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TB2400透气涂布复合设备  
TB2400 Breathable Coating Lamination Machine

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TB2100 Breathable Coating Lamination Machine



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适用范围:  
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Application:  
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# 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



热风生产线  
HOT AIR PRODUCTION LINE

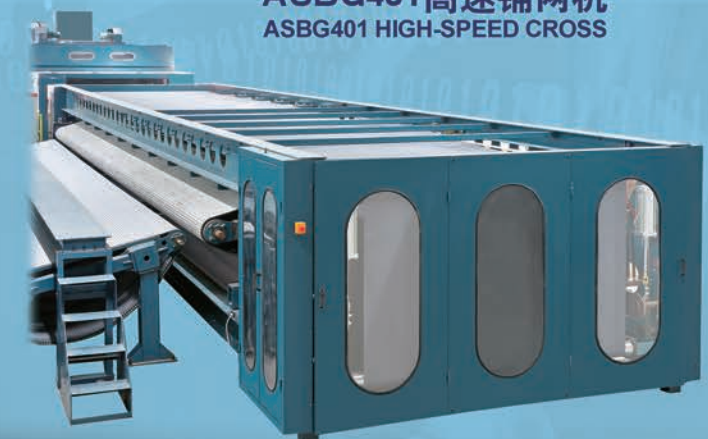


超宽幅造纸毛毯生产线——最大宽度可达14米  
SUPER WIDE PAPER MAKING FELT PRODUCTION LINE - 14M (MAXIMUM WIDTH)

ASBG003气压自动棉箱  
ASBG003 AIR AUTO HOPPER



ASBG401高速铺网机  
ASBG401 HIGH-SPEED CROSS



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**高速梳理机**  
High-speed carding machine

机器宽幅: 2.5M、3.0M、3.8M  
Machine width: 2.5M, 3.0M, 3.8M  
出网速度: 可达150M/min  
Output speed: up to 150M/min

适用范围: 针刺、水刺、热风无纺布  
Application: Needle Punching, spunlace, air through fabric



**热风定型机**  
Hot air setting machine

机器宽幅: 2.5M、3.2M  
Machine width: 2.5M, 3.2M  
有效烘区: 3M×n单元  
Drying zone: 3M×n unit  
生产速度: 可达150M/min  
Production speed: up to 150M/min

适用范围: 热风无纺布、无胶棉、过滤棉、热熔毡  
Application: Air through fabric, non adhesive mattress, filter media, thermal bonding fabric

120M新型热风无纺布生产线

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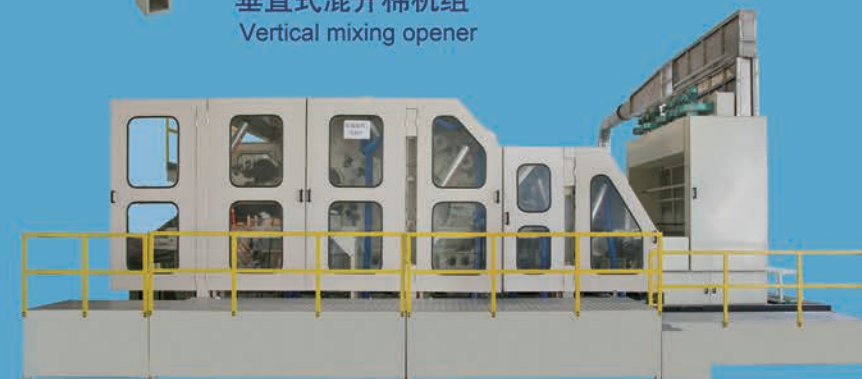
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**高效水刺机组**  
High-efficient spunlace units

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Machine width: 2.5M, 3.5M  
生产速度: 可达180M/min  
Production speed: up to 180M/min

适用范围: 各种水刺无纺布  
Application: all kinds of spunlace  
nonwoven fabric



**高速针刺机**  
High-speed needle loom

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  
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针刺频率: 1200n/min、1600n/min  
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汕头三辉无纺机械厂有限公司成立于2001年8月，总部位于广东省汕头市，在揭阳高新区建有占地10万m<sup>2</sup>的广东三辉无纺机械有限公司新厂区，为国家高新技术企业、广东省民营科技企业、广东省守合同重信用企业、汕头市战略性新兴产业重点培育骨干企业、汕头市装备制造业重点企业，拥有广东省无纺机械（三辉）工程技术研究中心、汕头市企业技术中心等科研机构，是《针刺机》、《针刺法非织造布生产联合机》等行业国家标准起草单位，为科技创新型企业。

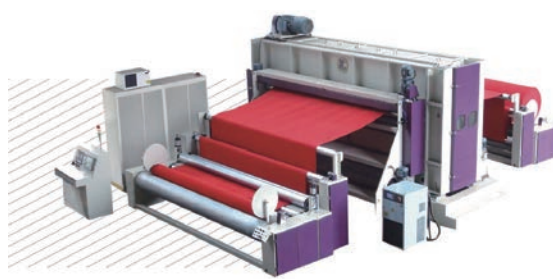
公司坚持“工艺主导、联通产研，科技创新、引领行业”的研发方针，承担多项国家、省、市科研项目，获得国家、省、市科技进步一、二、三等奖，拥有如“宽幅高频起绒针刺机”等一批具有自主知识产权的高新技术产品，多项技术填补国内行业空白，处于国内领先国际先进水平。自主研制的针刺法非织造机械有八大类50多个品种，主销国内高端市场，并已出口欧亚等地，可提供产品定位、工艺制定、设备选型、安装调试、人员培训、设备保养等交钥匙工程。

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Wide Width High Frequency Needle Punching Machine

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



(双针板) 高频起绒针刺机组  
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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

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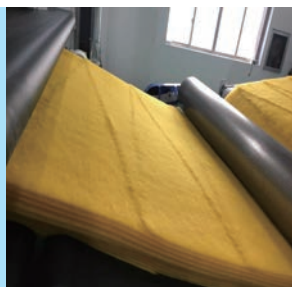
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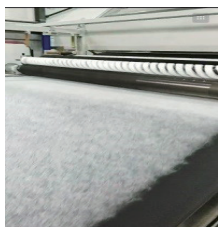


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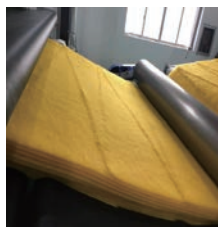




## Business News



ANDRITZ CA21C cards



ANDRITZ Active III crosslappers



High-performance ANDRITZ needlepunch line

### ANDRITZ successfully starts up a new needlepunch line at Zhejiang Yubang, China

GRAZ, APRIL 26, 2019. ANDRITZ has successfully started up a new neXline aXcess needlepunching line supplied to Zhejiang Yubang Filter Technology Co., Ltd., based in Haining, Zhejiang Province, China. This line is fully dedicated to the production of high-quality, needlepunched filter felts made from a large variety of fibers such as PI, PPS, P84, and aramid.

The main equipment was supplied by ANDRITZ (China) Ltd., Wuxi branch. The smooth and on-time project execution as well as the efficient local, technical ANDRITZ team were highly appreciated by Zhejiang Yubang.

Zhejiang Yubang is a leading company in the production of advanced needlepunched filters. The close collaboration between ANDRITZ and Zhejiang Yubang has been the key to success in the constant quality of the needlepunched fabrics produced on the new line. "We are happy to have selected ANDRITZ as a preferred partner for this project because they have been able to implement the technical solutions adapted to our needs and to those of our customers," said Mr Sun Zhiju, President of Zhejiang Yubang. This new investment will allow the company to achieve annual production of eight million m<sup>2</sup> of needlepunched felts and more than one million filter bags.

### The brief introduction about IDEA 2019

IDEA® 2019, the world's preeminent event for nonwovens and engineered fabric professionals, welcomed 6,500+ participants and 509 exhibiting companies from 75 countries across the entire nonwovens and engineered fabrics supply chain to make business connections last week in Miami Beach, FL.

### The overview about IDEA 2019

IDEA organized by INDA is conducted every three years. The 20<sup>th</sup> edition of IDEA® 2019, March 25-28 broke a display record for the event filling 168,600 square feet of exhibit space (15,663 square meters) within the newly renovated Miami Beach Convention Center. The new record represents a nine

percent increase in display space over IDEA® 2016 as industry participants expressed their business confidence through larger exhibition booths.

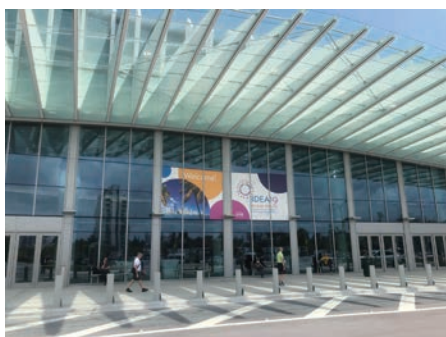
#### IDEA 2019 American Nonwovens Fair

Ranking of exhibitors	Country	Number of exhibitors	Area (square feet)	Area ranking
1	U.S.A	170(33.80%)	63120 (38.38%)	1
2	China	168(33.40%)	35548 (21.62%)	2
3	Italy	28(5.57%)	12594 (7.66%)	3
4	Germany	28(5.57%)	10512 (6.39%)	4
5	Taiwan, China	16(3.18%)	4625 (2.81%)	6
6	Turkey	13(2.58%)	8500 (5.17%)	5
7	India	12(2.39%)	3750 (2.28%)	7
8	France	11	2227.5	11
9	Japan	6(1.19%)	3000 (1.82%)	8
10	Britain	5	775	21
11	South Korea	4	1350	15
12	Belgium	4	887.5	20
13	Israel	3	2900	9
14	Brazil	3	2400	10
15	Mexico	3	1550	13
16	Austria	3	1475	14
17	Finland	3	1200	16
18	Denmark	3	1200	16
19	Canada	3	1183	18
20	Hongkong, China	2	1000	19
21	Singapore	2	600	22
21	Thailand	2	600	22
23	Netherlands	2	225	25
24	Czech	1	1800	12
25	Ireland	1	300	24
26	Spain	1	200	26
27	Sweden	1	200	26
28	Poland	1	200	26
29	Switzerland	1	150	29
30	Malaysia	1	150	29
31	Columbia	1	150	29
32	Australia	1	75	32
Total		503	164450 square feet, 15282.3 square meters	

According to the official exhibition plan and official exhibitor manual on February 12, 2019

The triennial event organized by INDA featured seven new nonwovens training classes, market presentations from China, Asia, Europe, North America and South America, industry recognitions with the IDEA® Achievement Awards, the IDEA® Lifetime Achievement Award, and a welcome reception celebration of INDA's 50<sup>th</sup> anniversary.

Exhibitors and attendees noted the large number of industry senior leaders





## Business News

participating in the three-day event. "IDEA provided exceptionally strong metrics in leadership presence this year. The event attracted a high level of key decision makers, a testimonial to the show's importance within the international nonwovens and engineered fabrics industry," said Dave Rousse, INDA President.

"The quality of attendees and visitors was exceptional," said Mark Steinbrecher, Sales Manager, OPTIMA Nonwovens. According to Pat Mahoney, Key Account Manager at Berry Global, the absorbent hygiene prospective activity was "more than expected."

"The size and scope of the booths were impressive," according to Pedro Camerena Torres, Chief Commercial Officer with Polimeros y Derivados of Mexico.

