d)	23	5	9	11	11
模量 (g/d)	950	140	50	320	220
应变 (%)	3	22	20	3	5
温度 (°C)	250	250	150	350	500

► 聚对苯二甲酰对苯二胺 (对位芳纶, 简称PPTA)

* 更高强度 * 更高模量 * 更高热稳定性

聚对苯二甲酰对苯二胺 (对位芳纶, 简称PPTA) 纤维 (应用)



■ 短纤维

旦数 1.5 ~ 4.0

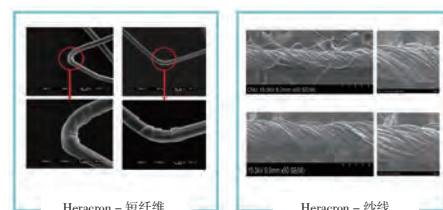
长度 (10) 35 ~ 75 mm



支数 10's~60's

100% Heracron

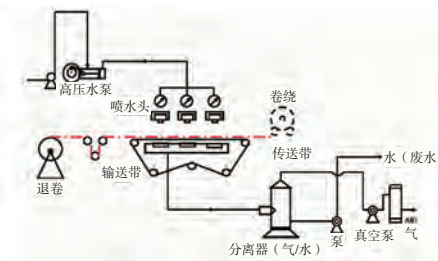
纤维和纱线的电子显微镜图片



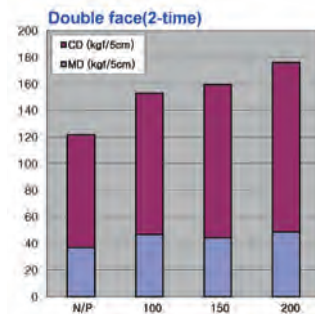
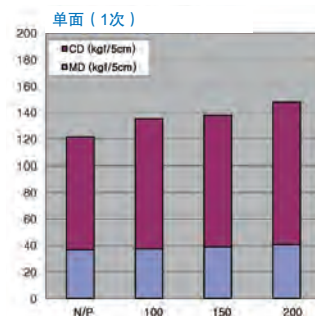
不织布 (针刺)



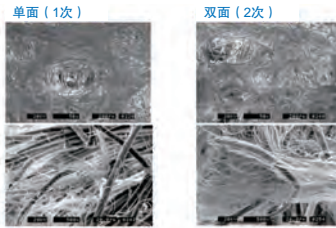
不织布 (水刺)



► 水刺的抗张强度 (200gsm)



技术信息



应用 (防火) - 针刺



烧伤程度 (没有被观察到)

应用 (防火) - 水刺



烧伤程度 (没有被观察到)

Finocell® - 聚酯熔喷

什么是血液过滤器?

白血球滤除过滤器可选择性地去除白血球, 白血球也被称为血液白细胞。

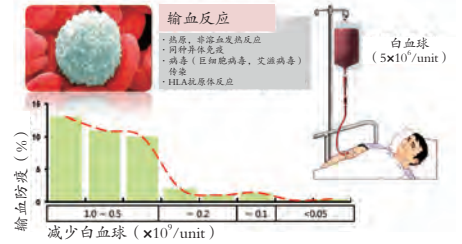
全血
白血球 (100%)
 3×10^9

过滤前

过滤后

99.9% ↑ 去除

为什么它是必要的?



