Sponsor: ANFA

Jun. 2018 | ISSUE 41

ISSN 2413-9076

Asia's Only Regional Bilingual Magazine for the Nonwovens Industry

NonwovensAsia

亚洲非织造材料工业　ノンウオーブンス·アジア　부직포 아시아

FEILONG 飛龍

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

120M新型热风无纺布生产线

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

常熟市飞龙无纺机械有限公司
Changshu Feilong Nonwoven Machinery Co.,Ltd.
电话：+86 512-52581505　52581467
TEL: +86 512-52581505　52581467

传真：+86 512-52583888　52587111
FAX: +86 512-52583888　52587111
邮箱：info@feilong.cn
EMAIL: info@feilong.cn

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

垂直式混开棉机组
Vertical mixing opener

ASBG003气压自动棉箱
ASBG003 Air auto hopper

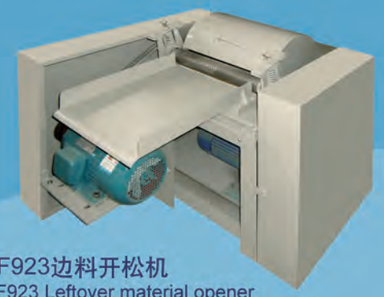
ASBG091梳理机
ASBG091 Carding machine

ASBG215系列梳理机
ASBG215 Carding machine

ASBG401高速铺网机
ASBG401 High-speed cross lapper

ASBG939大仓混棉箱
ASBG939 Large bin hopper

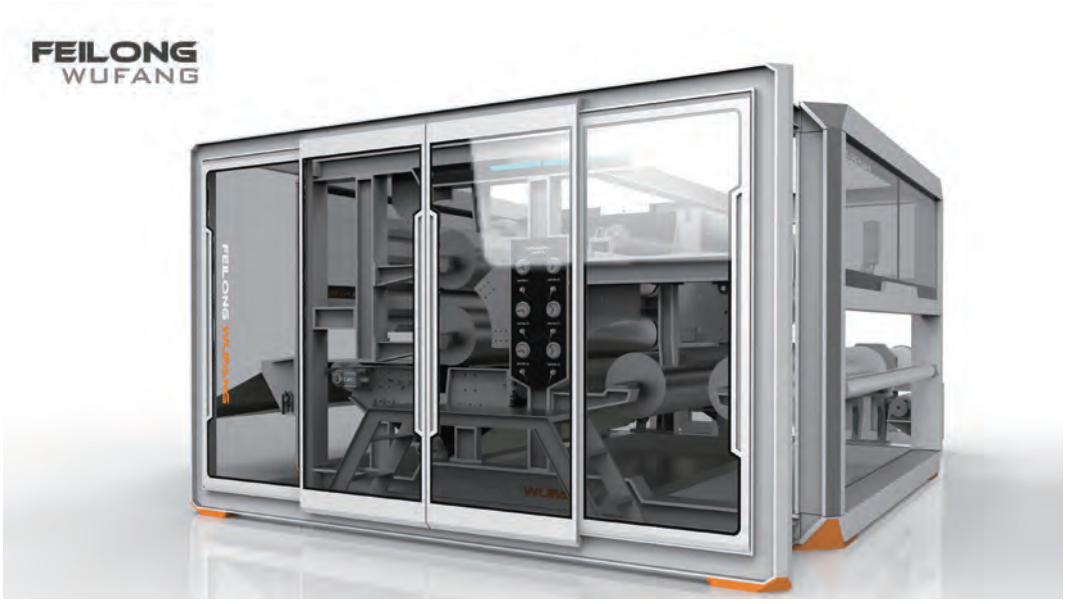
直列式混开棉机组
In-line mixing opener



WF923边料开松机
WF923 Leftover material opener

常州市锦益机械有限公司
CHANGZHOU JINYI MACHINERY CO.,LTD

地址：江苏省武进区雪堰镇潘家工业区潘南路1号
Address: No. 1 Pannan Road, Panjia Industrial area, Xueyan Town,Wujin District, Changzhou, Jiangsu, China
电话(Tel)：0519-86543565　Http: //www.jinyimachinery.com
传真(Fax)：0519-86543082　Emai: info@jinyimachinery.com



高效水刺机组
High-efficient spunlace units

机器宽幅：2.5M、3.5M
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 boards, four boards

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

地址：江苏省常熟市支塘镇任阳晋阳西街125号
邮编：215539
ADD.: No.125, Jinyang West Street, Renyang, Zhitang Town, Changshu City, Jiangsu Province, P.R. China 215539

第七届亚洲过滤与分离工业展览会

The 7th Filtration & Separation Asia

第十届中国国际过滤与分离工业展览会

The 10th China Internationl Filtration & Separation Exhibition

2018.12.05-12.07

上海新国际博览中心

Shanghai New International Expo Center (SNIEC)

上海浦东新区龙阳路 2345 号

www.fsa-expo.com

微信二维码 关注我们，掌握更多资讯！

主办单位：
ORGANIZED BY

CFS
中国技术市场协会过滤与分离专业委员会
CHINA FILTRATION & SEPARATION SOCIETY (CFS)

CNTA
上海希达科技有限公司
CNTA SCIENCE & TECHNOLOGY CO., LTD.

UBM
博闻中国
UBM CHINA

第十八届上海国际非织造材料展览会

The 18th Shanghai International Nonwovens Exhibition (SINCE)

拓展全球最大非织造材料市场!
亚洲最大的非织造布展览会!

2019年11月

中国 · 上海

www.since-expo.com

主办单位

中国技术市场协会 (CTMA)
上海希达科技有限公司 (CNTA)
博闻中国 (UBM)

上海希达科技有限公司

博闻中国

汕头三辉无纺机械厂有限公司
SHANTOU SANFAI NONWOVEN MACHINERY FACTORY Co., LTD.

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^2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。

主要产品 MAIN PRODUCTS

宽幅高频针刺机
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
(Double Boards) High Frequency Velour Needle Punching Units

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

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

广东三辉无纺机械有限公司
GuangDong SanFai Nonwoven Machinery Co., Ltd.
地址: 广东省揭阳市高新技术产业开发区德山街
邮政编码: 515527
Add.: DeShan Street, High-Tech Industrial Development Zone, JieYang 515527 P.R.China
Tel: +86-663-3564 168
Fax: +86-663-3564 128

汕头三辉无纺机械厂有限公司
ShanTou SanFai Nonwoven Machinery Factory Co., Ltd.
地址: 广东省汕头市龙湖万吉工业区海河路18号
邮政编码: 515065
Add.: No.18 HaiHe Road, WanJi Industrial Zone, LongHu District, Shantou 515065 P.R.China
TEL: +86-754-8834 2168
FAX: +86-754-8834 2128
Email: sf@sanfai.com
http: //www.sanfai.com

专业生产非织造布

发展高新技术产品，确立行业主导地位，实现规模经济

主营产品：

- □ 涤纶短纤维系列
- □ 短纤聚酯胎无纺布系列
- □ 针刺土工无纺布系列
- □ 长丝聚酯胎无纺布系列
- □ 各类针刺、热轧无纺布系列
- □ 过滤材料无纺布、热轧压光无纺布、PET纺粘无纺布系列

“中国生产各种无纺布大型企业之一”

力创优质品牌 铸造一流企业

江阴市江海非织造布有限公司
JIANGHAI NON-WOVEN FABRIC CO., LTD.