### Other highlights of IDEA® 2019:

The presentation of the IDEA® Achievement Awards – sponsored by INDA and Nonwovens Industry Magazine - recognized companies in five categories for the best new products introduced since IDEA® 2016. Competing among over 50 nominees, the winners of the IDEA® 2019 Achievement Awards were:

- \* IDEA® 2019 Equipment Achievement Award: A.Celli Nonwovens S.P.A. - A. Celli Vision System
- \* IDEA® 2019 Raw Materials Achievement Award: Lenzing AG - Veocel™ Lyocell Fibers
- \* IDEA® 2019 Roll Goods Achievement Award: Fitesa – Fitesa 100% Biobase PLA Soft
- \* IDEA® 2019 Short-Life Converted Product Achievement Award: Callaly - Tampliner®
- \* IDEA® 2019 Long-Life Converted Product Achievement Award: Soteria Battery Innovation Group - Soteria Battery Architecture

The IDEA® 2019 Entrepreneurial Achievement Award is selected by the editors of Nonwovens Industry Magazine. This year editors found a unique supporter and developer of the entrepreneurial spirit rather

than a specific product invention.

P&G Venture Labs is the recipient of the IDEA® 2019 Entrepreneurial Achievement Award, first, for helping aging adults perform daily self-care activities and preserving personal dignity and independence, and secondly, for alleviating symptoms of menopause driven by the loss of estrogen over time.

Capping off the awards event, Rousse recognized the accomplishments of Robert Julius, President of Nice-Pak Products, Inc. in awarding him the IDEA® Lifetime Achievement Award. Mr. Julius was recognized for his lifetime commitment to research, quality, innovation, and service. Nice-Pak and PDI have pioneered the development of wet wipe products and markets globally, that serve the consumer, commercial, healthcare, and contract markets.

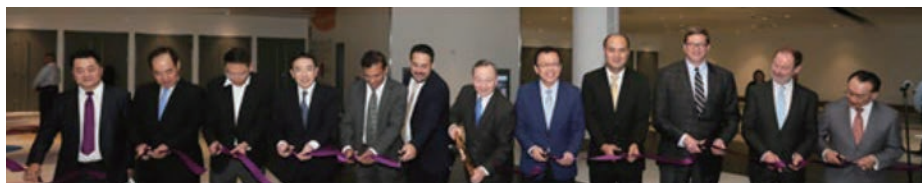
### IDEA® Training Opportunities:

For the first time IDEA® offered short course and refresher training. Over 260 industry professionals took advantage of INDA's essential training on Nonwovens Basics, Wet Wipes, Absorbent Hygiene, and Filter Media for air and liquid taught by renowned industry experts.

### INDA's 50<sup>th</sup> Anniversary Welcome Reception:

Over 500 participants enjoyed hors d'oeuvres, beverages, live music, and video in paying homage to 1968, the year INDA was formed and a year when a gallon of gasoline cost 34 cents and a loaf of bread cost 22 cents. The anniversary welcome reception enabled INDA to express appreciation for the continuous support from its members and commit to continuing its mission to advance the success of the nonwovens and engineered fabrics industry and its members.

IDEA® 2022 will be held March 28-31, 2022 again at the Miami Beach Convention Center, Miami Beach, Florida. For more information, visit [www.inda.org](http://www.inda.org).



Opening ceremony of IDEA Exhibition (Miami Beach Convention and Exhibition Center)

## Business News



Exhibition highlights

### Definition of ISO 9092 Nonwovens and Standards for Test Methods of ISO 9073

On March 25, the meeting about Working Group on nonwovens of Technical Committee 38 of International Organization for Standardization (ISO), was held at Miami Convention and Exhibition Center to discuss and deploy the definition of the revision of five sub test method standards of ISO 9073.

The representative of EDANA announced at WG9 meeting in Miami that the new nonwovens definition of ISO 9092 has been 100% supported and released by ISO, and can be purchased on the ISO website from now on. The new definition classification has been separated from the textile category. It is scientifically and clearly defined as a kind of fibrous material which can be engineered different from textiles and paper (no matter what kind of fibers or filaments are used, including spunmelt, drylaid, wetlaid or hybrid webforming, bounded by any physical or chemical method). The new standard also elaborates on the terminology of nonwovens.

This is a hard-won new definition, a new definition pursued by generations of nonwovens, which is of great significance. In the future, the International Customs Code System will be promoted to adopt new definitions to redefine the independent classification code for nonwovens products (HS2022 version).

The WG9 conference in Miami also discussed revising about the ISO 9073 standard for testing methods of nonwovens, including five sub-standards (ISO 9073-4, 8, 11, 13, 14). The five sub-standards involve tear resistance of nonwovens, Nonwoven Coverstock

Liquid Strike-Through Time Using Simulated Urine, Repeated Liquid Strike-Through time, Wetback After Repeated-Strike-Through Time and Nonwoven Run-off.

The meeting deployed follow-up work about the revision of five sub-standards of ISO 9073.

In addition, on March 26, the Asian Association of Nonwovens held a special Council in the conference hall of Miami Exhibition Center. At the meeting, it was decided that the ANFA Council and seminar in 2019 would be held at the Shangri-La Hotel, New Delhi, India, from November 6 to 8.

At noon on March 26, INDA invited leaders of global associations to participate in the work luncheon.

At the luncheon, EDANA President Wirtz introduced the new definition of ISO9092 nonwovens, stressed the importance of issuing the new definition, and informed the three continental associations that they would promote the adoption of a new definition by the International Customs Organization (WCO) and re-stipulate the independent classification of nonwovens products in the revised Customs Classification Code (HS2022) in 2022.

The representative of EDANA introduced relevant laws and regulations on environmental hazards caused by plastic waste worldwide, the situation that disposable nonwovens may face, and the European Union Directive on Single Use Plastics, which also directly require towel manufacturers to extend their social responsibilities.

The report impressed the participants deeply





## Business News

and inspired the sustainable development of the global nonwovens industry and circular economy.

(Reported by Xiang Yang, Chairman of China Nonwovens Technical Association, CEO of ANFA Working Committee)

### Freudenberg & Vilene start up production line in China

Will increase production at Suzhou site by 8 million m<sup>2</sup>

Freudenberg & Vilene Nonwovens brought a new production line for car headliners into operation at its Suzhou site in Eastern China. This enables the company to meet the increasing demand for high-quality car headliners in China and South-East Asia. Freudenberg Performance Materials is the specialist for technical textiles of the Freudenberg Group. In China, Freudenberg & Vilene Nonwovens, a joint venture with Japan Vilene Company, Tokyo / Japan, represents the Group.

With the new production line, Freudenberg will increase its annual production of technical textiles in Suzhou by around 8 million m<sup>2</sup>. Customers will particularly benefit from higher quality of the next generation headliner products. "This investment underscores our long-term commitment to Asia. We want to continue to support our customers in the automotive market with innovative and sustainable solutions that will help them grow," comments Dr. Frank Heislitz, CEO of Freudenberg Performance Materials.

Freudenberg & Vilene Company headliners are based on nonwovens and can be finished in various ways to provide additional functionality. Apart from excellent surface appearance with good abrasion resistance, outstanding acoustic properties and improved stain resistance, these products contribute to higher comfort in the car interior as well as marked reduction in vehicle weight when combined with other vehicle components. In addition, the company also uses a proportion of recycled products in the manufacture of its products. In this way, Freudenberg helps its customers to reduce their environmental footprint.

"Freudenberg & Vilene Company offers its customers innovative products ensuring consistently high quality," explains Heislitz.

Freudenberg & Vilene Company first introduced printed headliners to the market in 2010, thus capturing a special customer need. Already in 2016, the company invested in an additional production line.

In Asia and China, Freudenberg & Vilene Company enjoys long-standing relationships with Asian OEMs, where it holds a leading position in the market. A cornerstone of this success has been the ability to create numerous headliner innovations.

Alongside the production of products for car interiors, Freudenberg & Vilene Company's product portfolio includes industrial nonwovens for the apparel industry, industrial ventilation and other technical applications.

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

### Stanza Living sets up Fem Hy vending machine in India

Pod provides students 24X7 access to fem hy and wellness products

Stanza Living, India's leading student accommodation provider and Sirona, a social start-up focused on providing feminine hygiene and wellness solutions for women on the move, have joined hands to launch Sirona Hygiene Pod – India's first digital vending machine for feminine hygiene products. Piloted in Stanza Living residences, the Sirona Hygiene Pod provides students 24x7 access to many category-first feminine hygiene and wellness products, at just a tap.

Stanza Living residents can access a comprehensive range of products including feminine washes, Sirona Menstrual cups, PeeBuddy (India's first female urination device), intimate wet wipes, tampons, Sirona herbal period pain relief patches, sanitary disposal bags, panty liners etc to address sanitary and menstrual needs. The machines accept Paytm, digital payments as well as cash.

Speaking about the partnership, Anindya Dutta and Sandeep Dalmia, Co-founders, Stanza Living said "Stanza Living is creating bespoke student living experiences. This means, we not only create high-quality residential spaces designed for students, but also drive value by bringing an array of exciting brand propositions to their doorstep. Our aim is to plug even their smallest daily needs. The partnership with Sirona: PeeBuddy

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is targeted at a specific concern – ensuring that our female residents can have round-the-clock access to healthy and enabling products under one roof. We are excited to partner with a brand like Sirona: PeeBuddy, that has pioneered some of the leading feminine hygiene and wellness solutions, uniting in our efforts to provide relevant brand experience to our consumers.

Speaking about the Sirona Hygiene Pod, Deep Bajaj, Founder, PeeBuddy & Sirona Modern Menstrual Hygiene Products said “As a start-up, our life revolves around identifying and solving those Intimate & Menstrual issues for women which are not openly discussed. We started with Dirty Toilets with PeeBuddy & went on to introduce many category-first products under SIRONA which have been well appreciated by customers. ‘Sirona Hygiene Pods’ are a step towards disrupting the distribution hassles faced by women by bring products closer to them, with round the clock access. We loved the ideology of Stanza Living and the importance they give to many such needs for their residents and decided to launch the first ever pod with them.

Apart from addressing immediate sanitary requirements of young women, this is also an exercise in educating them about the wide variety of customized solutions for diverse hygiene and care needs.

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

### Unicharm acquires Thai Diaper Maker

**Deal to buy DSGCL Group adds lower-priced brands in Southeast Asia**

Recently, Asia's largest hygiene products company, Unicharm Corporation, announced it would acquire entire shares of DSG International, a manufacturer of diapers and other absorbent products in Southeast Asia. The deal, which is said to be worth \$530 million, represents one of Unicharm's largest overseas acquisitions ever, and significantly bolsters Unicharm's lineup of low- and mid-priced diapers in Southeast Asia, while also adding production capacity in new countries for the Tokyo, Japan-based company.

DSGCL Group manufactures disposable diapers for babies and adults, with locations in Thailand, Malaysia, Indonesia and Singapore. DSGCL's baby diaper brands

include BabyLove, Fitti and PetPet, while its adult diaper brands include Certainty. The company is reportedly the leading adult diaper manufacturer and second largest maker of baby diapers in Thailand and has been working hard to close the gap between itself and its future owners. In 2016, the company, which has annual sales around \$250 million, launched BabyLove nanopower, diapers featuring a patented mega thin sheet and followed this launch with a pants-style diaper.

Unicharm developed its 10th Medium-Term Management Plan in 2016 with the goal to accelerate the globalization and growth of its business.

Under the plan, Unicharm aims to increase its consolidated net sales of to ¥800 billion or \$7 billion, representing a compounded annual growth rate of 7%. Unicharm has proactively expanded its business especially in high growth markets in Asia, as an important part of its strategy to concentrate on priority countries and regions.

The integration of the DSGCL Group into Unicharm will help expand and improve its product lineup, enhance its market position and realize the economies of scale in the Southeast Asia region, particularly in Thailand and Malaysia.

Unicharm has been steadily growing its Asian business outside of Japan. The company acquired Vietnamese hygiene products producer Diana in 2011 and Myanmar Care Products in 2014 and has invested steadily in greenfield operations in fast-growing markets like China and India in recent years. Last year, its sales within Japan represented just under 42% of its total business while 43% of its business was done elsewhere in Asia. Within the baby diaper market, Unicharm has a no. 1 marketshare in Japan, Vietnam, Indonesia and Thailand, a no. 2 position in India and a fourth position in China. In feminine hygiene, Unicharm holds no. 1 positions in Japan, Indonesia and Vietnam while in adult incontinence it has no. 1 positions in Japan, Indonesia, Vietnam and Taiwan and a no. 2 position in Taiwan and a no. 2 position in Thailand.