血液过滤器的构成



广阔的全球市场

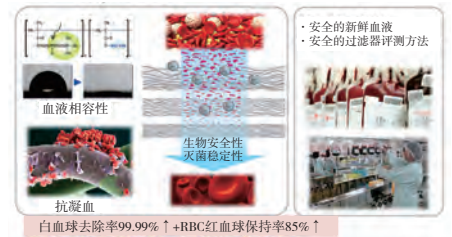
1亿韩元

市场分类	2013	2015	2020	复合年增长率
血液过滤器	14,028	15,727	20468	5.5%

血液过滤器市场

- 推进医疗服务 (医疗福利)
 - 输血反应增加
 - 去白血球输血的增加
- 平均年增长率 5.5%

主要开发内容



总结

- * **Finon®** - 高性能的聚酯纺粘不织布
 - 各向同性 (专有技术)
 - 平面粘合 (无花纹)
 - 应用广泛
 - * **Heracron®** - 聚对苯二甲酸对苯二胺 (对位芳纶, 简称PTAA) 不织布
 - 针刺和水刺
 - 特殊应用 (工业用服装)
 - * **Finocell®** - 医疗过滤器
 - 安全输血 (降低白血球)
- (资料来源: "ANFA会议论文集", 本文已节选)

技术发展趋势

原材料帮助非织造材料生产商实现他们的目标

聚合物，处理剂和添加剂的创新为基材技术提供了新的可能性

AGC开发医用非织造布的拒斥剂

手术衣，口罩，窗帘和包装等医疗产品必须能够拒斥液体，油和酒精，并在洗涤时迅速释放污渍。这些性能通过在制成衣服之前用拒斥剂涂层非织造材料来实现。然而，拒斥剂有可能分解形成全氟辛酸（PFOA），所以他们存在可持续性发展的问题。为了解决这个问题，AGC Chemicals Americas开发了Asahi Guard AG-E600，这是一种高性能、具有改进的环境和生物特征、不含PFOA的拒斥剂。

AG-E600拒斥剂可以安全有效的用于非织造医疗产品。其基于AGC已取得短链C6聚合技术专利，无毒且不会分解成PFOA或全氟辛烷磺酸（PFOS）。此外，AG-E600不含烷基酚乙氧基化物（APEO），也不含更长链的全氟羧酸（PFCA）或其前体。

AG-E600具不燃性，为聚丙烯非织造材料提供优异的拒酒精/拒油和防水性，与助剂相容性好。用AG-E600配制的医疗产品通过反复洗涤来保持其拒斥性能。

Americhem为非织造行业提供新型原材料

Americhem最近在非织造市场开发了一种新型的mBrace软化添加剂。除了初始的mBrace软化剂组之外，通过减少摩擦系数或滑动达到制造商理想的柔软度。目前正在开发的新类型原材料赋予了棉质品感与纺织品感。该产品热稳定性好，有助于制造商在保证柔软触感时而不影响其他材料性能。使用灵活性提高，可根据制造商的具体要求进行定制。允许用户在确保最佳柔软度，同时消除对加工条件的任何影响。

mBrace技术的两个产品组都可以与其他添加剂和颜色结合在母粒中。在欧洲提供的所有mBrace产品都符合REACH法规，产品有各种包装选项。

Americhem为非织造材料生产商提供新的定制彩色母粒。越来越多的品牌和产品颜色变得至关重要。Americhem让生

产者有能力为自己的产品添加自定义颜色。这些定制颜色也可以与一种或多种添加剂组合，方便不同剂量和库存控制。Americhem利用其在室外产品方面的专长来生产对紫外线稳定剂的nDuramax，对于任何室外应用的非织造产品都至关重要。

Archroma提供颜料和特殊化学品

全球颜料和特种化学品领导者Archroma为纺织厂和非织造材料制造商提供广泛的解决方案。特色亮点包括：高性能的Printofix TF色素制备，Archroma的非卤化Pekoflam系列防火剂；来自全氟辛酸（PFOA）的C6化学品Nuva到Smartrepel Hydro系列和涂层包装方案的拒斥性和释放性，将Appetan, Lurapret和Texapret聚合物与Archroma的颜色和整理专长相结合。欧洲药品管理局高性能纺织品专业和技术服务品牌负责人Miquel Vila表示：“产品反映了Archrom可以提供负责任的产品和解决方案，强调基于公司核心理念——不断挑战现状，深信可以使行业保持可持续发展。”