地址：江苏省江阴市徐霞客镇环西路工业园江海路2号
电话：0510-86531731；86530859；13606168965
传真：0510-86531980；邮编：214407
E-mail：jyfangshui@163.com；13606168965@163.com
Http://www.jianghai-group.com；www.shimaoqing.cn.alibaba.com

伟成机械
WEICHENG

高速梳理机

High Speed Carding

工作宽度:2500mm 3500mm　锡林直径:1500mm
出网速度:≤120m/min

常熟市伟成非织造成套设备有限公司

地址：江苏省常熟市支塘镇任阳经济开发区

电话：0512-52581266

网址: www.chinaweicheng.cn

伟成机械

WEICHENG

高速铺网机

High Speed Cross Lapper

机幅:输入≤2500mm 输出2500-6000mm

铺网速度:≤120m/min

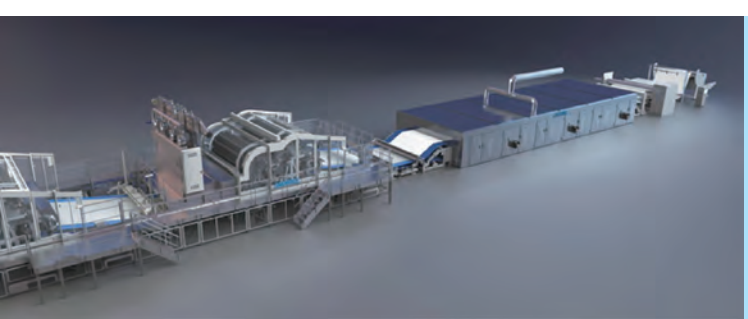
CHANGSHU WEICHENG NONWOVEN EQUIPMENT CO.,LTD.

ADD: Renyang Economic Development Zone, Zhitang Town, Changshu, Jiangsu

TEL: 0512-52581266

WEB: www.chinaweicheng.cn

CONTENTS



目录

订阅表

Nonwovens Asia Magazine-Asia's Only Regional Bilingual Magazine for the Nonwovens Industry
《亚洲非织造材料工业》杂志—亚洲唯一的非织造材料双语杂志

Sponsor 主办：
Asia Nonwoven Fabrics Association 亚洲非织造材料协会
Publisher 出版人：
Wolfram Diener 狄沃夫
UBM Asia Ltd 亚洲博闻有限公司

Co-Sponsoring 协办：
CNTA 全国非织造技术协会
Hong Kong Nonwovens Association 香港无纺布协会
All Nippon Nonwovens Association 日本不织布协会
Korea Nonwoven Industry Cooperative(KNIC) 韩国非织造材料同业公会
Taiwan Nonwoven Fabrics Industry Association(TNFIA) 台湾区不织布工业同业公会
Yangtze River Delta Nonwovens Industry Association
上海长三角非织造材料工业协会
Support 支持：
"Japan Nonwovens Report"Japan 日本《不织布情报》杂志
"Nonwovens Review"Japan 日本《不织布市场与技术》杂志

Editorial Advisory Board Director
编辑顾问委员会主任
Wang Yanxi 王延熹

Editorial Advisory Board
编辑顾问委员会
Tai Rong Ji 戴荣吉
Hiroaki Kanai 金井宏彰
C. S. Huang 黄清山
Pyung Kil Ku 具平吉
Norman C.C. Chiu 邱正中
Hideo Tsuchiya 土谷英夫

Editor In Chief 总编
Xiang Yang 向阳

Marketing/Circulation Manager
市场行销及广销部经理
Denny Jin 金振华

Editor 编委会
Yaida Osamu 矢井田 修(日本)
Kim Jung Kun(韩国)
Noriyuki Takatani 高谷规行(日本)
Zhao Yao Ming 赵耀明
Nature Yang 杨自然(香港)
ChihPing Huang 黄稚评(台湾)
Huang Sheng Fu 黄声福(马来西亚)
Chen Zhe 陈喆
Chen Hong Kuen 陈弘坤(台湾)
Jin Xiang Yu 靳向煜
Qian Xiao Ming 钱晓明
Zhang Yu 张瑜
C. Y. Wang 黄祖荫(澳大利亚)
Xue Hanlin 薛晗林(澳大利亚)
Allen Tsui 徐孝平(香港)
Ma Jinghua 马敬华

Advertising Enquiries

America 美国
Coco Yang
Tel: +1 516 562-7824
Fax: +1 888 522-5989
Email: coco.yang@ubm.com

China 中国
Zhang Bo 张波
Tel: +86 21 64641527
Fax: +86 21 64812993
Email: zhangbo@cnta.org

Asia Pacific & Europe 亚太区及欧洲
Denny Jin
Tel: +86 21 6157 7205
Fax: +86 21 6157 7299
Email: denny.jin@ubm.com

korea 韩国
Enoch Jeong
Tel: +82 2 2209 5885
Fax: +82 2 432 5885
Email: Enoch.jeong@ubm.com

Japan 日本
Jennifer Nie
Tel: +86 10 5765 2801
Fax: +86 10 5765 2999
Email: Jennifer.nie@ubm.com

Nonwovens Asia is published by UBM Asia Ltd., 17/F China Resources Building, 26 Harbour Road, Wanchai, Hong Kong
Tel: +852 2827 6211 Fax: +852 3749 7342 Email: Wolfram.Diener@ubm.com

南海·九江
JIUJIANG NANHAI CHINA

中国医卫用非织造产品示范基地
CHINA MEDICAL & HYGIENIC NONWOVEN FABRIC PRODUCT DEMONSTRATION BASE

NH-MHPA
南海区医卫用产品行业协会

中国医卫用非织造产品示范基地

医卫用为核心

生活用为重点

工业用为辅助

- 龙头企业引领，共筑医卫用魔幻版图、无纺布全产业链闭环
- 功能分区明确，基础配套成熟，形成原材料、配材、成品加工、物流仓配的完整链条
- 立体跨越式深度发展，横态完善医卫用非织造产品成品下游生态链，纵态融合商贸+教育+旅游等关联产业
- 重点面向国内外医卫用非织造及纸品优质企业，同时向机械装备制造、高端工业环保滤材、汽车内饰配件等领域拓展

中国医卫用非织造产品示范基地

地　址：广东省佛山市南海区九江镇启航大道
联系人：崔泽文
电　话：+86(757)86582288，+86(0)13925954370
邮　箱：jjz_zsj@163.com
网　址：http://www.nhjjw.cn

佛山市南海区医卫用产品行业协会

地　址：广东省佛山市南海区九江镇启航大道
联系人：黎露芸
电　话：+86(757)86918700，+86(0)13928692022
传　真：0757-86910577
邮　箱：nhmhpa2014@163.om

Business News

The Brief Introduction about ANEX'2018

ANEX'2018 was taken place at Big Sight Tokyo, Japan, June 6-8., Prior to this exhibition, the nonwoven working group of the 38 Technical Committee of the International Standardization Organization(ISO TC38/WG9), held a conference about the final draft for ISO 9002 nonwovens definition and testing methods on June 4th in Tokyo.

ISO TC38/WG9 working group experts

ANEX 2018 Asia international nonwovens exhibition overview

ANEX organized by Asia Nonwoven Fabrics Association (ANFA), is conducted every three years. ANEX 2018 is organised by the Asia Nonwoven Fabrics Association in conjunction with All Nippon nonwovens associations.

Bringing together key players from every dimension of the innovative world of nonwovens, ANEX is the industry's largest global meeting place, More than 30,000 visitors from around the world on Tokyo over three days to seek competitive insights, learn the latest technologies, and take advantage of those all-important networking opportunities. A huge array of products and services was be presented by over 747 exhibitors, More than 60% exhibitors from outside the host country and 40% exhibitors from China. ANEX exhibition integrates product display, technology and market exchanges, and releases the global non-woven material industry development information in 2017 and nanofiber technology seminar, which makes exhibitors and visitors understand the development frontier of world nonwoven technology and market.

Opening ceremony of Asia nonwovens Exhibition (Tokyo, Japan)

At present, the global nonwovens market has formed the three pillars of the America, Europe and Asia. The proportion of nonwoven materials in North America, Europe and Asia accounted for more than 90% of global output. In 2017, nonwovens production in North America and Europe increased slightly, producing 2.387 and 2.544 million tones respectively. Japan's nonwovens production reached 34 2000 tons in 2017. South Korean nonwovens production reached 228 000 tons. India and Indonesia in 2017 nonwovens production reached 410 000 tons and 91 000 tons respectively. China as the largest producer, consumer and exporter of nonwovens, the production of nonwoven materials continued to increase with double digit growth in 2017 at an annual growth rate of 13.65%, to 3.705 million tons and higher than GDP growth rate.