Earlier Unicharm CEO Takahisha Takahara said the importance of the Southeast Asian

>>> next 19



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### Farè to install line in Bulgaria

HIK-91 will start up production on new spunbond line in the first quarter of 2020

The company HIK-91 has decided to start the production of high performing nonwovens with the purchase of a new Farè spunbond line in Plovdiv, Bulgaria.

The new spunbond line uses polyolefin as raw materials for the production of a wide variety of products thanks to the technological solutions implemented by Farè to its recent spunbond lines. For HIK-91 this is the first step of a growth strategy for innovative nonwovens in its market areas. HIK-91 has chosen Farè as partner for this new industrial investment after a careful survey of the spunbond process available where the high performance of premium products, the energy saving and the flexibility of the line to produce different webs are key winning factors of Farè technology.

Farè will supply to HIK-91 the equipment for the production of spunbond from light to medium weight webs covering nonwovens from hygiene to agriculture to industrial applications. This will allow HIK-91 to enter with a leading position in high demanding markets with the Farè line thanks to its innovative solutions. The line will start production in the first quarter of 2020.

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

### Pacon invests in NC

Pacon Manufacturing Corporation, a contract manufacturer, is reportedly building a new facility Navassa, NC, creating 299 new jobs and investing \$37.6 million in the region.

The company develops and manufactures wipes, pads, towels and liquids for the consumer, industrial and medical industries. Pacon's products range from disinfecting wipes to makeup remover pads to personal care wipes, and the company manufactures goods for the leaders in consumer-packaged goods. Pacon Manufacturing was founded in 1949.

"Pacon Manufacturing looks forward to this opportunity to partner with the people and resources of Brunswick County and the great state of North Carolina," says Mike Shannon, chairman of the board. "We would like to thank the teams at NC Commerce and Brunswick County, among others, who have

been instrumental in making this possible. This new facility in Navassa is a key component to our growth in the upcoming years."

"Manufacturers need workforce and infrastructure, and Brunswick County has both," says Secretary of Commerce Anthony M. Copeland. "I am proud to welcome Pacon Manufacturing's significant investment in North Carolina. Pacon is making a big bet on our state, and I know we have what it takes to deliver."

The North Carolina Department of Commerce and the Economic Development Partnership of North Carolina, were instrumental in supporting the company's expansion decision.

A performance-based grant of \$300,000 from the One North Carolina Fund will help facilitate Pacon Manufacturing's opening of its new facility in North Carolina. The One N.C. Fund provides financial assistance to local governments to help attract economic investment and to create jobs. Companies receive no money upfront and must meet job creation and capital investment targets to qualify for payment. All One NC grants require a matching grant from local governments and any award is contingent upon that condition being met.

In addition to North Carolina Commerce and the Economic Partnership of North Carolina, other key partners in the project include the North Carolina General Assembly, the North Carolina Community College System, North Carolina's Southeast Partnership, Brunswick County and Brunswick County Business and Industry Development and Duke Energy.

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

### A.Celli to supply two IRIDIUM® printing machines in China

Foshan Huahan Sanitary Material Co. Ltd., a Chinese leading company specialized in the flexo printing process of baby diapers, has acquired two new A.Celli IRIDIUM® printing machines, Mod. 8105, that will be installed in Foshan Huahan's branch, in December 2019.

As A.Celli IRIDIUM® is considered an ideal press for short and long runs, Foshan Huahan Sanitary Material can quickly respond to their customers' production needs.

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Among other features, the A.Celli IRIDIUM® mod. 8105 is equipped with the new A.Celli Nexus® film re-winder, patented by A.Celli Nonwovens, allowing the automatic alignment of the multi slitting and core device with the printing path, this solution minimizes the set up time and waste during the start up.

The patented splice device, installed on A.Celli Nexus® film re-winder, allows optimize splice without tape and reduce to zero the waste during the doffing cycle.

In addition, the machine incorporates quick job changes, automatic fast job set up, an automatic washing system, 100% video camera that includes quality control and dynamic repeat length adjustment and controls that reduce waste due to inhomogeneous material.

A.Celli IRIDIUM® mod. 8105 drying system is designed to improve environmental protection and energy savings, and can switch from solvent-based to water-based inks to meet the trend of green production and zero VOC emission.

Maintenance is easier and more accessible, as the machine incorporates an automatic CI washing system and it is possible to disassemble the drying boxes from the side for cleaning.

A.Celli IRIDIUM® HMIs give relevant production information on a user friendly data screen.

The Platform for Industry 4.0, developed by EXTREME AUTOMATION, includes information such as daily job tasks, printing job length completed and roll printed, machine down time, and it enables the implementation of remote troubleshooting, a wide range of predictive maintenance programmes and e-service which improve the uptime.

### The commissioning of a winder and rewinder in Poland!

**A Stream winder and Rapid rewinder have been installed with success!**

A.Celli Nonwovens has proven once again to be a benchmark company in the global

market of non-woven fabric with the installation of a winding and rewinding system for Spunlace products at the plants of Novita S.A. in Poland, and the commissioning of the system on February 7th.

Novita S.A. has operated on the non-woven fabrics market for over 40 years, offering high-quality hygiene, industrial, medical and home products created by applying the best technologies to its production processes of which A.Celli machines now form a part.

In detail, A.Celli supplied:

- a Stream winder of 3600 mm that handles reels up to 2500 mm in diameter, with basis weights from 25 to 100 gsm and designed specifically for carded products. It is highly reliable and requires minimum maintenance, and has a maximum operating speed of 350 m/min;

- a Rapid Rewinder of 3600 mm, calibrated for reels up to 1200 mm in diameter, with basis weights from 25 to 100 gsm and an operating speed of 800 m/min. It is equipped with the "DSS" (defect stop system) that monitors the reel and signals any defects to be removed. The system also has a second metal detector installed on the rewinder for the purpose of avoiding metallic contamination. An automatic shaft handling unit for management of the shafts and positioning of the cardboard cores was also supplied with the rewinder.

(Source from: "www.acelli.it")

### Foss adds needlepunch line

**Dilo line will be commissioned in early 2020**  
Foss Performance Materials, a division of AstenJohnson Nonwovens business, announces its investment in a new needlepunch line that will substantially increase its production capacity in the Hampton, NH, location. This new state-of-the-art line is being purchased from Dilo, a world leader in manufacturing of needlepunch equipment for the automotive and industrial fabrics industry.

Steve Polston, president – Nonwovens for AstenJohnson, notes: "We acquired Foss Performance Materials in 2017 as part of an overall strategy to build a significant second segment to the Company. Foss has a long history of service and innovations within the



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automotive, technical, fiber and felt markets. AstenJohnson Nonwovens is known for our high service standards and operational excellence. This investment will further our mandate for growth and our ability to leverage the strengths of Foss with our AstenJohnson Nonwovens business."

Jim Porterfield, vice president - Sales and Marketing for AstenJohnson Nonwovens, also comments: "Clearly, AstenJohnson's continued investment in our Foss Performance Materials facility demonstrates our commitment to our customers in the automotive, decorative, and technical markets. In addition, this state of the art line will allow us to expand upon our already robust product capabilities by offering innovative new products while providing the superior quality, consistency, and delivery our customers have long grown to expect."

Components for the new line will begin arriving in New Hampshire in the second half of 2019 and commissioning is expected in early 2020.

Foss Performance Materials is one of the industry's leading providers and pioneers in the use of needlepunch nonwoven fabrics and specialty synthetic fibers. AstenJohnson Nonwovens includes Foss Performance Materials and Eagle Nonwovens in St. Louis; together these sites place AstenJohnson Nonwovens as one of the largest producers of needlepunch nonwovens in the world. (Source from: "www.converternews.com")

### Thrace Linq completes needlepunch line

**South Carolina investment will meet demand in North America**

Thrace Linq has completed the installation of a new Andritz needlepunch nonwoven line in Summerville, SC. The Thrace Group invested more than \$9 million in this project to satisfy the growing demand for its high performance nonwoven fabrics in North America. The state-of-the-art needlepunch nonwoven line was designed to produce world class quality fabrics for geosynthetics, automotive and floor covering markets. An in-line tenter oven and calender, along with finished width capability beyond 20-feet are just a few of the features this equipment offers. "We are very proud of this cutting edge production

line, and are excited to continue our growth here in Summerville" says Brian Sparks, general manager of Thrace Linq. "This enhancement of capability and capacity will strengthen our competitive position and help us better serve our customers."

Established in May 2007, Thrace Linq is a supplier of woven and nonwoven technical fabrics for a wide variety of textile applications in the Americas.

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

### The Honey Pot hits Walmart shelves

Feminine care company The Honey Pot is growing its distribution. Products from the company's line of plant-based products debuted March 18 at 1,927 Walmart stores in North America.

The Honey Pot's normal and sensitive washes, as well as its normal and sensitive wipes, will be available on shelves. The washes are made with organic extracts and such herbs as aloe, coconut oil and apple cider vinegar, with the sensitive wash offering a gentler formula. The wipes are made of chlorine- and pesticide-free rayon and feature antioxidants and probiotics meant to help eliminate odor-causing bacteria and maintain pH balance.

"It's super exciting that we're rolling out in Walmart nationwide," said Beatrice Feliu-Espada, founder of The Honey Pot. "This gives more customers a chance to find our products where they already shop. We believe women should not have to choose between what's good for their body and good for their budget."

The Walmart distribution adds to the company's already existing distribution at 1,800 Target stores, 94 Whole Foods stores and all Wegman's locations, as well as Target.com and TheHoneyPot.co.

"We are completely changing the feminine care space, demystifying the stigmas around vaginas and creating more natural options for women around the nation," Feliu-Espada said. "I want every woman to have a natural alternative to the conventional products she currently uses."

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

## Market News

### New lightweight solutions to seal against electromagnetic radiation

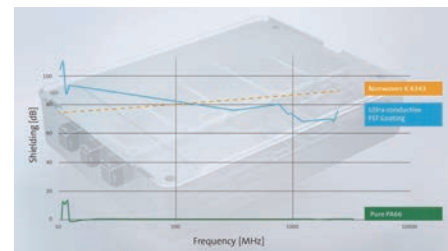
Weinheim (Germany), April 9, 2019. Electronic components must be protected from disruptions caused by electromagnetic waves. Experts from Freudenberg Performance Materials and Freudenberg Sealing Technologies are working together on ways to provide shielding with plastic housings. In the future, they could partially replace the aluminum versions that have dominated the market until now.

Fields of electromagnetic interference often form where electric current flows. When the flow is powerful, in high-performance electric powertrains, for example, the strength of these fields increases, and they can disrupt the signal flow in microprocessors and transmitter-receiver systems. One proven remedy is the encasement of electric components in housings made of a conductive metal. So far, aluminum has been the main tried-and-tested material for this. But its use substantially increases the proportion of aluminum in electric vehicles. This doesn't just impair driving dynamics and vehicle range. Costs also rise because the tools used to produce the aluminum housings have limited durability. Due to their lack of conductivity, significantly lighter plastics have not been considered as materials so far. But experts from Freudenberg Performance Materials and Freudenberg Sealing Technologies have teamed up to develop processes that can equip plastics with conductive coatings or nonwovens. Early lab tests show excellent values for electromagnetic shielding: up to 99.999999 percent.

### Two general approaches to achieving good shielding

There are basically two technical approaches to achieving good shielding in the frequency range of 150 kHz to 100 MHz – a spread especially relevant to the drivetrains of electric vehicles. One of them relies on a specific effect: Electromagnetic waves striking conductive surfaces can be almost entirely deflected. A second approach is to weaken electromagnetic waves at relatively high frequencies in the interior of a material – absorption is the term used to describe this effect. Two processes developed by

Freudenberg combine the two effects. The processes offer specific benefits that depend on the size of the component, among other factors.