BASF推出水性丙烯酸粘合剂

Acronal 2434满足高温稳定性要求，BASF为非织造材料推出了一种新的水性丙烯酸粘合剂。粘合剂特别适合用于建筑和磨料应用的非织造材料。这一创新粘合剂补充了BASF的综合性粘合剂和树脂产品系列。

Acronal 2434是一种自交联丙烯酸分散体，可以使非织造材料暴露于机械稳定性的热应变高水平。粘合剂适用于合成纤维（如聚酯）制成的非织造材料，与其它交联体系（如三聚氰胺和尿素树脂）相容。它也可以应用于常规的排污系统。

“Acronal 2434是我们在非织造材料行业为客户提供的另一种高性能粘合剂，”粘合剂和纤维粘合剂欧洲分散体副总裁Jürgen Pfister说。“首先，当涉及到暴露于高水平的热和机械应变的非织造材料时，我们的新型丙烯酸分散体具有出色的效果。通过这种创新和可持续的活动，我们找到了一个针对客户需求的解决方案。这样，我们可以帮助客户取得成功。”

Eastman微纤维提供多样性

已经开发的EastmanCyporex微纤维，以满

技术发展趋势

足越来越苛刻的非织造应用的各种性能需求，特别是湿法非织造材料和特种纸生产商可以从改进的强度、均匀性和再现性中获益的那些性能需求。客户特定的研发正在应用于各种潜在的用途，包括但不限于过滤，包装，高耐用性纸，墙纸和电池。

自从2013年首次推出以来，Eastman通过配合世界一流技术和专有超细纤维工艺持续发展，不断拓展其Eastman Cyphrex超细纤维产品组合，并通过非织造材料和特种纸价值链的外部市场连接获得需求和意见。这种技术使微纤维包括尺寸、形状和材料进行独特组合。

在非织造行业内需要创新，推动客户不断寻求投入新的材料，从而在产品中获得差异化的性能，而不需要进行较大的操作改变。

在推出具有不同尺寸的圆形微纤维的Eastman Cyphrex微纤维平台之后，特别是Cyphrex 10001和Cyphrex 10002（最初针对过滤应用），与非织造行业领导者进行的持续对话表明，需要一种合成纤维，其可以与具有高含量的纤维素纸浆的材料、即所谓的特种纸相兼容。

Exxon扩大聚合物范围

Exxon美孚化工已经推出了用于卫生和热熔胶装配的新型低粘度Vistamaxx聚合物。Vistamaxx 8780和8380等级扩展了于2015年上市Vistamaxx 8880的粘合剂应用选项。这三种低粘度聚合物可以配制高性能、低气味、低密度热熔胶，用于包装、卫生和组装应用。基于Exxon美孚专有的茂金属技术，Vistamaxx聚合物可以开发出新一代低气味、颜色极浅，优质的热熔胶配方，以提供无忧应用的各种产品。

Vistamaxx 8380也非常适用于包装应用中的热熔胶，如木材，层压和汽车等应用。与基于无定型烯烃聚合物（APAO）和醋酸乙烯酯（EVA）的配方相比，它具有改善粘合性和耐热性，同时提供低气味和颜色极浅的热熔胶。制剂可以得到70-90%的聚合物负载量，导致较低的密度和为装配胶粘剂消费者作为附加值更高的里程碑。

Vistamaxx 8880非常适用于包装盒和纸箱密封等包装应用。它使聚合物负载高达90%的配方，约为使用乙烯醋酸乙烯酯（EVA）或MCN-PE的配方的两倍。这导致的密度更低配方，可以提供附加值，因此较少的产品就能产生较大的粘力，从而可以用等量的粘合剂粘合更多的盒子。