The Global Nonwovens Summit (GNS Forum) was held on the afternoon of June 6th

1) Mr. KOMURO, Secretary General of ANFA, made the report on "Asia Nonwovens Production in 2017";
2) Mr. Morris Collins, Director of Member Relations of INDA, made the report on "North America Nonwovens Markets Statistics and Trends";
3) Mr. Jacques Prigneaux, Market Analysis and Economic Affairs Director of EDANA, made the report on "The European Nonwovens Industry";
4) Mr. Xiang Yang, CNTA Chairman, made the report on "The Present & Trend of China Nonwovens Industry ";
5) Mr. Samir Gupta, Managing Director, Business Co-ordination House (BCH), India, made the report on" Nonwoven Market in India";

GNS2018 attracted more than 300 representatives around the world, and the delegates received the latest nonwovens information in the world.

Morris Collins

Jacques Prigneaux

Xiang Yang

Samir Gupta

Business News

Chinese domestic exhibitors Nanhai Beautiful with elastic spunbonded nonwovens, Dalian Ruiguang SP wet composite nonwovens, Hangzhou Nbond nonwovens, Changshu Feilong 6600mm high speed four needlepunched and high speed carding machines, Anhui Jinchun super fiber nonwovens, Guangdong Hasen wipes, filter products of Kunshan Yichen, CHTC Jiahua's innovative products such as "three anti", hydrophilic nonwovens, Shantou Sanfai needllepunched machine, Feilong spunlaced nonwovens machines and Suhou Meson nonwovens have all attracted a large number of potential customers.

Visitors, Customers and exhibitors have conducted in-depth exchanges and interactions, learned about the frontier technology of the industry, and discussed the possibility of mutually beneficial cooperation.

During the exhibition, ANEX Conference was be held in the Big Sight, Tokyo, from 6-8 Jun. the exhibition held 34 special lectures, including 33 Seminars, such as Academic, Mechanical-equipment, Medical/hygiene, Environment, Automotive and so on, as well as related nanofibers.

According to the content showed by the exhibitors, it can be seen that nonwovens are still moving towards functional, cost-effective, safe, environmentally friendly and sustainable development in all areas of application. The development trend of nonwoven equipment is still large, high speed and high production. The production of single line is increasing, and it is gradually becoming intelligent. The production enterprises and users pay more attention to the energy saving of equipment and the recycling of resources.
(Xiang Yang, CEO of ANFA Working Committee)

2018 ANFA Provisional Board Meeting

2018 ANFA Provisional Board Meeting was held on June 5, 2018 in Tokyo Bay Ariake Washington Hotel, Japan.

32 persons, the Honorary Chairman, Chairman, Vice Chairman, Director, Proxy for Director, Liaison office Secretary, ANFA Secretary General, Executive Office of Working Committee, participated the meeting.

Mr. Huang Chin-San, the Chairman of ANFA, gave a memorial speech for the late Mr. Chen Hung Kun, followed by offering a silent prayer for 1 minute. Mr. Huang stated Welcome and opening speech.

Then, the Agendas about ANEX 2021 Venue, 2018 ANFA General/Board Meeting, 2019 ANFA Conference & General/Board Meeting were discussed and decisions as follows:
1) Shanghai, China was selected as a venue of ANEX 2021 with unanimity.
2) 2018 ANFA General/Board Meeting will be held on 1-2, Nov. 2018 in Bali Island, Indonesia.
3) 2019 ANFA Conference & General/Board Meeting will be held on convenient time in New Delhi, India.

Business News

ANDRITZ presents its cutting-edge nonwovens solutions at ANEX 2018

GRAZ, APRIL 27, 2018. International technology Group ANDRITZ will be presenting its innovative nonwovens production solutions and textile finishing technologies for the Asian markets at ANEX 2018, to be held at the Big Sight Exhibition Center in Tokyo, Japan, from June 6 to 8 (East Hall, Booth 2430). As one of the world market leaders in advanced technologies for air-through bonding, needlepunch, spunjet, spunlace, thermobonding, and wetlaid, ANDRITZ offers customized and unique solutions as well as excellent service to meet the individual requirements of its customers.

STATE-OF-THE-ART TECHNOLOGIES FOR THE HYGIENE MARKET

ANDRITZ offers tailor-made solutions and technologies for nonwovens producers focusing on the hygiene market:

- Nonwovens calenders for applications in thermobonding, embossing, compacting, lamination, or perforation
- Spunjet soft technology to soften the spunbond fabric
- Spunlace lines for diaper back-sheets used for premium quality diapers and leg cuffs
- Air-through bonding lines for best softness in acquisition distribution layers and top-sheets. With the ANDRITZ flat oven, customers benefit from high production capacity and high-performance fabrics from 16 to 80 gsm, produced with bicomponent fibers. The CETI European Institute in Lille, France, recently installed an air-through bonding oven from ANDRITZ. Customers are welcome to visit and conduct trials.

ANDRITZ also leads the face mask market for skin care with its lightweight spunlace crosslapped lines for nonwovens from 30 to 45 gsm, using such raw materials as cotton, cellulose, and blends thereof. Customers benefit from web uniformity, fabric stability, and low elongation. The skin care mask market is growing rapidly in many parts of the world, especially in Asia, but also more and more in Europe.

WETLAID TECHNOLOGY TO REACH NEW MARKETS WITH ADDED VALUE

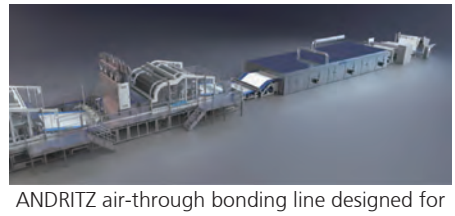
The ANDRITZ neXline wetlaid opens the door to niche market manufacturers, offering products made from special fibers such as aramid, carbon, micro-glass, and other high-tech fibers, and is the right choice for end uses in the automotive, aerospace, agricultural, construction, medical/hygiene, and household sectors. Numerous options are available to meet individual needs.

Moreover, the Wetlace™ technology provides unique technology for outstanding performance in the production of flushable wipes. It combines the ANDRITZ webforming solution with ANDRITZ hydroentanglement units, optimizing the wet strength of wipes for use and rapid disintegration when flushed.

ADDED VALUE WITH ANDRITZ IIoT SOLUTIONS

The digital ANDRITZ technologies combined under the Metris technology brand reflect the very latest state of the art in the IIoT/Industry 4.0 sector and provide comprehensive support to customers in achieving their production and corporate goals in terms of increasing the efficiency and profitability of plants, optimizing the use of resources, avoiding breaks in production, and achieving highest product quality. The innovative ANDRITZ digitalization solutions also use highly user-friendly features, such as easy control via smartphone, tablet PC, or smartglasses.

The ANDRITZ team is looking forward to meeting you at ANEX to show you how to achieve smooth and modern production operations (booth 2430).



ANDRITZ air-through bonding line designed for hygiene product processes

ANDRITZ neXline wetlaid

ANDRITZ to supply a complete needlepunch line for geotextiles to Manifattura Fontana, Italy

Business News

GRAZ, FEBRUARY 2018. ANDRITZ has received an order from Manifattura Fontana, based in Valstagna, Italy, and part of the Belgian technical textile company Sioen Industries, to supply a neXline needlepunch eXcelle line for the production of geotextiles. Start-up of the line is scheduled for October 2018.

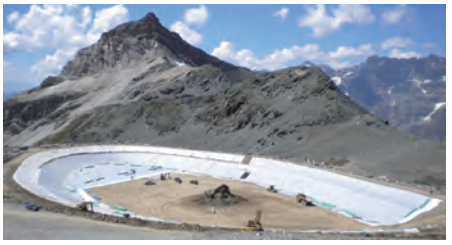
The scope of supply includes all of the machines from opening and blending to an automatic packaging system. The line incorporates cutting-edge ANDRITZ technologies and equipment, such as:

- a TCF-X high-capacity chute feed capable of processing long staple fibers
- an eXcelle card with 3.5 m working width
- the state-of-the-art ProDyn and Isolayer systems for weight evenness
- high-speed needlelooms with the innovative Zeta drafters to fine-tune tensile strength parameters and boost the production capacity for lightweight fabrics.