Freudenberg Performance Materials has developed a nonwoven that is treated with a special galvanic process. It totally encases individual nonwoven fibers with a copper surface, covered by another material layer to prevent corrosion. Since these nonwovens are produced as endless metered product, the technology is especially suited for components with large surfaces produced in the preforming process. Housing covers for traction batteries are one example. The trimmed nonwoven can then be inserted and compressed into the tool with the pre-product – which is necessary anyway. An inseparable bond is formed during the setting process. Due to the low density of the nonwoven, an extremely small quantity of the material – a mere 60 grams – is consumed per square meter. That is less than the corresponding weight of normal printer paper. Combined with a lighter-weight plastic carrier material, the result is weight savings of up to one-third compared to aluminum housings. This represents about a 5-kilogram reduction in the weight of a battery housing cover.

### "Seal & Shield"

For the shielding of fairly small components, Freudenberg Sealing Technologies has developed coatings that deflect electromagnetic waves from their surfaces. The plastic component is coated with an aqueous dispersion whose plastic matrix contains filler offering a high level of electric conductivity. One alternative is to apply the dispersion to a plastic film, which is in turn integrated into the injection molding tool. In this process, the highly conductive coating lies inside, so it is well protected from mechanical damage. Long-term tests on material samples show that such coatings display very good aging behavior even at 120°C and completely meet the requirements of the LV 124-2 test



## Market News

standard. The standard sets industry-wide testing processes and boundary values for electrical components permitted for use in cars. The protective coating, the plastic housing and its seal create a unit whose parts are ideally coordinated with one another. Freudenberg Sealing Technologies offers these solutions under the phrase "Seal & Shield."

Whatever process is used, neither the coating nor the use of the nonwoven impairs the mechanical properties of the plastic component. This is crucial where the vehicle's electrical components such as motors or batteries are installed in a way that they can be damaged in an accident. But the acoustic and vibration-related behaviors of a component are determined exclusively by the easily calculable properties of the plastic.

### "Innovating Together"

In some applications, it is important for the absorption to account for the lion's share of electromagnetic shielding. This especially applies to the housings for radar sensors that operate in the 77-gigahertz frequency range. If the housing surface were to deflect radar waves, the result could be signal distortion. Freudenberg Sealing Technologies has developed a composite material that can be processed using injection molding and, based on early measurements, exhibits much higher absorption rates than commercially available plastics.

It is not just Freudenberg Performance Materials and Freudenberg Sealing Technologies that are teaming up to develop lightweight materials that offer electromagnetic shielding. The two sister companies collaborate with Freudenberg Technology Innovation, the Freudenberg Group's main research unit, on the selection of appropriate test procedures and on material development. "'Innovating together' is not just a buzzword – it's part of our Freudenberg DNA," said Claus Möhlenkamp, Chairman of the Board of Management at Freudenberg Sealing Technologies. "We are working together to simplify the path to the era of electric mobility." Dr. Frank Heislitz, CEO of Freudenberg Performance Materials, added: "As an example, electric mobility demonstrates a main strength of the Freudenberg Group. As sister companies, we have the ability to combine very different kinds of expertise, which gives us a major

advantage. We can work together to develop innovative solutions for our customers." (Source from: "www.freudenberg.com")

### Owens Corning completes acquisition of Chinese mineral wool manufacturer

US glass producer Owens Corning has announced the completion of its Guangde SKD Rock Wool Manufacture acquisition in Guangde, China. The mineral wool manufacturer's sales were approximately \$10 million in 2017. Mineral wool is the primary insulation material in China due to its lifesaving and fire protection properties.

Julian Francis, Insulation Business President at Owens Corning, said: "We see great opportunity to provide our customers in China with products in both the mid temperature building and high-temperature industrial-application markets. "This acquisition furthers our strategy to expand Owens Corning's technology portfolio across the three largest insulation markets in the world."

The US glass producer now has seven insulation manufacturing facilities across China, providing customers with a full temperature range of products including fiberglass, extruded polystyrene foam, cellular glass and mineral wool insulation.

Paul Wei, Vice-President and Managing Director of Asia Pacific at Owens Corning, said: "We are pleased to further scale our mineral wool manufacturing capabilities in China. "We will continue to invest in and leverage our deep building science and construction expertise to meet our customers' growing needs in this important market." (Source from: "www.glass-international.com")

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acoustical and flooring industries.

Dalco also has nonwoven expertise in the industrial sector, working with design and product engineers to develop cutting edge materials across a vast scope of industrial applications, including construction fabrics and industrial absorbent applications. (Source from: "www.nonwovens-industry.com")

## Market Trends

### EU Parliament supports Commission single-use plastics ruling

Actions aim to reduce marine litter

The European Parliament has agreed on measures put forward by the European Commission to address marine litter coming from the 10 single-use plastic products cited as having been most often found on European beaches.

The rules on single-use plastic items are part of a wider EU Plastics Strategy, which the EU calls "the most comprehensive strategy in the world adopting a material-specific lifecycle approach with the vision and objectives to have all plastic packaging placed on the EU market as reusable or recyclable [as possible] by 2030."

"Today, we have taken an important step to reduce littering and plastic pollution in our oceans and seas," states Frans Timmermans, the EP's first vice president, responsible for sustainable development. "We got this, we can do this. Europe is setting new and ambitious standards, paving the way for the rest of the world."

The banned items reportedly include sanitary hygiene products, cigarette butts, plastic plates, balloon sticks, and food and beverage containers made of expanded polystyrene (EPS) foam.

Some European trade associations have raised questions about the policy's details. Brussels-based Europen, whose members create and sell packaged products, says it "supports the EU's overarching objectives of taking bold action against litter and marine litter in particular," also says it is calling on the European Commission and member states "to clarify without delay the provisions in legislation that remain ambiguous, in order to ensure unified implementation across Europe."

Within the nonwovens industry, the topic of plastic waste has become an important one in recent months. Berry Global, the largest maker of nonwovens globally, and Procter & Gamble, the maker of Pampers diapers, have both joined the Alliance to End Plastic Waste (AEPW), currently made up of nearly 30 member companies, which is focused on helping end plastic waste in the

environment. The Alliance will develop and bring to scale solutions that will minimize and manage plastic waste and promote solutions for used plastics by helping to enable a circular economy. The Alliance membership represents global companies and located throughout North and South America, Europe, Asia, Southeast Asia, Africa, and the Middle East.

"Everyone agrees that plastic waste does not belong in our oceans or anywhere in the environment. This is a complex and serious global challenge that calls for swift action and strong leadership. This new alliance is the most comprehensive effort to date to end plastic waste in the environment," says David Taylor, chairman of the Board, president and CEO of Procter & Gamble, and chairman of the AEPW. "I urge all companies, big and small and from all regions and sectors, to join us."

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

### Ontex opens new production facility in Poland

Ontex Group NV ("Ontex") officially opened its new production facility in Radomsko, Poland recently. The newly built Radomsko plant fits in Ontex' ambition to expand its international presence and will allow the company to better serve the Eastern-European market.

The first production line of the Radomsko site was officially opened recently, at an event attended by local media and partners. Construction of the facility began back in 2017, with an entire investment estimated at 16 million euros. The 26.000 sqm factory was built on a 110.00 sqm site. It is an environmentally friendly facility of which the products are marked with a green energy certificate. In the next years, the facility will expand its capacity from 1 to 4 production lines. By 2020, Ontex Radomsko should employ at least 170 locally recruited employees.

"We are very proud to extend our production capacity in Poland, which is testimony to our strong commitment to the Eastern European market" CEO of Ontex, Charles Bouaziz, said.

Until now, Ontex has been serving Poland by importing products from the Czech Republic.



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The swift development of the Polish market and its advantageous location drove the decision to set up a local facility, CEO Charles Bouaziz explained: "At Ontex, we strongly believe in a local market approach, with manufacturing plants which are strategically located to allow us to respond efficiently and flexibly to consumers and customers' needs. The new production facility in Radomsko will help us better serve our expanding retailer customer base in the region".

The Radomsko factory is the 19th facility of Ontex in the world. The Ontex Group has other production facilities in the Czech Republic, Brazil, Germany and Australia, among others.  
(Source from: "www.ontexglobal.com")

### Airlaid sales up at Glatfelter

**Steinfurt acquisition, increased capacity at Fort Smith boost sales**

Glatfelter reported its results for the fourth quarter of 2018, which include the acquisition of Georgia-Pacific's European nonwovens business based in Steinfurt, Germany effective October 1, 2018, and the divestiture of the company's Specialty Papers business unit effective October 31, 2018.

Consolidated net sales totaled \$229.5 million and \$209.3 million for the three months ended December 31, 2018 and 2017, respectively. Excluding Steinfurt and on a constant currency basis, Advanced Airlaid Materials' net sales increased by 16.3% and Composite Fibers' net sales decreased by 6.2%.

Advanced Airlaid Materials' net sales increased \$32.7 million primarily due to an increase in shipping volume attributed to the Steinfurt acquisition and the new Fort Smith capacity. Higher average selling prices contributed \$1.7 million and currency translation was favorable by \$1.1 million.

"The fourth quarter of 2018 was pivotal to the strategic transformation of Glatfelter," says Dante C. Parrini, chairman and chief executive officer. "I am proud of our team for the progress we made in reshaping our business – completing two significant transactions, as well as reaching an agreement to resolve the Fox River matter."

Mr. Parrini continued, "During the fourth quarter, Advanced Airlaid Materials' shipping volumes increased organically by 10% over the same quarter last year from the continued ramp-up of the Fort Smith facility and new customer qualifications. We are also very pleased with the solid quarter delivered by Steinfurt. With a combined production capacity of approximately 150,000 metric tons at four state-of-the-art airlaid facilities, we are well positioned to further capitalize on the growth opportunities in the attractive markets for hygiene, wipes and table top products."

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

### NorthShore expands adult diaper range

**Adds new colors to its SupremeLite absorbent brief**

Earlier this year, NorthShore Care Supply, a Buffalo Grove IL-based company founded to empower those with heavy bladder or bowel leakage, unveiled its popular SupremeLite absorbent brief, now in vibrant shades of blue, green and purple.

"The launch of this product is a watershed moment for tens of millions of people with heavy bladder and/or bowel incontinence," NorthShore founder Adam Greenberg says. "There's no reason that only people with light incontinence should have products that make them feel good."

He adds: "Customers told us that wearing white clinical-looking briefs often made them feel like they're in a hospital or nursing home. We want people to feel good in a product that is uplifting, not depressing."

That's important because those with heavy incontinence often struggle with depression and anxiety. They may choose to isolate themselves because they're worried about leakage or being found out.

"If we can provide a product that seems more like regular underwear, we can help normalize the situation and chip away at the stigma," he says.

Cheryl B. Gartley, founder of The Simon Foundation for Continence, which works to increase awareness around incontinence and

## Market Trends

lessen the stigma, states: "When people have less fear of their product leaking and they feel better about their product, both of these things could lessen the self-stigma they might be experiencing," she says.

Greenberg knows the stigma firsthand. His father, who suffered from cancer, and his grandmother, who had a stroke, both struggled with incontinence. And he remembers his father refusing to go to the store to buy what he needed.

"It was hard to find products that managed their incontinence and allowed them to maintain their privacy and dignity," says Greenberg, who used that premise to launch his business.

Incontinence issues are one of the top reasons older adults enter nursing homes. But with NorthShore's premium incontinence products, which provide powerful protection (and now style), older adults can stay in their own homes longer and younger adults can live without anxiety and embarrassment of leaks.

"Helping you and those you love stay active and sleep through the night is not just our job," Greenberg says. "It's personal."  
(Source from: "www.convertingguide.com")

### DuPont launches new wallcoverings

New patterns developed for DuPont Tedlar Wallcoverings

DuPont Electronics & Imaging (DuPont) has announced DuPont Tedlar Wallcovering's new Celestial collection, and additions to its signature Passport collection, giving customers colorful, modern choices for a variety of spaces.