Omnova装饰材料供应粘合剂，整理器

对于非织造材料，有很多因素影响纤维网和加固工艺的选择，包括加工效率，产品性能，应用需求，消费者需求和使用寿命。在做出这些重要决定时，Omnova的聚合物粘合和整理/表面处理技术提供了更大的灵活性。基于目前的挥发性原料情况，非织造加工商正在寻找使用不同纤维和聚合物的灵活性。在水刺擦拭巾中，混合原料通常由50%的吸收性纤维（粘胶）和50%的非吸收性纤维（聚酯或聚丙烯）组成，受制于原材料价格的波动以及目前的条件，许多擦拭产品已经降低了粘胶的比例，这会对吸收能力和柔软度产生负面影响。

然而，通过使用Omnova创新的SoftWick SF20后整理处理技术，擦拭巾生产者将能够减少粘胶纤维的数量并且可以实现类似的性能改进。SoftWick SF20将有助于提供更好的芯吸效果和利用其最大表面来改进擦拭巾的整体吸收能力。此外，SoftWick SF20将有助于实现手感的柔软度。在水刺擦拭巾生产中，Omnova的Sunbond粘合剂可以改善家用和工业擦布的湿拉伸强度。

此外，较软的产品和可持续的解决方案（环保意识）是吸收性卫生产品应用突出的趋势。由于全球供应短缺和相对产量降低，随着粘胶价格上涨，棉花在非织造布方面发挥重要作用。棉花比木浆和粘胶更强、亲水性更好。棉花因为其柔软度和环保性，是一种非常受欢迎的材料（特别是亚洲国家）。由于固结点越少，非织物强度越弱。热粘合，针刺和水刺不能证明可以为棉花含量高的非织物提供所需强度的有效加固技术。然而，聚合物粘合可能是更广泛地使用棉花的最有效的纤维固结技术。

（资料来源：“www.nonwovens-industry.com”）

产品集锦

Don & Low开发新一代肥料覆盖织物

Windrow TX 的轻质及可透气的特性适用于露天肥料装置覆盖物

Don & Low开发了新一代的肥料覆盖织物—Windrow TX。这个产品的开发和设计是James Hutton Institute (JHI) 公司最新的一个研究成果。这个研究强调了轻质、可透气覆盖织物的特性，符合露天肥料覆盖装置的要求，尤其是城镇地区的露天肥料覆盖装置的气味控制。

为最大限度的提高可透气性及耐久性，在聚丙烯 (PP) 中加入抗紫外线材料使得肥料的覆盖织物的重量达到150g/m²，Windrow TX 比常规肥料覆盖织物重量的1/3还要轻，为肥料产业提供了新一代的户外肥料堆积装置可透气性的覆盖物。

Windrow TX为户外堆肥点提供了最大的使用方便，因为它不仅具有传统的、厚重的肥料覆盖织物的保护特性，而且可由一个人进行操作。这种轻质的材料不仅可以降低气味，而且可以增加堆肥的产量和覆盖材料的耐久性。

为了量化使用Windrow TX的高效性以及附加值，在Forth Resource Management (FRM) 和JHI合作的堆肥点上进行了一个实验。

FRM的总裁，Tommy Dale说：“如果不用这种材料覆盖肥料，FRM发现它在Braehead堆肥点很难维持肥料的量。”

对于减少气味、粉尘和生物气溶胶来讲，选择合适的户外肥料覆盖物是至关重要的。同样的，为其提供针对太阳和风沙引起的干燥作用的有效的保护以及雨雪的防水保护也非常重要。Windrow TX可以为户外堆料装置提供这一类型的保护。

为了用于单层覆盖，Windrow TX在保证肥料透气的同时，为以防粉尘和活性微生物的释放提供了物理屏障。从外部来讲，这个轻质的覆盖物同时为阻止鸟类和昆虫提供了保护。

由于其充分的可回收性以及超强的减少气味的性能，Windrow TX是一个轻质的、节省成本的解决方案，它可以帮助遵守SEPA

(苏格兰环境保护局)和BAT(最好的技术)。

(资料来源:“www.convertingguide.com”)