For the first time in Italy, the line will feature air-through bonding capabilities in combination with calendering. It is targeted to become the most productive line in Europe.

Manifattura Fontana joined Sioen Industries, a publicly listed Belgian company specialized in technical textile solutions, in 2016. It has been manufacturing nonwoven geotextiles from synthetic fibers for nearly 50 years and is developing new solutions and improved products for separation, filtration, protection, drainage, and reinforcement. Manifattura Fontana is a leading company in the global geotextile markets and provides its customers with added-value geotextiles for many applications, such as the construction of roads, railways, reservoirs, dams, and tunnels, as well as for earthworks, foundations, erosion control, drainage, waste disposal, or containment.

ANDRITZ high-capacity neXline needlepunch eXcelle line for production of geotextiles



Manifattura Fontana nonwoven geotextile

Unique Zeta drafter for perfect control of the web

Robust needlelooms for consistent quality

Next stop for SAF™ – ANEX

It has been a busy start to the year for SAF™ (Super Absorbent Fibre) manufacturer Technical Absorbents and it is now gearing up to exhibit at one of the world's largest nonwovens exhibitions, ANEX. The three day event will take place in Tokyo between 6-8th June 2018 and the company is inviting people to explore SAF™ on its stand 534.

ANEX is organised by the Asian Nonwoven Fabrics Association in conjunction with nonwovens associations across Asia and is

Business News

held every three years. It is an important event for Technical Absorbents, which is owned by China National Bluestar (Group) Co, Ltd., and a valuable platform to help raise awareness of its SAF™ technology in the Asian markets.

"This event is an ideal opportunity for us to educate the region's growing nonwovens industry about the benefits of SAF™ fibre and fabrics," explains Commercial Director Paul Rushton.

At the beginning of 2018, Technical Absorbents unveiled a new look for the SAF™ branding and this will be prevalent on the stand. The team will have with them different SAF™ fibre samples – long and short staple – a selection of SAF™ fabrics, including its latest low basis weight and washable grades, and will also have experts on hand to discuss potential bespoke development projects with visitors.

"Our new campaign is explore SAF™," continues Paul Rushton. "We are asking people with an interest in absorbents, or those who work on projects that utilise such technology, to come and learn more about SAF™ while we are at ANEX. SAF™ has different properties to other super absorbents and as such can be handled and processed differently. It may also perform differently and provide additional benefits depending on the nature of the application."
* To arrange a meeting in advance, please email info@exploreSAF.com
* To learn more, please visit www.exploreSAF

VELCRO companies announces availability of trusted fastening solutions to Chinese diaper manufacturing market

Designed for Disposable Diapers and Other Personal Care Items, Soft Fasteners Create a Reliable and Durable Closure

APRIL 18, 2018 – Velcro Companies, the category inventor of hook-and-loop fasteners, today announced the availability of its trusted closure solutions available to the Chinese market. Designed specifically for use in diapers, training pants and other disposable personal products, the new high-tech hook fastening solutions can easily integrate into existing manufacturing processes and provide consumers with dependable and high-performance closures.

New to the Chinese market, plastic hook 09A and 12A mate with VELCRO® Brand nonwoven loops to create a strong connection that keeps diapers and other personal care products secure and in place. The fasteners are designed for the unique needs of babies with extra soft, flexible and skin-friendly edges. They provide a comfortable alternative to traditional pre-combined closure solutions.

"For decades we have been a trusted partner for diaper and personal goods manufacturers across the globe who rely on our soft, easy-to-use solutions to provide customers extra value," said Frank Liao, APAC President, Velcro Companies. "We are pleased to offer our high-performance closures to Chinese manufacturers seeking a local partner.

Velcro Companies provides strong local service through its service through APAC-based sales force, technical service teams and local production.

Velcro Companies is a technology-driven, global organization providing fastening solutions that solve problems in simple, elegant and surprising ways for businesses and consumers around the world. We have a heritage of innovation spanning more than 50 years and own over 400 active patents and numerous trademarks, including the VELCRO® trademark, which is registered throughout the world. We develop and deliver solutions for customers through an integrated production and service system that includes manufacturing locations in the United States, Belgium, Canada, Mexico, Uruguay, Spain and China and sales offices around the world. To find out more about our company, visit www.velcro.com.

<<< continue 15

Kuraray and Calgon Carbon have complementary products and services, and the combined organization will continue to focus on the highest quality activated carbon and filtration media products, equipment, and services. The combination will strengthen Kuraray's focus on contributing to human health and the sustainability of the environment through innovative and high quality products around the world.
(Source from: "www.kuraray.com")

Market News

The high lights of link to innovative future New technology, Products and Process

Freudenberg Performance Materials and Japan Vilene Company

Freudenberg Performance Materials and Japan Vilene Company were presenting solutions for the energy, medical and automotive markets at ANEX.

Energy

Freudenberg's nonwoven electrodes, with a unique three-dimensional fiber structure, were specially developed to improve liquid circulation in redox flow batteries. The electrodes feature a flexible design that enables them to be adapted to specific customer requirements.

Meanwhile, Japan Vilene Company's Ni-MH HV battery separators are characterized by high-temperature resistance, excellent safety performance, and rapid rate of charge/discharge, enabling increased vehicle range.

Medical

Freudenberg Performance Materials has now entered series production of ISO13485-compliant laminates comprising hydrophilic PU foams and hydroactive nonwovens. The combination of these two components, foam and nonwoven, can achieve significant improvement in the ability of wound dressings to absorb and retain exudates.

"Scaffolene"- Freudenberg's nonwoven fabric made from bioresorbable polymers, is extremely versatile in both characteristics and applications. Flexible and tear-resistant when dry, it remains stable even when wet, maintaining its structure and avoiding clumping. During operations, the material can be easily and securely positioned in the right place in the body. The fabric eventually breaks down inside the body of its own accord, rendering further treatment to remove the dressing unnecessary.

Japan Vilene Company's transdersal backing materials are both elastic and offer beneficial physical properties. By achieving superior elasticity in both directions, they provide comfort to the wearer and a soft-touch feeling.

Automotive

Freudenberg is presenting acoustic pads that provide outstanding sound absorption inside vehicles. The lightweight pads help customers to save weight substantially and are highly cost efficient. The pads are suitable for a wide variety of application in the car such as door panels, headliners, trunk areas, wheel-houses and so on.

Japan Vilene Company's headliner facings improve wellbeing inside vehicles. Their good formability makes the moulding process easy.

ExxonMobil Chemical

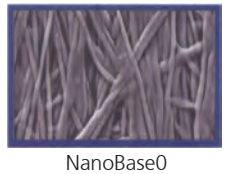
ExxonMobil Chemical offers an impressive range of polymers to help customers meet hygiene product innovation needs, These include ExxonMobil™ PP resins, Vistamaxx™ performance polymers, Achieve™ advanced PP, Exceed™ and Enable™ performance polymers and Escorez™ tackifiers. ExxonMobil developed ExxonMobil™ polypropylene can be used in the manufacture of soft, tenacity, barrier protection nonwovens.

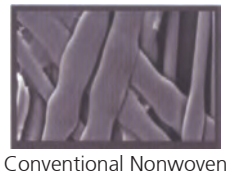
MITSUBISHI PAPER MILLS LIMITED

NonaBase0

Mitsubishi wet-laid nonwoven has unique feature. NonaBase0 is an nonwoven substrate for battery separator. It is a polyester nonwoven with high heat resistance and high strength regardless of its thinness, thank to the use of ultra fine fiber.

Features
*** Thinness
*** High Strength


NanoBase0


Conventional Nonwoven

NanoBaseX

NanoBaseX is a ceramic coated nonwoven separator, which is suitable for Lithium Ion Batteries. Higher safety and longer cycle life will be realized with NanoBaseX.

Market News

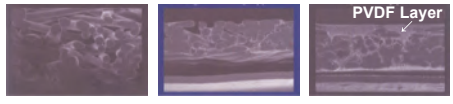
NanoBaseX

Mitsubishi wet-laid nonwoven features:
*** Double-layer nonwoven, and combine different kinds of fiber according to your requirements.
*** Nonwoven products with uniform formation, high density and thin thickness are our specialty.
*** Various functions by using inorganic fibers.
*** 2 layer-structure of liquid filter provides high filtering efficiency, long lifetime and structural strength.
*** 4 color off-set printable nonwoven fabric with soft and luxurious feel.