The new patterns Saturn and Volans in the Celestial collection evoke a contemporary spin on familiar patterns and textures. DuPont brings them to life with a variety of new printing techniques. The Saturn collection is a subtle, textured, striped wallcovering that echoes the iconic feature of the ringed planet. The Volans offering emulates the flying fish found in its namesake constellation with a light, embossed pattern.

"We collaborated with designers and

architects to ensure that our new wallcoverings have an on-trend look and feel," says Fallyn Flaherty-Earp, Wallcoverings marketing manager at DuPont. "It is important to us to offer fashion forward designs, colors and patterns with our unrivaled durability. Working directly with designers helped us achieve a stylish look combined with our signature stain and abrasion resistance that customers want."

The two new additions to the Passport collection are Mod and a textured Mod Linen pattern that give designers new pairings of crisp, clean and hip designs that compliment and fill a space with style and rich, vibrant color.

"Hospitality designers looking to create unique hotel, restaurant, conference and meeting spaces will be excited with the multiple pairing options and color palette of Mod and Mod Linen in our Passport collection," Flaherty-Earp adds. All collections also are GREENGUARD Gold certified for improved indoor air quality. The product also exceeds Type II wallcovering performance standards and is certified not to promote mold or mildew growth enabling healthier indoor spaces and LEED points.

"It's exciting to collaborate with the best in the industry as we design new collections for DuPont Tedlar Wallcoverings," says Flaherty-Earp. "This is our first new collection of the year, with more to follow."

A Type II wallcovering with Type III characteristics, DuPont Tedlar Wallcoverings are easy to clean and provide stain resistance and durability, all with the modern, fashion forward aesthetics today's designers want. The DuPont technology behind this new wallpaper has been used since 1948 for surface protection in many market applications ranging from aircraft to automotive, rail and bus interiors, to fleet graphics and other wall overlaminates. DuPont Tedlar Wallcoverings are made in the USA and sole-sourced through Endure Walls.  
(Source from: "www.nonwovens-industry.com")

### Suzano expands Eucafluff sales in Europe, Asia and U.S.

Product is the only eucalyptus-based fluff pulp sold in the world



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Suzano, a merger between Suzano Papel e Celulose and Fibria, has increased Eucafluff sales in the European, Asian, and U.S. markets. The product is the only eucalyptus-based fluff pulp sold in the world and is used in personal hygiene items such as diapers and sanitary napkins. Eucafluff is considered a reference of innovation and sustainability and, therefore, has been approved by major global manufacturers. In the last six months, companies such as Ontex and Vinda International, amongst other local players in Europe, the United States, Japan, and China have been buying from Suzano.

Currently, 86% of Eucafluff's sales are made overseas, in which 25% are sold in Europe. "The acceptance of our fluff pulp in mature markets and multinational companies has confirmed the good performance that eucalyptus fiber can also bring to the hygiene market. We are committed to improving the quality and performance of our client's end products and this has reflected in the global partnerships we have achieved these past months," says Alexandre Corrêa, executive manager of the Business Unit at Suzano.

Developed by Suzano and resulting from 11 years of research, Eucafluff is the first bleached kraft pulp of eucalyptus fluff type in the world, and is applied in absorbent products as well as personal hygiene products, disposables like children and adults diapers, sanitary napkins for women, amongst other applications. The key benefits provided by this unique fiber are a higher liquid absorption and retention at product cores and greater comfort and discretion to the end user, such as in the case of application in incontinence pants. These benefits are due to the greater compressibility of the eucalyptus fiber, a feature that has also brought other associated benefits as reduction in packaging size, transportation, and storage costs.

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

### Sandler AG at IDEA show Miami - sustainability and performance

Sandler AG at IDEA Show Miami - Sustainability and Performance

At this year's IDEA Show in Miami, FL, Sandler AG invites visitors to the garden of (green) developments. The nonwovens manufacturer would showcase its broad range for hygiene products, wipes, and technical applications, among them nonwovens that take account

of sustainability.

In baby care, feminine care, and incontinence products Sandler nonwovens for hygiene applications combine functionality and comfort in use. Efficient, even softer nonwovens for intake layers contribute to optimum fluid management. Particularly smooth product variants are ideal for use as tampon covers. A new generation of nonwovens for elastic closure systems combine improved extensibility and high stability in processing. The focus of this year's trade fair participation, however, would be on nonwovens for topsheet applications:

A nonwoven composite, specifically developed for use in diapers in cooperation with a customer, is particularly smooth yet voluminous at the same time. A special embossing creates a topographical structure on the materials surface, which enhances fluid handling as well as comfort in use: moisture collects at the lower points; the bulky sections keep moist parts of the material away from the skin, thus preventing skin irritation. Owing to its low basis weight this new development is ideal for thin, lightweight product structures for hygiene applications—for increased comfort and discretion in use.

Another multi-layer nonwoven offers a structured and perforated alternative for topsheets: The embossing pattern dubbed "canyon" renders the topsheet bulkier, while also increasing stability and creating an individual look. This structure forms a sort of grooves on the topsheet's surface, which help quickly transport fluid away from the body and into the absorbent core. In this way, the nonwovens contribute to preventing skin irritation and support a sense of safety during use.

Sandler topsheet materials made with cotton also contribute to comfort in use—soft, reliably functional and manufactured using an increased share of renewable raw materials.

Renewable resources and the goal of offering more sustainable product solutions even for single-use products are a major focus in the production of Sandler's wipes substrates.

Made from a special, certified viscose fibre,

## Market Trends

Sandler's new substrates are biodegradable and also available as FSC® certified variants. They offer the established Sandler quality - highly absorbent, tear-resistant and better for the environment. The PEFC™ - certified substrate „bio textile by sandler“ is made exclusively from viscose fibres sourced from European forests - sustainable raw materials with a reduced carbon footprint. Newly developed nonwovens made from viscose and cellulose acetate fibres are soft and gentle on the skin. They are biodegradable and compostable. Wipes substrates made from the lactic-acid based raw material PLA and product variants with a share of cotton complete the range of nonwoven substrates made with raw materials from renewable sources.

Especially for applications in household cleaning Sandler would present wipes substrates made from recycled polyester fibres, which also contribute to conserving resources.

An embossing design dubbed „square“ further enhances cleaning properties. Rows of small squares enlarge the nonwoven's surface for optimised dirt removal while also rendering the wipe substrate more voluminous for a softer, fluffier feel.

For disinfection applications, Sandler would showcase a new fine perforation, which is effective in two ways: Firstly, the enlarged surface increases dirt collection for optimum cleaning results. Secondly, fluids accumulate in the material and are quickly released during use—a prerequisite for ideal disinfection.

Product variants featuring increased stability further add to the product range.  
(Source from: "www.sandler.de")

### ExxonMobil expands polymer range

**Innovations meet needs of hygiene customers**

ExxonMobil presents its expanded portfolio of polymers, which enable customers to create innovative soft polypropylene nonwovens, breathable and non-breathable backsheet films, soft-stretch elastic laminates and elastic nonwovens, and adhesives for hygiene and personal care products at IDEA.

“IDEA19 is the perfect platform for customers to discuss their challenges and innovation ideas with our polymer and application experts,” says Bhaskar Venkatraman, vice president, ExxonMobil Chemical. “Together, we can start creating differentiated solutions to meet the needs of the growing global population, increasing urbanization and expanding middle class.”

ExxonMobil's portfolio of performance PE polymers, including Exceed™ XP, Exceed™ and Enable™ performance PE polymers deliver thin, comfortable and secure breathable and non-breathable backsheet films. In addition, Achieve™ Advanced PP allows brand owners to rethink what's possible by providing outstanding barrier properties and up to 15 percent higher fabric strength for nonwovens. Also on display will be products made with Vistamaxx™ performance polymers, Escorez™ tackifiers, and ExxonMobil™ PP resins, all of which are used extensively by converters and formulators around the world.

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

### Dalco exhibits needlepunch products

**Applications include automotive, geosynthetics, home furnishings and industrial**

Conover, NC-based Dalco Nonwovens is exhibiting its wide range of needlepunched nonwovens at IDEA19.

For automotive applications, Dalco offers thermoformable and acoustical products that are designed to fit many automotive needs. From trunk liners to wheel well liners, Dalco provides environmentally friendly engineered nonwovens.

For the geosynthetics market, Dalco has numerous products for filtration, stabilization and reinforcement for roads, landscaping, erosion control, separation and drainage. With NTPEP certification, Dalco can meet the needs of customers within the geotextile and DOT markets.

Dalco's offerings in the home furnishings sector are specifically engineered for the furniture and bedding industries. It also provides specialty niche products in the

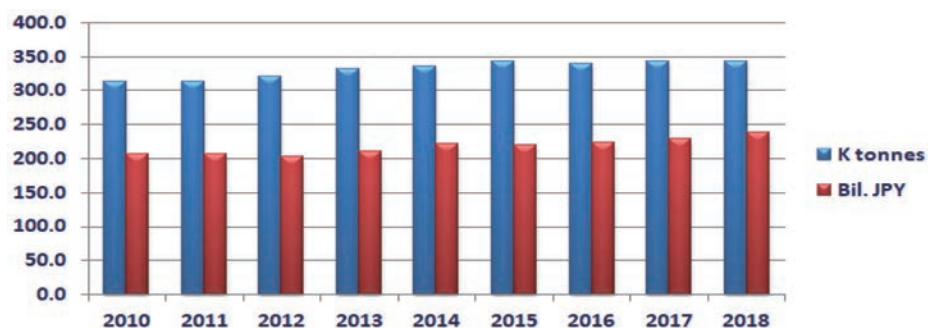


## 2018 Japan nonwovens production

### Japan nonwovens production (2010~2018)

Source: METI

	2010	2011	2012	2013	2014	2015	2016	2017	2018
K tonnes	313.4	313.0	320.9	331.5	336.3	342.0	339.6	342.1	342.8
B JPY	206.9	205.7	203.5	210.2	221.3	220.6	223.5	229.2	237.6
JPY/kg	660	657	634	634	658	645	658	670	693



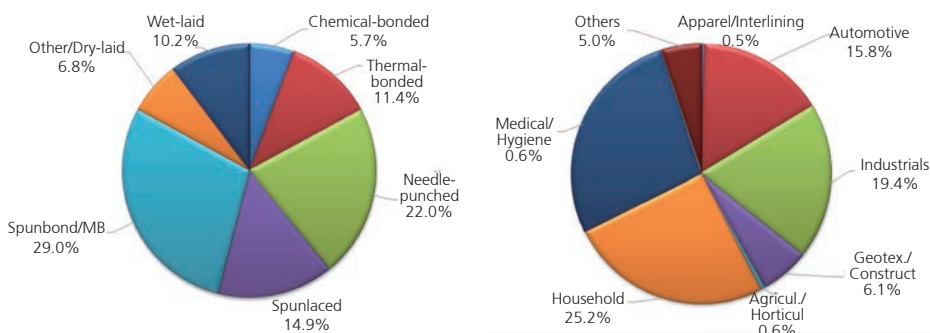
[Ref.]: Nonwovens production in foreign countries by Japanese companies (capitalization ratio: 49% or more)

Source: ANNA

2012: 165.1 K tonnes, 62.3 B yen, 2013: 196.3 K tonnes, 84.1 B yen  
2014: 227.5 K tonnes, 103.2 B yen, 2015: 259.1 K tonnes, 120.1 B yen  
2016: 266.4 K tonnes, 107.5 B yen, 2017: 294.3 K tonnes, 125.5 B yen