提供含有羊毛的降噪天花板材料

Ahlstrom-Munksjo的声学材料能够提供优异的降噪和阻燃性

在产业用纺织品展上，新合并的Ahlstrom-Munksjo公司展示了一系列基于纺织品的解决方案，适用于建筑、过滤、家庭产品及食品包装。这些产品是公司独有的羊毛非织造布系列，使用湿法成网技术制成的天花板面板。利用天然纤维和合成纤维的选择和实施开发的专业知识，Ahlstrom-Munksjo创造高性能解决方案，旨在满足对客户降噪天花板的吸音和阻燃方面的关键需求。

羊毛经简单的切割，然后贴在面板材料的背面，不需要任何的抛光。这些羊毛和硅胶配合使用，能够减少噪音并为用户提供更好的声舒适度。

(资料来源:“www.hsengineers.in”)

Jones Nonwovens公司的FR技术成功

床垫中的热粘合非织造材料防火屏障可防止仓库火灾

Jones Nonwovens公司最近收到了关于床垫和家具行业的热粘合非织造防火屏障能效的证明。

Jones的防火材料是非织造建筑工程材料，保证最大厚度和舒适度。他们使用干净的白色作为基材。产品可以是多层或均匀的，这取决于客户对纯白色顶部的需求或不同类型纤维之间的独特混纺。

Kevin Portch，华盛顿州Grand Coulee的Loepp家具制造商，最近去看了他的仓库。该公司将其床垫存放在一栋较陈旧的建筑物中，该建筑物在靠近地板的墙壁上有多个加热器，床垫是放在自己工厂的塑料袋中，有送货人员经常抱怨在几个房间里有燃烧的气味。Portch几次进仓库，也闻到了这个气味。他试图找到原因，但失败了。他觉得可能是随着建筑的年龄，房间里的电线或照明有问题，但房间闻起来仍然有股像燃烧塑料的味道。

两天以后，一位销售员拉出一张床，读了

产品集锦

一张标签，发现床底看起来好像阴燃了好几天。塑料熔化了，床看起来好像都被烧着了。一名员工无意中打开了一台壁挂式恒温器，取暖器运行了。床垫本应该被烧着，并可能引起建筑物的焚毁，但是由于床垫内的防火技术，并没有引起火灾。

“我非常感谢Therapedic选择使用Jones Nonwovens公司的防火阻燃材料，将这种材料放置在它的产品中，” Portch说，“否则我将看到我的建筑物及我们库存的损失。”

销售总监肯尼·奥利弗（Kenny Oliver）表示：“生命安全产品一直处于Jones Nonwovens公司最显著的位置，这说明了我们在做我们想做的事情。”
(资料来源:“www.convertingguide.com”)

实验室用纺丝非织造设备

Nanoval公司在展览会上展示了一台实验室用纺丝非织造新设备。其结构紧凑，在改变纺丝工艺参数方面也非常灵活。适用于：

- 生产前测试新的原材料
- 评估新型聚合物的纺丝性能
- 优化纺丝参数及单丝细度及直径分布的变化
- 用于产品开发，对纤网成型和性能的具体调整

有关熔纺聚合物的范围，Nanoval提供了包括PP、PE、PA、PLA、PET、PBT和PPS在内的熔融纺丝聚合物的过滤介质纺丝系统。

对于溶液纺丝聚合物（lyocell/纤维素），Nanoval提供了由可持续利用的纤维制成的非织造材料纺丝系统，例如纸浆或溶解纸浆，棉绒或废纸。

经过团队10多年的开发，Nanoval已研发出新的纺丝工艺，替代常规熔喷非织造材料。该公司介绍，纤网的均匀性得到了很大的提高。在该专利的纺丝工艺中，许多单独的纺丝锥体中使用一个拉瓦尔喷嘴，技术独特，与长型的熔喷气槽相比，所需求的纺丝气流更少，因此降低了能量消耗。此外，长丝分布可以窄或宽；混纺微纳纤网（多旦网）到纺粘区域也是可能的；相对于熔喷非织造材料，Nanoval的非织造材料具有较高的强度和较大的延伸