MITSUBISHI PAPER's Products under Development

Polyphenylene sulfide (PPS) nonwoven
Features: High heat resistance, Excellent matching for membrane and other materials, with superior uniformity and chemical resistance.

■ Cross section image of PPS nonwovens (×600)

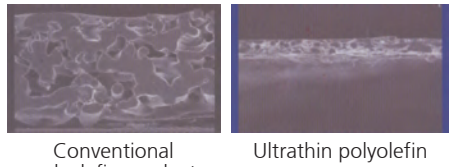


low density type　High density type　example appliction

Ultrathin Polyolefin Nonwoven

*** High chemical resistance
*** Light weight
*** Flexibility
*** Paper making
*** Material designing
*** Processing technology
Ultrathin polyolefin nonwoven with superior uniformity and chemical resistance

■ Cross section image of polyolefin nonwovens (×600)

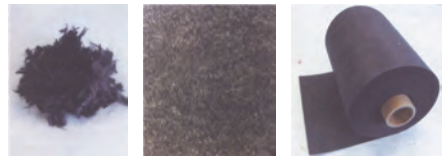


Conventional polyolefin product　Ultrathin polyolefin nonwoven

Application
*** Liquid filter
*** Air filter
*** Electronics device

Carboplus/Carboplus Repro

Carboplus/Carboplus Repro is a range of nonwovens made from virgin/recycled carbon fibers, that generate cost and environmental benefits. Carboplus/Carboplus Repro can be use for fiber reinforcements of carbon fiber reinforced plastics (CFRP).



Recycled carbon fibers　Carboplus (Enlarged Image)　Carboplus (Roll product)

Kurashiki Textile Manufacturing

Kurashiki Textile Manufacturing is a pioneer of nonwoven manufacturing and has been making the history for more than 60 years.

Its nonwoven business consists of diversity of fiber material selection, composite technology, functional processing technology (deodorizing,photocatalytic and water proof & breathable professional technologies). The high quality control standards allow it to develop products for covering wide range of fields such as industrial materials, medical& hygenic materials, civil engineering and construction materials, lifestyle materials.

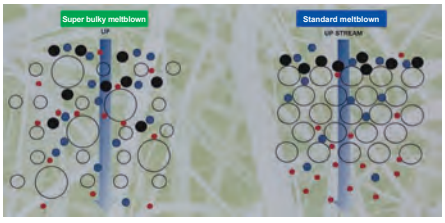
In keeping with the slogan "Friendly to people, friendly to nature", Kurashiki contributes to improving the global environment as well as people's living environment.

TAPYRUS Co., Ltd. Japan

TAPYRUS's meltblown nonwovens

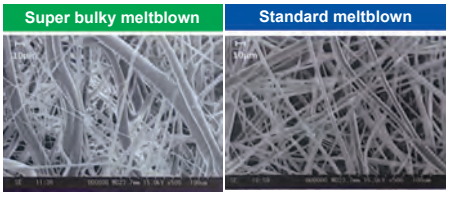
TAPYRUS's meltblown nonwovens Special Use Filter Media nonwovens with high basis weight and super coarse fiber and bulky is better media for high viscosity filtration. Prolonged life of filter cartridge by using as substitute for Spunbond nonwovens. High basis weight meltblown increases dust holding capacity similar to depth filtering effect.

Market News

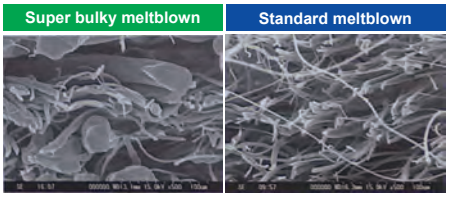


Long Life Filter Media with super bulky grade: mixture of fine fibers and coarse fibers. Super bulky meltblown can extend filter lifetime by dispersion effect of capturing particles.

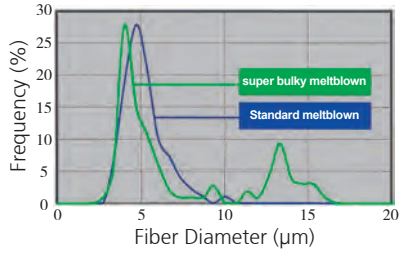
SEM - Surface



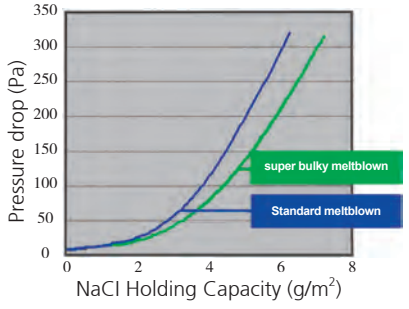
SEM - Cross section

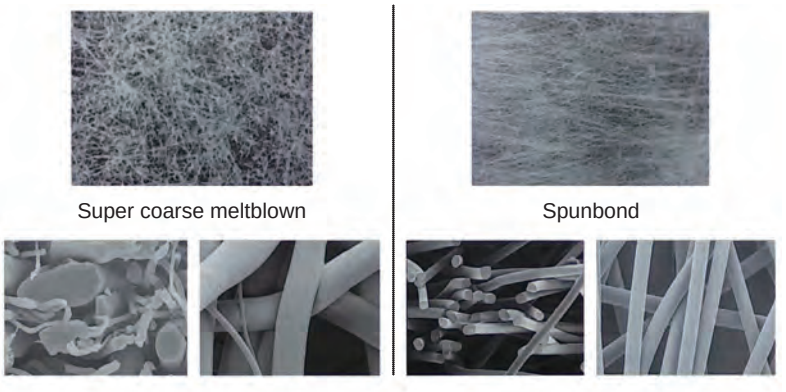


Fiber diameter distribution



Filteration laoding test





High basis weight meltblown: similar to depth effect increases dust holding capacity

TAPYRUS tailor-made Meltblown Nonwovens's features:
***Fiber cliameter: 0.4μm -50μm
*** Basis weight: 7g/m^2-400g/m^2
*** Mean pore size: 10μm-50μm
*** Soft texture and well drapenese
*** No binders

Teijin

Teijin's PET wet-laid nonwoven for FO membrane filter

Self hydrating water filter membrane based on the forward osmosis technology. PET based wet-laid nonwoven technology enables higher hydration speed with high contamination rejection rate.

LED custom nonwoven

With Teijin's two dimension transmission technology, Teijin developed LED custom nonwoven. On the two dimension power supply sheet it take free position and easy attachment and desorption for various application.

Nanofront® Filter Cartrideges

Teijin's ultrafine fiber "Nanofront®" nonwoven fabric is used as a filter media for liquid filter cartridges. With extremely thin and dense filter media, Teijin realized high flow rate, low pressure loss, high precision and long life compared with conventional products. Teijin will contribute to quality improvement and cost cut of various liquid products for example, slurry and paste used at the time of manufacture of state–of-the–art electronics products.

Polishing pad

PU-impregnated and pore-rich nanofiber (diameter=700nm), Nanofront® nonwoven enabled both polishing rate and evenness.

V-Lap® bedding

The bedding is made of TEIJIN"V-Lap" which is vertical fiber structure. Teijin supports customers' high quality sleep by the products utilizing high cushion property and breathable of "V-Lap".

Wiping products with modified cross section fiber

With our modified cross section fiber, Teijin improved scrubbing efficiency of the nonwoven.

Market News

The Facemask sheet for next generation
This use "Nanofront®" nonwoven fabric adhesion double than a general nonwoven fabric.

WARMAL®

"WARMAL®" stays warm with far-infrared rays. "WARMAL®"keeps far-infrared effect after washing. Teijin can offer not only staple fiber but also nonwoven.

Ultrafine microfiber for wet-laid nonwoven

PET microfiber with 0.1dtex or less fineness, developed by direct spinning technology. Finest selections, keeping highest quality standards and unmatched fiber dispersion. Thin and higher, density structure expands possibilities for new applications of wet-laid nonwoven.