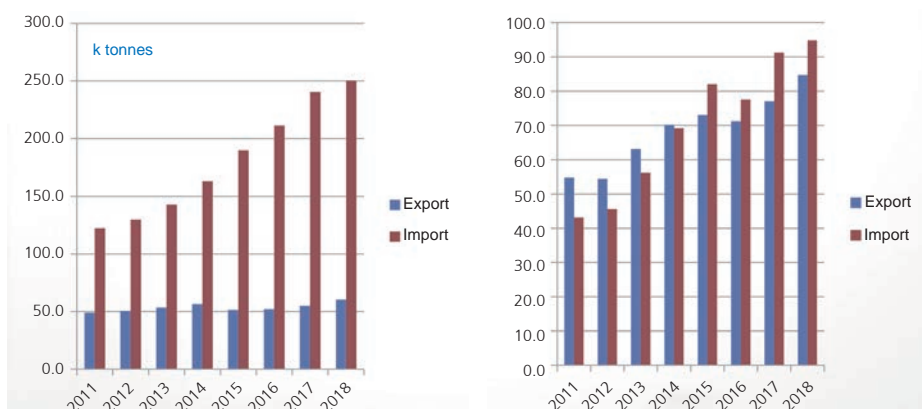
### Japan nonwovens production by technology & application (2018) (342.8 K tonnes)

Source: METI



### Japan trend in export & import (2011~2018)

		2011	2012	2013	2014	2015	2016	2017	2018
K tonnes	Export	48.9	50.5	53.3	56.3	51.3	52.0	55.0	60.4
	Import	122.2	129.6	142.8	163.0	189.8	211.2	240.5	250.4
B JPY	Export	54.8	54.4	63.1	70.1	73.0	71.2	77.0	84.7
	Import	43.1	45.6	56.2	69.2	82.0	77.5	91.2	94.8
JPY/kg	Export	1,121	1,077	1,184	1,243	1,423	1,369	1,400	1,402
	Import	353	352	394	425	432	367	379	379

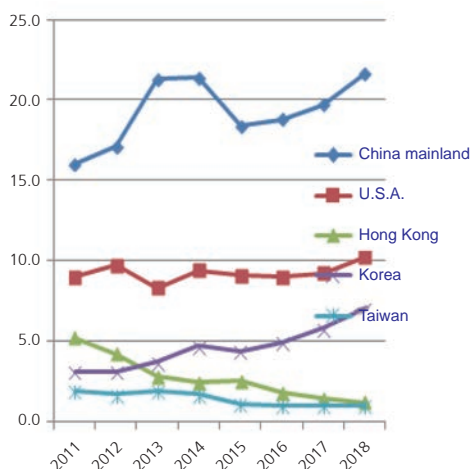


## Area Report

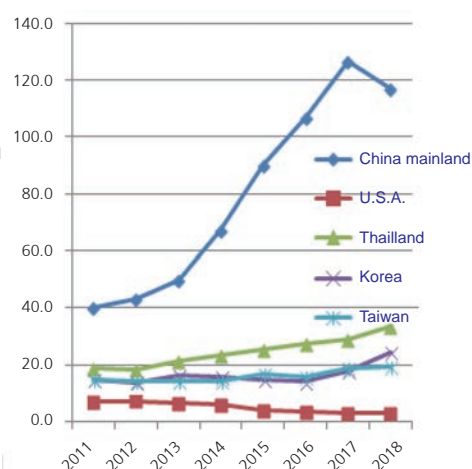
### Top 5 Countries in export & import of Japan (K tonnes)

Source: Ministry of Finance

Export



Import



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market is high due to a growing young population as well as increasing consumption of disposable products.

"The use of disposable diapers and sanitary products is still premature and high growth is expected," he said. "In this sense the importance of Southeast Asian countries is high."

Elsewhere in the region, Unicharm recently completed its latest and largest manufacturing facility in Ahmedabad's industrial area, Sanand. Spread over three million square meters, the facility expands the supply of Unicharm's popular products-MamyPoko, Sofy and Lifree-in India and other key markets.

India emerged as one of the leading markets for Unicharm in terms of sales and turned profitable by the fiscal year ending 2017 and reported sales in the 20% range in 2018. As the company works towards achieving its goals, it has been making strong progress in India.

"India is special to us and the love that we've seen here over the past 10 years is overwhelming. The team has been able to develop products by understanding the needs of consumers and bringing the best hygiene practices, powered by Japanese quality and experience. I am excited to be a part of this important milestone which marks our 10th year in the country and expansion of our operations," Takahara says. (Source from: "www.nonwovens-industry.com")

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#### Technical communication

The technical communication between upstream and downstream is insufficient, the requirements of PE, PP, PET particles, oil agent, ES fiber and hot air production require more communication and exchange.

### Situation of air through-bonding nonwovens

The application market of air through-bonding nonwovens in China has been at

the forefront of the world and is facing more severe technological progress and challenges.





## Current situation and future of air through-bonding nonwovens in China

William JIAO, General Manager  
Shanghai Fengge Nonwoven Co., Ltd.

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- 2) Quality Analysis of Air Through-bonding Nonwovens in China
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### Air through-bonding nonwovens market in China

#### Air through-bonding nonwovens application market

#### Absorptive Hygienic Products (AHP) Market in China (2016-2018)

Year	2016	2017	2018	Annual Compound Growth Rate
Total market size / Billion yuan	103.74	113.89	118.87	7.04%
Female hygiene	50.77	52.74	56.3	5.31%
Baby diapers	48.09	54.86	55.54	7.47%
Incontinence for adults	4.88	6.29	7.03	20.02%

Air through-bonding nonwovens are mainly used in disposable hygienic products. From the three categories of disposable hygienic products in China, we can see that the sales scale has a certain growth every year.

#### Female hygiene

	2017	2018	Growth Rate/%
<b>Sanitary Napkin</b>			
Yield/ Billion pieces	93.4	92.01	-1.5
Factory sales/ Billion pieces	90.34	91.18	0.9
Factory sales/ Billion yuan	28.01	29.21	4.3
Market size/ Billion yuan	45.97	50.06	8.9
Market penetration/%	100	100	0
<b>Panty Liner</b>			
Yield/ Billion pieces	40.71	40.34	-0.9
Factory sales/ Billion pieces	39.8	38.05	-3.9
Factory sales/ Billion yuan	3.96	4.06	2.5
Market size/ Billion yuan	6.77	6.24	-7.8

The penetration rate of sanitary napkins market has reached 100% in China's female hygiene supplies market, but the sales price has increased considerably, and the consumption upgrading is obvious.

#### Baby diapers

Compared with developed countries, the penetration rate of Baby Diapers Market in China still lags far behind. The growth rate of price is higher than the growth rate of quantity. The growth rate of high-end products is obvious, while the quantity and price of low-end products are falling simultaneously.

#### Adult incontinence products

	2017	2018	Growth Rate/%
<b>Adult Diapers</b>			
Yield/ Billion pieces	4.04	4.46	10.3
Factory sales/ Billion pieces	3.88	4.33	11.5
Factory sales/ Billion yuan	4.77	5.8	21.6
Market size/ Billion yuan	4.15	5.53	33.3
<b>Adult nappy</b>			
Yield/ Billion pieces	1.11	0.96	-13.4
Factory sales/ Billion pieces	1.01	0.94	-7.3
Factory sales/ Billion yuan	0.71	0.47	-33.8
Market size/ Billion yuan	0.58	0.36	-37.9
<b>Nursing mat</b>			
Yield/ Billion pieces	2.03	1.81	-10.9
Factory sales/ Billion pieces	1.89	1.66	-12.2
Factory sales/ Billion yuan	1.41	1.43	1.4
Market size/ Billion yuan	1.56	1.14	-26.9

The quantity and price of adult diapers have been increasing rapidly, and the consumption has been upgrading obviously. At present, spunbonded nonwovens are still widely used in Chinese adult diapers. The high-end adult diapers in Japanese market are already using air through-bonding nonwovens and air through-bonding nonwovens are also beginning to be used in high-end products in China. This is a new growth point of air through-bonding nonwovens.

#### Import and export of diapers & sanitary napkins in January-February 2019

Export/Billion USD	Export growth rate/%	Export growth rate/%
0.268	2.71	6.68
Import /Billion USD	Import growth rate/%	Import growth rate/%
0.138	-32.03	-26.16

In the first few months of 2019, the import of disposable hygienic products decreased significantly and the export volume increased, which proves that the quality of similar products in China has improved significantly. The quality of middle and high-end sanitary napkins and diapers made in China is no longer inferior to those of European brands. Some characteristics have surpassed those of European products, and the quality has improved rapidly.

### Air through-bonding nonwoven market

#### Fierce competition

In the past two years, new enterprises and new air through-bonding nonwoven production lines have increased a lot, and the sales price of ordinary air through-bonding nonwovens has dropped significantly.

#### Serious overcapacity

At present, if all air through-bonding lines in China are fully opened, about 50% of the

	2017	2018	Growth Rate/%
<b>Diapers</b>			
Yield/ Billion pieces	28.97	32.01	10.5
Factory sales / Billion pieces	28.31	30.45	7.6
Factory sales / Billion yuan	23.78	26.18	10.1
Market size / Billion yuan	48.81	50.08	2.6
<b>Nappy</b>			
Yield/ Billion pieces	6.03	5.13	-14.9
Factory sales / Billion pieces	6.08	5.32	-12.5
Factory sales / Billion yuan	3.47	3.08	-11.2
Market size / Billion yuan	6.05	5.46	-6.6
Market penetration/%	59.6	63.9	Increase 4.3%

## Technology News

output will be released

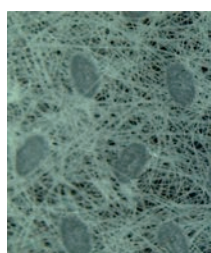
### Numerous influencing factors

Chips, spinning oils, spinning technology, air through-bonding equipments, testing methods and so on, all affect the further upgrading and development of air through-bonding nonwovens, as long as we earnestly and steadfastly do, opportunities will come.

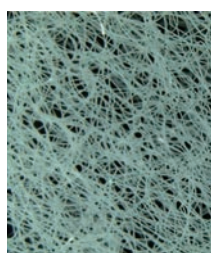
### Lack of professionals

The lack of professionals in air through-bonding nonwovens is a common problem in the industry, which affects the development of enterprises and the speed of industry development.

### Quality analysis of air through-bonding nonwovens in China Contrast spunbonded nonwovens



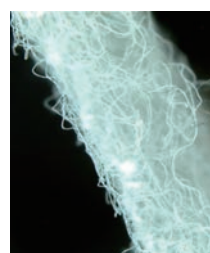
Spunbonded nonwoven



Air through-bonding nonwoven



Section Diagram of nonwoven



Section Diagram of air through-bonding nonwoven

Compared with spunbonded and calandered nonwovens, air through-bonding nonwovens have unique fluffiness, liquid permeability, air permeability and hydrophilicity, making them the most popular cover stock for hygienic products.

### Contrast pure cotton nonwovens



All-cotton Spunlaced nonwoven

**VS**

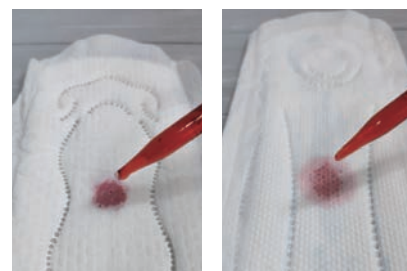
The surface of pure cotton is diffused and moist.



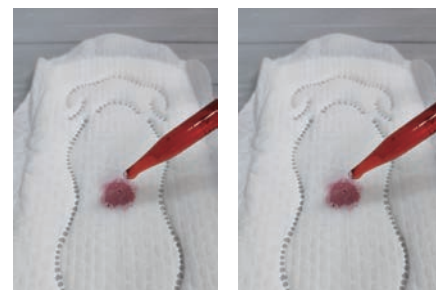
Air through-bonding nonwoven

The surface dryness of cotton surface layer is far inferior to that of air through-bonding nonwovens.