率，并且实现高效低阻的性能。
(资料来源:“INDEX 17”)

手感柔软的非织造材料

土耳其的General Nonwovens公司是Imam kayali控股集团的成员，在展览会展示了其非织造材料全系列产品，以及最新研发的100%聚乳酸（PLA）纺粘及热风非织造产品，手感柔软。该公司生产非织造材料已经有十多年。在此期间，随着非织造产品供应的扩大，公司在土耳其的运营已扩展至两家工厂。

General Nonwovens公司旗下的HyGen品牌产品被广泛应用于卫生领域，包括表层、底层、导流层、腿袖口、前耳和芯层，这样一款非常柔软触感的热风粘合产品也同样适用于要求柔软的高端一次性产品。

除了HyGen品牌，General Nonwovens公司还生产FilterGen品牌的过滤产品，TexGen涂层及叠层材料，以及家用纺织品，AutoGen车用产品，IndiGen工业用和产业用纺织品。

(资料来源:“INDEX 17”)

(<<< 上接31页)

随着东丽集团华南非织造布项目的落户，中国医卫用非织造产品示范基地实现了“全球第一、全亚洲第一、全国十强”医卫用非织造布企业的三级架构，奠定九江镇高端医卫用非织造产品行业的全球重要、全国领先地位。

强化两大产业平台招商引资

优质项目相继落户九江，离不开精准到位的招商引资。近年来，九江镇明确了“北业南城西园”的产城定位，立足“中国医卫用非织造产品示范基地”和“临港国际产业社区”两大产业载体，加大医卫用非织造布及其关联产业、装备制造业的招商引资力度，不断提速产业转型升级。

随着东丽集团华南非织造布项目的落地，夯实了中国医卫用非织造产品示范基地的高附加值和全产业链“双价值”产业链，预计在未来2-3年，可成为产值达200亿元的世界级高端医卫用非织造产业集聚基地，构筑“尖端新材料”产业蓝图，不断提速产业转型升级、精耕细作铸品牌。

非织造布机械设备 NON.WEAYEN CLOTH MECHANICAL EQUIPMENT



垂直式混开棉机组
Vertical mixing opener



ASBG003气压自动棉箱
ASBG003 Air auto hopper



ASBG091梳理机
ASBG091 Carding machine



ASBG215系列梳理机
ASBG215 Carding machine



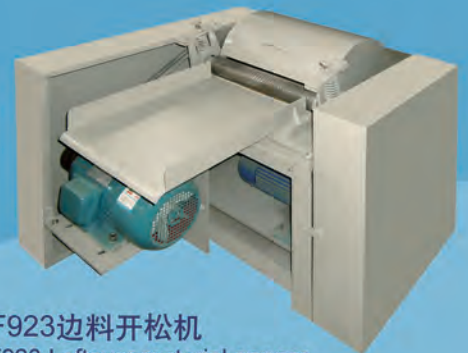
ASBG401高速铺网机
ASBG401 High-speed cross lapper



ASBG939大仓混棉箱
ASBG939 Large bin hopper



直列式混开棉机组
In-line mixing opener



WF923边料开松机
WF923 Leftover material opener



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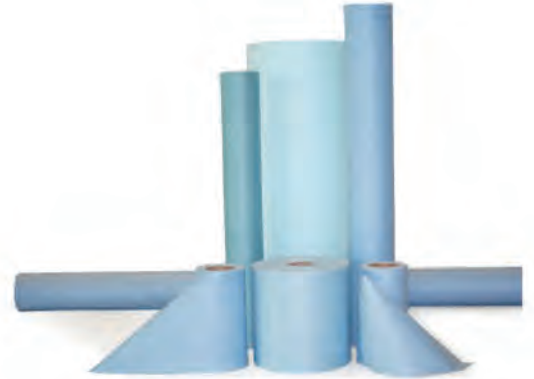
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