Fiber for airlaid nonwoven

Good dispersion fiber for airlaid nonwoven: Teijin can offer wide varieties of short cut bi-co fiber for airlaid nonwoven. Teijin has integrated development system from polymer, fiber, nonwoven, to products.

Conjugated fiber nonwoven for air through

Teijin is supplying PET/PE conjugated fiber for air through in hygiene market. Teijin shows heteromorphic fiber, PP fiber and the nonwoven ton strengthen bulkiness, softness and liquid permeability.

ECOPET®/Bio PE fiber for air through

Teijin offers "ECOPET®"/Bio PE conjugated fiber for air-through nonwovens to take care of environmentally friendly.

Teijin can offer Aramid Fiber:

"Technora®"high tenacity fiber
"Twaron®"high tenacity fiber
"Tejinconex®" flame & heart resistant fiber

Antimony-free PET short cut fiber

Teijin's stand-alone technology enabled PET fibers with no use of antimony as polymerization catalyst.

Aerotop®·Octa®

"Aerotop®" is high hollow ratio and fine denier staple fiber. General staple fiber has 25-30% hollow ration, but "Aerotop®" has 40% hollow ratio. "Aerotop®" has high insulation value and soft touch. "Octa®"has hollow and 8 fins. "Octa®" is expected improvement of scrapping for wiping application.

PTT fiber: SOLOTEX®

Soft, good cushioning, and eco-friendly polytrimethylene terephthalate (PTT) fiber "SOLOTEX ®". Teijin can offer not only PTT single component fiber, but also conjugate fiber with PET or PE, for variable properties.

Water/moisture absorbing nonwoven

Super absorbent fiber"BELL OASIS®"nonwoven; application example: bedding, shoes, sweat absorption, and more. Teijin can sell both nonwoven and its products.

Sound Absorbent Nonwoven Sheet which corresponds EV's low-high frequency noise

By using super fine denier, polyester fiber, Teijin proposes the specialty nonwoven sheet which absorbs wide noise range of low-high frequency which mainly occurs from the drive unit especially EV's motor. The main features of such nonwoven sheet is not only high sound absorbing performance, but also it is able to mold and to laminate other materials such as spunbond nonwoven sheet, film, or etc.

Synthetic leather CORDLEY®

Teijin Cordley Limited is vertigal integrated manufacturer, specialized in development, production, marketing and sales of high-performance artificial leather. Teijin Cordley's products are adopted in high-end application in various fields, receiving high reputation for high-quality and excellent performances.

Shielding sheet for Electromagnetic wave

This sheet is plated on nonwoven fabric for using to block the electromagnetic noise in electronic equipment and parts. With the popularization of smartphones and tablets, the demand for light and thin shielding materials has increased, and in the future it will be expected to be used in hybrid vehicles for EV vehicles.

Protective material with sensing systems

Smart protective clothes are incorporated a business card case size sensing device. It is used in a nonwoven protective sheet with excellent barrier properties of "Nanofront®". This will reduce risk of heat stroke by predicting deep body temperature.

Nanofront® Air filter

Market News

Teijin's ultrafine fiber "Nanofront®"nonwoven fabric is used as a filter material for the air filter. By using nanofibers, it achieved high precision and high porosity at the same time. Excellent handling and disposal cost while maintaining filtration performance equal to or higher than that of conventional glass fiber products and longer life than membrane products due to deep filtration effect.

"Nanofront®" Bag-Filter
"Nanofront®"Bag-Filter is used in plants to collect dusts from production and emit clean air. In addition to high dust collecting effect, it is expected to realize energy-saving and long-life duration due to higher air permeability than conventional bag filter.

Functional Fibrous Filter Media for High-Rate Fiber Filtration
Small pieces of fibrous filter media can remove SS (suspended solid) in waste water. Functional fibrous fiter media made by the specific production method is excellent durability.

Application
*** High temperature waste water
*** Precision filtration is possible

Ultra-fine "Teijinconex®"Bag-Filter (Under Development)
Ultra-fine "Teijinconex®(*)"Bag-Filter is used in plants to collect dusts from production and emit clean air. In addition to high heat resistant property, it is expected to realize high dust collecting effect by using much finer fiber than conventional meta-aramid bag filter.
* World finest meta-aramid fiber with the diameter of 6μm developed by Teijin's unique technology

Kanai Juyo Kogyo Co., LTD.

Kanai Juyo Kogyo Co., LTD. Showed its high heat-resistant nonwoven fabrics, RF300 with high heat-resistant 300˚C, electromagnetic shielding material and so on.

NIPPON FELT

NIPPON FELT showed its needle punched with high basis weight and large diameter filter bags made of high temperature carbon fibers and other products.

MITSUBISHI CHMICAL CORPOTARION

MITSUBISHI CHMICAL CORPOTARION showed its high performance carbon fiber reinforced composite roller.

Features: Light weight, low deflection, higher production line speeds.

Toyobo

Toyobo has a series of products Films, Functional resins, Adhesives and coating materials, Functional filters, Membranes and modules, Medical equipment, Cosmetics ingredients, Cushion materials, Industrial fibers and civil materials and so on. This exhibition was on display BREATHAIR® is a washable cushion material with excellent durability. The fibers in BREATHAIR® are arranged in a complex three-dimensional structure.

BREATHAIR® has many characteristics: air permeability, cushioning characteristics, water permeability, durability, safe, antibacterial properties and kind to the environment.

Moreover, BREATHAIR® is widely used in hospitals and care facilities because it is easy to wash and also conforms to SEK standards* to limit the propagation of bacteria. Due to its excellent durability, BREATHAIR® has been adopted for use in the seats on N700 Series Shinkansen trains as well as other train lines and motorcycle seats.

Jocob Holm

Jocob Holm showed costom wiping solutions for every industry. Such as: Cleanroom, Hospitality & food, Manufacturing, Life sciences, Automotive, in particular Sontara beauty and aerospace grade wipes.

AsahiKASEI

AsahiKASEI showed: Bemliese™, which is made of cupro filament nonwoven sheet, using 100% cotton linter as a raw material, by their proprietary technology. Application: Skincare field, medical field, industry field, household goods field and so on.

Lamous™ is a microfiber suede material that Asahi Kasei has been producing since the

Market News

1980s, paying particular care and attention to the use of environmentally-friendly materials. In producing Lamous, Asahi KASEI was the first in the microfiber suede industry who selected recycled ultra fine microfibers and water based polyurethane for raw materials which are gentle to the nature. Lamous is characterized by its unique three-layered microstructure which allows free combinations of the raw materials (ultra fine microfibers and scrim), and enables a wide range of material development. In the future, Asahi's nonwovens will continue to provide competitive nonwoven products to the world with its unique technology.

Berry

Berry introduced the latest development about its 1st RF5 line invested in Asia and showed new products' samples.

Toray Group Nonwoven Fabric

Toray Group Nonwoven Fabric: AXTAR nonwoven fabric is composed of 100% polyester filament that features high strength and high density. These advantages make AXTAR an ideal material for wide-ranging uses, including industrial filter applications, embankment reinforcement and agricultural materials such as weed prevention sheets. AXTAR is also well-suited for construction materials such as house wraps and household packaging products.

Reifenhäuser

Reifenhäuser Reicofil, manufacturer of complete lines for the production of spunbonded, meltblown, and composite nonwovens, is expanding its product portfolio with a new line technology that was specially developed for entering markets with initially low capacity. With its new RF Smart lines, the company delivers a technology solution for the special requirements of such markets: Low investment risk, low capacity, high product quality.

With a maximum width of 3.2 meters, RF Smart lines are designed for an annual output of up to 10,000 tons. This makes customers respond quickly and flexibly to the market situation and enables them to produce smaller quantities cost-effectively. The maximum speed is 400 or 600 m/min, depending on configuration.

Shemesh

Shemesh is the leading enterprise to provide the production line of the wet wipes.