### Comparison of brand products at home and abroad



Sanitary napkins in European and American markets

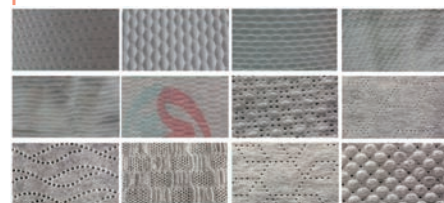


Japanese famous brand sanitary napkins

Domestic high-end products There is still a gap

in terms of the surface dryness and color shading effect between some European and American sanitary napkin products and Japanese products. High-end products made in China can achieve the same effect as Japanese products.

### All kinds of stereoscopic and perforated nonwovens in China



On the basis of fluffy and soft, all kinds of three-dimensional and porous cover stocks are currently the most patterns in the world.

China's air through-bonding nonwovens have become the world's leader.

### The future of air through-bonding nonwovens Adapt to the market

#### New national standard

The new national standard of GB/T8939 sanitary napkin was officially implemented in July.

#### Segmentation of product market

All kinds of products have different



## Technology News

requirements for air through-bonding nonwovens. It is more conducive to product development and marketing by distinguishing female articles, baby diapers and adult incontinence articles.

### Functional products

The improvement of quality of life means that consumers have more and more requirements on product functions. Antibacterial and skin-friendly products have become the market pursuit.

### Functional air through-bonding nonwovens

**\* Cotton Fiber Air Through-bonding Nonwoven**  
Natural cotton fibers are blended to air through-bonding nonwovens to make it more soft and skin-friendly.

### \* Deodorizing and Odor-Absorbing Air Through-bonding Nonwoven

By adding odor-absorbing functional substances into raw material fibers, air through-bonding nonwoven has strong odor-absorbing and deodorizing functions.

### \* Organic Physical Antibacterial Fabric

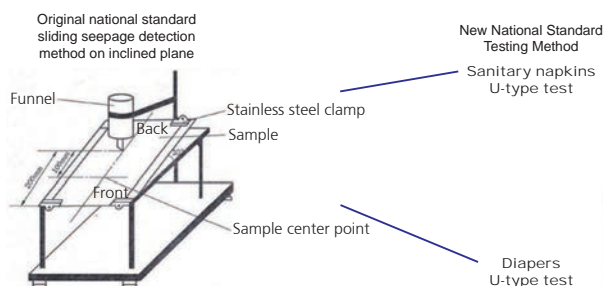
Adding organic antimicrobial material to ES fiber can make air through-bonding nonwoven have broad-spectrum antimicrobial function, safe and effective antimicrobial air through-bonding nonwovens, which can be applied to sanitary napkins and diapers.

### \* Faintly Acid Skin-friendly Air through-bonding Nonwoven for Cover Stocks

Changing the PH value of air through-bonding nonwoven can make it more skin-friendly in use and reduce the probability of red buttocks.

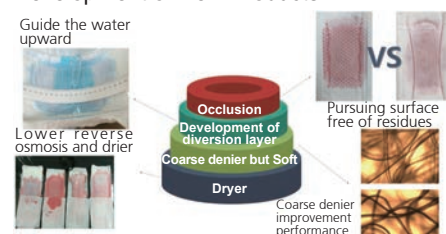
### Guide the market

The impact on products for changes in testing methods



The new national standard will cancel the sliding seepage test on inclined plane and replace it with U-shaped test, which puts forward higher requirements on penetration, diffusion and dryness of the products.

### Development of New Products



### Open the Industrial Chain

**Note:** Every link in the industrial chain has an impact on the final consumer experience. Only by opening the whole industrial chain can be better enhance the consumer experience and market development.



At present, the whole industrial chain of China's air through-bonding nonwoven market is generally single-handed, upstream does not know the demand of downstream, downstream does not know the technology of upstream, which hinders the development of products and markets. If we can get through the chain, China's air through-bonding nonwovens will have a broader prospect.

### Bottleneck of air through-bonding nonwovens

#### Equipment limitation

- \* Low productivity
- \* Higher cost
- \* High reject rate

#### Lack of personnel

Professionals are scarce, and systematic training of professionals is scarce.

#### Customer Requirements

Customers are demanding higher and higher quality of existing air through-bonding nonwovens, as well as more and more requirements for product performance.

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## Technical Trends

### Adult incontinence - A thriving market

New innovations continue to emerge in this growing hygiene category

The adult incontinence market continues to offer huge potential for product manufacturers. The rapidly aging population across the globe, coupled with rising rates of health conditions that can come with increased risks of urinary incontinence, are fueling growth in this market.

"Age is not the only contributing factor; obesity, PTSD, prostate surgeries, child birth and other factors increase the incidences of incontinence and usually require a different approach and a variety of product formats to manage the conditions," says Svetlana Uduslivaia, head of Home & Tech Americas at Euromonitor International.

This wide range of incontinence sufferers has opened up opportunities for manufacturers to innovate in this space, and they are continuing to improve absorbency levels, odor control, skin friendliness and breathability in new products. These new developments in pads, disposable underwear, adult diapers and other products have allowed manufacturers to grow and reach new customers. Factors such as increasing awareness and understanding of various incontinence conditions, normalization and better access to products are contributing to this growth.

"Overall trends are somewhat similar to what has been happening in the past few years – product innovation with focus on discretion, comfort, and aesthetics; innovation and marketing aimed at a wider audience, as opposed to only focusing on elderly; younger women and men are in focus too," Uduslivaia explains.

Global retail sales of adult incontinence products reached nearly \$9 billion in 2018 and are projected to reach nearly \$14 billion in 2023 (USD fixed 2018 exchange rate, real/constant value, retail sales price), according to new data from Euromonitor. Meanwhile, away-from-home (institutional sales) reached \$4.6 billion in 2018 and are projected to bring over \$5 billion in 2023 (at manufacturer selling price, or MSP), while Rx/reimbursement sales reached \$3.1 billion and

will likely approach \$3.7 billion in 2023.

#### Incontinence Evolution

Bulky, uncomfortable adult diapers are relics of the past. Manufacturers have recognized that today's incontinence sufferer is more than just the elderly woman at a nursing home, but are also younger people who still have very active lifestyles, and who seek products that will allow them to lead normal lives while managing their individual conditions.

Over the last decade, incontinence products have spread out from the healthcare segment into mainstream consumer products, explains Bart Van Malderen, CEO and chairman of Belgium-based Drylock Technologies. "Anything other than heavy incontinence is no longer seen as a life and/or career changing disorder. People subject to it wish to continue their standard personal, professional and social life," he adds.

The key to this, he says, is discretion. Incontinence products should not leak, not be observed under clothing and not release any odor. "Modern products with state-of-the-art design allow for all of this. In addition to this, there's also a 'feel good' factor, hence products in gender specific designs with either delicate female or strong male prints, all combined with soft and colorful inner and outer sheets," Van Malderen adds.

Technological improvements have allowed adult incontinence products to become thinner and better performing. According to Van Malderen, the first phase of technology consisted simply in increasing superabsorbent content while slightly reducing fluff content. Now, breakthrough technologies such as Drylock's Magical Tubes or P&G's channeled core allow products to become even thinner and at the same time more ventilating, while improving absorption and protection. "Products now really look, feel and fit like normal underwear," he adds.

Drylock's Magical Tubes technology, which first launched in baby diapers in 2017, allows for a better absorbing core efficiency, resulting in an overall thinner product, and an improved fit which brings the product closer to the body. Both items result in a significant leakage risk reduction, up to 50% vs. traditional cores, according to Van

## Technical Trends

Malderen, as well as an improved wearing comfort. Magical Tubes technology for adult incontinence products launched and is currently available in Europe, Russia and Brazil.

In the U.S., Kimberly-Clark continues to have a commanding lead in the market. The corporation's products have retained a nearly 50% marketshare in the U.S., according to data from IRI, a Chicago-based market research firm, in the latest 52 week period ending Jan. 27, Total U.S. Multi-Outlet (Grocery, Drug, Mass Market, Military and Select Club & Dollar Retailers).

Kimberly-Clark's Depend and Poise brands continue to advance the incontinence category through innovation, and over the last decade, have expanded their range of products to suit a variety of needs. In 2008, K-C launched gender-specific options for better fit and performance, and in 2010 introduced different colors and patterns to provide the most underwear-like experience possible.

Several recent innovations from the Depend brand include Depend Real Fit Briefs and Depend Silhouette Active Fit Briefs, Depend Night Defense Underwear for Women, and Depend Fit-Flex Underwear. Last year, four new sizes were added to its Fit-Flex Underwear for Women (S,M,L, XL) and three new sizes were added for men (S/M, L, XL) to provide an even better fit, with softer fabric for better comfort.

K-C's Poise brand, which includes a range of products for women designed for light to moderate bladder leakage, includes pad-free options like Impressa Bladder Supports to pads and liners. Kubica Guevara Koo, global marketing director, Adult Care, Kimberly-Clark, says the Poise Brand is committed to understanding the different needs of women, and delivering solutions that help them manage bladder leakage in the way that best fits their lifestyle.

"As we look at today's market, one of the most powerful improvements has been the increasing awareness and conversations around incontinence," says Koo. "By breaking down the stigmas associated with bladder leakage, our Poise and Depend brands are empowering consumers to seek

answers and products to help them live their lives with confidence."

According to Koo, the need for adult incontinence is growing across markets globally as aging populations expand and awareness is on the rise. "There are big opportunities in younger generations as well, especially amongst women," she says. "Given the high incidence of bladder leakage, a key opportunity is to grow our brands in developing countries as we break down category-related stigmas through increased awareness and education around incontinence."

Procter & Gamble, which re-entered the market in 2014, has been on an upward swing in the U.S. According to the IRI data, P&G's products increased market share by over 2% in the last year, reaching nearly a 14% share in the U.S. In dollar sales terms, the company realized a 25% surge for its Always Discreet and Always Discreet Boutique products combined.

At the time of the initial launch, Always Discreet offered pads that were 45% thinner than the leading competitive pads, according to Selin Waltz, R&D Always Discreet senior engineer. The Discreet line also includes underwear, as well as liners, which were recently upgraded to be the only incontinence liners to offer leakguards to help stop leaks where they happen most – on the side.

P&G gave consumers a new option in incontinence protection in 2017 with Always Discreet Boutique. The line of bladder leak underwear looks, feels and fits like real, pretty underwear, and was specially designed to help women with bladder leaks get the reliable protection they need in a comfortable, feminine and fashionable bladder leak underwear, Waltz says. P&G's patented "Channeled Core" technology in the line helps enable an efficient absorption system (protection without the bulk). "Rather than absorbing leaks in one spot (where the leak hits), this core is engineered to redistribute the liquid across the full length of the core," she explains. "This means absorbency power can be spread more thinly across the full length of the core giving consumers a smooth and comfortable fit even when there's fluid in it."



## Technical Trends

P&G research has found that one in three women over age 18 have some level of incontinence. When it entered the market in 2014, only one in nine women were buying in the incontinence category, and that number has narrowed to one in six, according to Always Discreet brand manager Karen Knight. "Women are starting to realize that the AI category isn't just about big, bulky diapers and that options exist to protect her and also help her feel feminine and confident," she says. "For the past 30 years, the bladder leak protection category has been perceived as old and dated, and the products currently available are known to most as adult diapers."

In fact, according to P&G's research, two in three women who have tried bladder leak underwear avoid wearing them all together even when they know they need them. Always Discreet spoke to thousands of women while developing and enhancing Boutique, and they believed bladder leak protection can either be pretty or it can be protective—it can't be both.

"Real women told us that bulky bladder leak products can erode their confidence and femininity, and 77% of women say wearing their current bladder leak underwear makes them feel older than they would like to feel," says Knight. "Always Discreet also learned that younger women feel embarrassed wearing bladder leak underwear, while older women feel that bladder leak underwear is too bulky. Always Discreet Boutique's line of bladder leak underwear was launched in 2017 to change the way the world thinks about bladder leak protection."

Meanwhile, global hygiene producer Essity has been enhancing its full range of incontinence products on an ongoing basis, partly facilitated by the availability of new materials.

"In the last decade we have seen incontinence products become even more leakage secure, more discreet and comfortable for the user, easier to handle for the caregiver and having a lower environmental footprint. All aspects important for self-management and care efficiency in continence care," says Hans Bergh, global brand director, TENA. "On top of this we have seen improvements in materials available and Essity's technological

knowledge in this area has advanced, which makes it possible to find the right materials and composition of materials to secure good quality of the product."

Recent initiatives from the company include product improvements promoting skin health. TENA ProSkin Technology features a new patented three-dimensional technical solution to quickly wick fluids away; helping to maintain the skin's natural protection. According to Essity, the best way to help prevent skin damage due to incontinence is to keep the skin dry, and the patented ProSkin Technology minimizes the potential for skin to get overhydrated.

Another new product from Essity was developed with help from more than 700 hundred caregivers and nursing home residents. The TENA Complete + Care line, which was introduced in the U.S. last year, offers affordable protection, powered by some of the best TENA technology with 41% more absorption where it matters most. TENA Complete + Care's DuoLock Core Technology, a patent-pending two core technology, allows for even distribution of super absorbent polymer (SAP) and pulp for an even and thinner large core. The smaller core under big core design acts as a reservoir to wick away and lock in moisture; helping to keep skin drier and the wearer more comfortable. The technology helps provide better incontinence care as its higher SAP concentration in the small core provides improved absorption capacity.

### Techy Solutions

According to Bergh, the digital revolution has reached elderly and incontinence care. "Digital continence assessments are becoming more and more common in the developed world; something that didn't exist just 10 years ago," he says. "And, there is still some way to go: we haven't seen the full integration of systems yet, with more devices being connected and less time spent operating different systems or platforms. Going forward the Internet-of-Things will also expand into incontinence care to provide digitally enabled decision support tools, care recommendation, etc."

For its part, the company offers TENA Identify, which integrates an innovative data logging and transmitting device with the disposable

## Technical Trends

TENA Identifi Sensor Wear to electronically track resident voiding patterns in real-time. Over a 72-hour assessment period, TENA Identifi tracks the voiding patterns and volume at each product change, then graphically converts the data into actionable, evidence-based reports that provide a good base for appropriate product selection. This, in turn, empowers staff and caregivers to make more informed decisions on individual continence care without having to rely on manual recording processes.

Another new technology in incontinence care recently launched in the U.S. Triple W, founded in 2015, bills its product DFree as an alternative to disposable diapers and pads for some people with bladder control issues.

DFree, which stands for “diaper-free,” is the world’s first connected health wearable device for people who suffer from incontinence. DFree tracks the progression of bladder size using a non-invasive and non-harmful ultrasound sensor. DFree will help seniors, children and disabled people who need to manage incontinence by predicting when their bladder is full and notifying them when it’s the right time to go to the bathroom. The device is designed to help people with incontinence improve quality of life and enable independence, as well as help reduce the burden for the caregivers.

The lightweight and portable DFree device may be discreetly clipped onto belt or clothing while the non-invasive ultrasound sensor is secured to the lower abdomen with medical tape. The sensor uses non-harmful ultrasound technology to monitor the change in bladder size and predicts urination timing using a patented algorithm. DFree connects via Bluetooth to a smartphone or tablet and sends notifications via the DFree app, informing the individual or caregiver when it’s time to go to the bathroom. The user sets the threshold of when they want to be notified such as when their bladder is 65%, 70% or 85% full.

“Health services globally are struggling with the burden of growing and aging populations and continue to put more emphasis on patients and caregivers to monitor their own well-being,” says Ty Takayanagi, VP of Marketing, Triple W. “Therefore, we believe that a self-monitoring

device like DFree will play a significant role in the future of our society. With DFree, people facing bladder control issues have the option of a convenient, cost-effective and an environmentally-friendly alternative to disposable diapers or pads or medications – giving them freedom to live an active lifestyle and peace of mind from accidents.”

Triple W provides two versions of DFree. DFree Personal is designed for use by individuals and family care providers. The device sends notifications to a phone or tablet to inform when the user or family member needs to go to the bathroom. Meanwhile, DFree Professional is designed for use by hospitals, nursing homes and in-home care agencies. DFree Professional pairs with a base station to upload a patient’s urination status to the cloud to enable remote monitoring by physicians, nurses and professional care providers.

“DFree helps to prevent urinary leaks,” says Takayanagi. “With DFree, people who need to manage the challenge of a loss of bladder control can confidently go about their daily activities knowing they’ll have ample time to get to the bathroom on time. The device gives them more independence to live an active lifestyle and do the things they love to do.”

At the Consumer Electronics Show (CES) in Las Vegas, Triple W won the “Best of CES Award” for the Digital Health and Fitness Category. This category recognizes companies that have demonstrated a product exhibiting the most innovative use of technology to improve users’ health and well-being.

### Wrap It Up

For its role in the incontinence market, Infiana offers engineered film solutions for light incontinence products as well as films for diaper closure tapes. Infiana’s personal care product portfolio has been extensively overhauled and consolidated into a special product line, CareLINE, available as Classic and Premium films, according to Michael Pirner, vice president Personal Care Segment, Infiana.

The new product families represent Infiana’s complete range of specialty films for the Personal Care segment, and offer several highly innovative solutions. CareLINE Light is the world’s lightest and thinnest pouch film,

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## Product News

### Toray announces fiber adsorbent for purifying blood

Fiber selectively removes cells and proteins simultaneously

Toray Industries, Inc. announced that it has created an innovative fiber adsorbent for purifying blood that selectively eliminates bio-targets, such as cells and proteins, by controlling the surface morphology and chemical structure of sea-island composite fiber through the application of synthetic fiber spinning technology. This new fiber adsorbent is expected to improve performance and safety compared with conventional fiber adsorbents. Toray will pursue research with the goal of beginning clinical trials in fiscal 2019.

The fiber adsorbent developed by Toray can selectively eliminate only the cells that induces inflammation (activated leukocytes), as well as proteins (cytokines) without eliminating the cells and proteins essential for maintaining health. The types of cells and proteins that are eliminated can be independently controlled by changing the surface morphology of the fiber or by chemical modification. Using its innovative spinning technology, Nanodesign, Toray successfully controlled, on a nanoscale, the arrangement of highly reactive polymers susceptible to structural change and chemical modification with stable polymers that maintain fiber strength.

Toray has developed Toraymyxin, the world's first blood purification device for the elimination of endotoxins, which was covered by health insurance for cases of septic shock in 1994. The device has mainly been sold to emergency centers and intensive care units. Toraymyxin uses an adsorbent that removes the bacterial toxin called endotoxin. However, in response to numerous requests from clinicians asking for the removal not only of endotoxins, but also of more pathogenic substances with a single column, Toray created this adsorbent, the world's first, the fruition of more than 20 years of research.

Circulating the blood through the column consist of the adsorbent, the highly selective adsorption performance effect produced shows promise in removing only those pathogenic substances that cause a severe inflammatory reaction associated with sepsis, acute lung injury, and cancer treatment, and not reacting with essential proteins.

Toray will test the new technology with animals in collaboration with universities inside and outside Japan and will consider commercialization to provide new treatments for numerous patients.

In the Medium-Term Management Program, "Project AP-G 2019," Toray is working on the Life Innovation Business Expansion (LI) Project, which seeks to improve the quality of healthcare, reduce the burden on healthcare workplaces, and expand businesses that contribute to health and longevity. It has set the goal of expanding the scale of this business to ¥300 billion by fiscal 2020. Toray seeks to contribute to society and continue to grow even more rapidly by delivering on its corporate philosophy of "contributing to society through the creation of new value with innovative ideas, technologies and products."

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

### Jacob Holm presents SoftFlush

Patented dispersible technology for wipes applications

Jacob Holm would present SoftFlush, - a unique, patented dispersible wipe material developed by the company. When it comes to dispersible wipes, softness matters. SoftFlush is a unique, patented dispersible wipe material exceeding the highest levels of dispersibility with significantly higher strength and softness than leading competitors. With custom designed fiber blends from sustainable natural resources, SoftFlush is extraordinarily soft and lofty as well as 100% biodegradable. SoftFlush is designed to meet the rapidly changing demands of the dispersible wipes market. The use of custom designed fiber blends allows for the development of higher wet strength while maintaining outstanding dispersibility properties that exceed current INDANA industry standards.

(Source from: "www.jacob-holm.com")

### Machinery for the production of airlaid and nonwovens

CAMPEN has manufactured commercial production lines and machinery for the nonwoven industry for more than 30 years. Based on the company process and machinery know-how, we design airlaid machinery that ensures a flexible, efficient and energy-saving production. Furthermore, the company at CAMPEN consult and advise



## Product News

on business development for customers who intend to invest in a new airlaid line or improve their existing lines and business.

The company are able to supply different types of airlaid lines and combinations for the production of basic materials for soft and absorbent disposable products for the following industries and applications:

- Packaging and food applications
- Hygiene and personal care
- Medical applications
- Napkins and tablecloths

(Source from: "www.campen.dk")

### o.b. launches organic cotton tampons

**Tampons are available with or without a plant-based applicator**

o.b., the original progressive tampon brand designed by a woman for women in 1950, announced the launch of o.b. organic, an all-new product line of responsibly sourced, 100% certified organic cotton tampons from tip to string. For the first time, this new line from o.b. is also available with or without a Tru-Comfort plant-based applicator—the only o.b. tampons to offer an applicator—made from renewable sources.

For nearly 70 years, o.b. offered applicator-free tampons, which meant one less applicator to a landfill or the ocean, making the brand environmentally conscious before the ecofriendly trend. With o.b. organic, the brand is offering another great choice for women who don't want to sacrifice protection for sustainability. All o.b. organic tampons are free from chlorine, dyes, pesticides, fragrances, and BPA, giving women only what they need and nothing they don't.

"For decades, o.b. has strived to introduce sustainable, effective solutions for periods," says Devon Driscoll, brand manager at Edgewell Personal Care. "With the launch of o.b. organic, we are excited to now offer women 100% certified organic cotton tampons along with an innovative plant-based applicator option. We at o.b. were committed to making an applicator that is in line with our commitment to sustainability."

To promote the launch of the new o.b. organic tampons, o.b. is rolling out its

largest creative digital advertising campaign in years. Playing off the brand's name and heritage as the original progressive choice in feminine care. Original Badass aims to refresh the brand that already has high consumer awareness and modernize it to reach a consumer who doesn't accept things at face value and refuses to accept someone else's standards. As part of the campaign, o.b. acknowledges that no applicator is the best applicator—dubbing a woman's finger the Original Badass applicator. But, for those who need a hand, o.b. organic's plant-based applicator is second best. The campaign launches today and runs through the end of the year.

o.b. organic tampons are now available in Regular and Super Absorbency with an applicator (MSRP \$6.99/18ct) or without an applicator (MSRP \$6.99/24ct) at retailers nationwide including mass, drug, grocery, and Amazon.

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

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with half the material of a normal film and a target grammage of just 10 gsm. Meanwhile, CareLINE Discreet is the world's quietest pouch film, generating just half the audible noise of conventional packaging. The secret behind CareLINE Discreet lies in its unique material and sealing method. CareLINE Discreet features a tight seam via linear sealing with two continuous sealing strips. An adjustable peel effect through a two-phase system consists of a sealable polyethylene matrix and islands of polybutene to reduce the actively sealable surface area.

"The elderly population tends to enjoy a healthier, more active lifestyle today, so better protection, thinner products and comfort and flexibility are trends we see in the market," Pirnir says. "Incontinence product manufacturers are also taking advantage of new packaging styles with vibrant colors and design graphics as incontinence products have become considerably less taboo. The previous institutional-style image of adult incontinence product offerings has definitely begun to change, and we expect this trend to continue in the future. These trends influence growth opportunities for premium products worldwide but also in developed regions where growth rates are usually low."

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