ANDRITZ

As one of the world market leaders in advanced technologies for air-through bonding, needlepunch, spunjet, spunlace, thermobonding, and wetlaid. International technology Group ANDRITZ will be presenting its innovative nonwovens production solutions and textile finishing technologies for the Asian markets. And show State-of-the-art technologies for the hygiene market.

Air-through bonding lines for best softness in acquisition distribution layers and top-sheets. With the ANDRITZ flat oven, customers benefit from high production capacity and high-performance fabrics from 16 to 80 gsm, produced with bicomponent fibers. Moreover, the Wetlace™ technology provides unique technology for outstanding performance in the production of flushable wipes. It combines the ANDRITZ webforming solution with ANDRITZ hydroentanglement units, optimizing the wet strength of wipes for use and rapid disintegration when flushed.

Kelheim Fibers

At ANEX 2018, Bavarian fibre experts Kelheim Fibers are presenting one of their latest developments for the first time to a broad range of expert visitor.

The Danufil QR is tailor-made for sue in disinfectant wipes, and area where up until now, viscose fibres-despite their excellent fluid handling properties-have not been able to establish a foothold.

This is because, due to their negative charge, standard viscose fibres bind the so-called 'quats'(quaternary ammonium compounds)-widely used disinfectant substances that are positively charged - so that they are no longer available for their actual disinfectant purpose.

Up to 80% of the effect can be lost this way. Now, the speciality fibre Danufi QR resolves the issue by reducing this undesired effect to less than 10%. With Danufil QR Kelheim broadens its already multi-faceted range of products, particularly in wipes and hygiene applications.

Market News

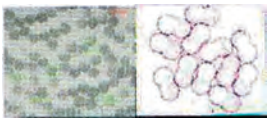
Another member of Kelheim's hygiene product family is the flat speciality fibre Viloft, which , with the current release of the newest flushability guideling (GD4) by INDA/EDANA ,because more important than ever. Viloft short –cut fibres enable the production of flushable wet wipes that disintegrate so rapidly in the sewage system that even the significantly stricter requirements of GD4 can be safely met.

Of cause, Viloft-as well as all the other fibres from Kelheim - is made completely of cellulose and is therefore fully biodegradable in a short time, which meets another requirement of the guideline and makes an important contribution to environmental protection.

Korea Institute of Industrial Technology

Korea Institute of Industrial Technology (KITECH) possesses:

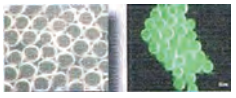
*** Compounding and Spinning Platform Technology (High functional Fibers)



Side - by - Side Type Bicomponent Fiber

Islands In the Sea Type Bicomponent Fiber

Slit Type Cross Section Fiber



Sheath - core Type Bicomponent Fiber

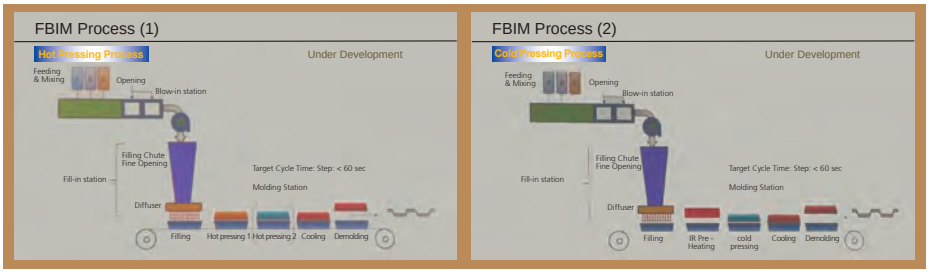
*** Nonwoven Platform Technology:
- Needle Punching /Thermal Bonding Nonwoven
- Spun-laid Nonwoven (Bicomponent Melt blown nonwoven)
- Spunlacing Nonwoven
- Wet laid Nonwoven

Its uniformity Technology, High bulky and high density Technology, Composite Technology used in R&D of Multifunctional Composite Nonwoven.

*** Textile Finishing Platform Technology (Surface Treatment-Plasma technology, Sputtering technology, Coating /Laminating)

*** Evaluation & Assessment (General purpose & Environmental Durability, Filtration & Separation, Chemical Analysis & Product Eco-testing)

During ANEX 18, KITECH introduced the 1 st, 2nd generation of Rotating Injection Fiber Process (controlled density distribution with different combinations of thickness) and his newly-developing Direct Molding Process-Fibre Blow- Injection Molding(FBIM).



(Xiang Yang, CEO of ANFA Working Committee)

Hayat Kimya establishes Pakistani subsidiary

Molfix diapers to be sold in the country

Hayat Kimya has established a Pakistani subsidiary to sell Molfix baby diapers and Papia and Familia paper goods in the country. The world's fifth largest manufacturers of baby diapers, the Turkish company will invest $150 million in the country, saying it has a huge potential for growth.

"Pakistan has a sentimental value for Hayat, because of the historical brotherhood of our countries," says CEO Hayat Kimya M. A. Kiðýlý. "Hayat Kimya has great confidence in Pakistan, following our initial investment in Pakistan, we project to continue our investment of $150 million."

Parent company Hayat group reports annual sales of $3 billion and has nine subsidiaries across the globe. Molfix, Papia and Familia are leader brands in Turkey, Iran, Russia, Nigeria, Egypt and Morocco and the company also has a strong export network in

Market News

other countries like Australia, Madagascar, Dominican Republic and Yemen, allowing its brands reach millions of homes in more than 100 countries.
(Source from: "www.convertingguide.com")

Indian company marketing oil absorbing mats

WellGro Tech's nonwoven mat can be reused up to 20 times

WellGro Tech, Chennai, India, has launched biodegradable nonwoven composite oil absorbent mats to help remediate oil spill accident s and other marine pollution. The non-synthetic, oil absorbent mats are devoid of plastics and can be reused multiple times. The company has tested the product in two leading research and testing laboratories in India.

Results show that as per ASTM standard, when tested using motor oil, the mat could absorb oil 13 times its weight and the cumulative absorption will be much higher, as the mats can be reused. According to the company, the same mat can be used at a minimum 20 times.

Tests undertaken using ASTM and AATCC standards show that the mat and the oil soaked mat degrade and show strength loss, an indicator of degradation.

Venkatakrishnan Ramanujan, president of WellGro Tech says the effort to develop environmentally friendly oil absorbent mats has been successful with positive third party tests carried out by two accredited laboratories. The company is focused on export markets, where the awareness of using biodegradable oil absorbent technologies is high.
(Source from: "www.convertingguide.com")

Tenowo to exit Indian JV

Supreme Nonwovens to be fully-owned by local owners

Tenowo GmbH, a wholly owned subsidiary of Hoftex Group AG, will sell its 49% stake in Supreme Nonwoven Industries Pvt. Ltd. to its Indian co-shareholders.

Supreme Nonwoven Industries Pvt. Ltd. is based in Mumbai and active in the field of the production of nonwoven fabrics. The sale of the investment is a consequence of the continuing strategic focusing of Tenowo GmbH and will have no impact on the balance sheet equity of Hoftex Group. The parties have agreed not to disclose the purchase price and the transaction is expected to be completed within 24 months after the conclusion of the purchase agreement.

Tenowo entered the agreement in 2006 with Supreme, a family-owned company with nonwovens several nonwovens operations in India. The agreement reportedly encompassed both industrial and interlining applications.
(Source from: "www.convertingguide.com")

Kuraray completes acquisition of Calgon Carbon

- Kuraray gains global presence in activated carbon and filtration media
- Calgon Carbon to operate as a separate subsidiary of Kuraray

As a separate subsidiary, Calgon Carbon will be reported as part of the Functional Materials Company of Kuraray, along with Kuraray's Carbon Material Business Division. The Functional Materials Company includes the Methacrylate Division and Medical Division.

Randy Dearth, Calgon Carbon's President and CEO, said of the completion of the merger: "This is an exciting beginning. For over 75 years, Calgon Carbon's products, technologies, and commitment to our customers were the driving force of our business. And now, when combined with the support of Kuraray, there is no limit to what we can achieve." Mr. Dearth and other members of the Calgon Carbon executive management team will continue in their roles after the closing of the transaction.

Masaaki Ito, Kuraray's Representative Director and President said, "Today, Kuraray takes its carbon materials business farther than ever before with the addition of a global focus on activated carbon, activated carbon services, and filtration media. We are delighted to have the Calgon Carbon team joining Kuraray. We believe that this complementary combination will enable significant synergies and growth opportunities, and we aim to further expand the business as one of our future core businesses."

>>> next 7

Market News

Face masks

ANDRITZ crosslapped spunlace line supplied to Phoenix, China, successfully reaches its full capacity

GRAZ, MAY 25, 2018. The crosslapped spunlace aXcess line supplied by ANDRITZ to Hangzhou Xiaoshan Phoenix Textile Co., Ltd. for its plant located in Xiaoshan (Zhejiang province) has successfully reached its full capacity. This line is dedicated to the production of lightweight products from 30 to 100 gsm for the wipes and hygiene markets. The production speed of this ANDRITZ spunlace line is up to 100 m/min.

The scope of supply included:
- the complete opening and blending machinery,
- two aXcess cards,
- a Profile crosslapper,
- a drafter,
- a Jetlace Avantage hydroentanglement unit, and
- a neXdry through-air dryer, including a neXecodry system for energy savings.

The ANDRITZ equipment supports Hangzhou Xiaoshan Phoenix Textile in further reducing operating costs thanks to various well-proven energy saving concepts.

Hangzhou Xiaoshan Phoenix Textile, established in 2001, is a fast-growing Chinese company specialized in the production of various textile products. In the nonwovens industry, it provides top-class wipes, face masks, and other hygiene products worldwide, with special focus on Japan, Europe, North America, and the Middle East.

ANDRITZ crosslapped spunlace line for the production of lightweight products

ANDRITZ successfully starts-up a neXline needlepunch line supplied to Autoneum, Mexico

GRAZ, MAY 30; 2018. ANDRITZ has successfully started up a complete neXline needlepunch line for the production of needlepunched velour felts for the automotive market at Autoneum's plant in San Luis Potosí, Mexico. The line has a working width of 4.4.m and produces fabrics from 300 to 800 gsm for carpet systems, inner dashes, and floor insulators.

The scope of supply includes a Dynamic eXcelle Link card and a crosslapper in combination with ANDRITZ technology for drafting and needling. ANDRITZ also supplied the process control equipment as well as the unique, closed-loop ProDyn system, thus providing continuous web monitoring and optimization of the end product. With the inline, double-velouring needleloom, model SDV-2+2, and a maximum speed of 10 m/m, the production capacity of the ANDRITZ needlepunch line is in excess of 1,200 kg/hr.

This order once again demonstrates the strong and long-term partnership between ANDRITZ and Autoneum. Autoneum already operates several ANDRITZ lines in Bloomsburg, PA, and Jeffersonville, IN, both USA, as well as several lines in Europe and Asia.

Autoneum, with headquarters in Winterthur, Switzerland, is a globally leading supplier in acoustic and thermal management for vehicles. The company develops and produces multifunctional, lightweight components and systems for interior floors and engine bays as well as the underbody. Customers include almost all automobile manufacturers in Europe, North and South America, Asia, and Africa. Autoneum operates 55 production facilities and employs more than 12,000 people in 25 countries.

ANDRITZ high-capacity neXline needlepunch eXcelle line for production of nonwoven technical felts

Autoneum's Di-Light based nonwoven carpet

Market Trends

Freudenberg Far Eastern Spunweb expands in Taiwan

New capacity will meet growing demand in the traditional automotive and carpet markets of Asia

Freudenberg Far Eastern Spunweb, a Freudenberg Performance Materials and Far Eastern Spunweb company, is planning to build an additional production line at the Tayuan Tao-Yuan site in Taiwan. This expansion of capacity will enable the company to meet growing demand in the traditional automotive and carpet markets of Asia.

With the new production line, Freudenberg will increase annual production of nonwovens in Tayuan Tao-Yuan by around 11,000 metric tons. "The expansion of our capabilities underscores our long-term commitment to Asia. We want to continue to support our customers in the automotive and carpet markets with innovative and sustainable solutions that will help them grow," comments Dr. Frank Heislitz, designated CEO of Freudenberg Performance Materials.

Freudenberg currently supplies these two markets in Asia with primary and secondary carrier materials for automotive carpet moldings and inlay mats, as well as dry running mats, carpets and carpet tiles. The high-performance materials are easy to form and thus contribute to economical processing. In addition, their high dimensional stability ensures a precise fit and they are extremely durable.

This capacity expansion will also enable Freudenberg to develop the company's regional position. "Asia is a very important market for us as a global player. Through our technologically leading solutions, we want to continue to grow with our customers in this region and at the same time make a significant technological contribution to their success," says Lin Gow Ming, general manager of Far Eastern Spunweb. Construction of the new production line is expected to be completed in 2020.
(Source from: "www.innovation intextiles.com")

Indian Government launches biodegradable sanitary pads

Economical san pro product launched on eve of International Women's Day

According to a report in the Times of India, the Indian government has introduced obiodegradable sanitary napkins, priced at Rs 2.50, or about 40 cents, per pad, on the eve of International Women's Day, which will be available at Pradhan Mantri Bhartiya Janaushadhi Pariyojana Kendras. They will be sold under the brand name Suvidha.

The sanitary napkins will be available in a pack of four pads for Rs 10, of $1.60 at more than 3200 Pradhan Mantri Bhartiya Janaushadhi Pariyojana (PMBJP) Kendras, Minister of Chemicals and Fertilisers Ananth Kumar says.

At a time when average market price of four sanitary napkins is around Rs 32 (50 cents) the government has launched these oxo-biodegradable pads priced more economically for health security of women, specially for those who are under privileged and are in rural areas, Kumar adds.
(Source from: "www.convertingguide.com")

U.S. Cotton adds spunlace manufacturing

Will make 100% cotton nonwovens

U.S. Cotton, LLC, the leading manufacturer of health and beauty cotton products in North America, has installed its first spunlace production line dedicated to manufacturing 100% cotton spunlace nonwovens in Gastonia, NC. U.S. Cotton is now able to manufacture 100% cotton spunlace in a variety of weights and patterns to serve the cosmetic, hygiene, medical and industrial markets.

For over a combined 140 years U.S. Cotton and its parent company Parkdale Mills has been innovating how cotton-based products are manufactured. The addition of spunlace manufacturing expands this product mix and adds another link to its value chain.
(Source from: "www.convertingguide.com")

Glatfelter's new airlaid line almost complete

22,000 ton investment will benefit Arkansas, send ripples through the market

The North American airlaid market is bracing itself for the start up of Glatfelter's new airlaid line, the first significant investment the market has seen in more than a decade.

Market Trends

Glatfelter will start running the line this month and is expected to start supplying the market in during the second half of the first quarter of 2018.

Glatfelter, one of the world's largest airlaid producers, announced in early 2015, it would add a new lightweight production line in Fort Smith, AR, increasing its global capacity by 22,000 tons.

"There is a lot of unhappiness and concern in the North American airlaid market as to where that 22,000 tons of capacity is going to go," says Phil Mango, industry consultant.

In announcing the new line, Glatfelter indicated that it was the result of a major industry order, and the plant's Arkansas location, near existing plants of wipes manufacturers Rockline Industries and Kimberly-Clark, have left many speculating who those customers are.

Last month, Chris Astley, vice president of the company's Advanced Airlaid business unit, told local stakeholders, his company has hired about 20 employees at the site in the past few weeks. Some of these employees have been visiting existing Glatfelter airlaid facilities in Gatineau, Quebec, Canada and Falkenhagen, Germany to familiarize themselves with the technology.

The investment is expected to bring 80 high tech manufacturing jobs to the Fort Smith, AR area. The site beat out about a dozen other locations to become Glatfelter's next North American facility.

And, Glatfelter has been open about the technology planned behind the new line, saying that it will help it grow in lighter weight hygiene and disposable wipes products - a market already in growth mode, increasing 12% last year - was a priority.

In 2015, feminine hygiene applications dominated Glatfelter's sales, representing 74%, while wipes comprised less than 10% of sales. CFO John Jacunski recently told analysts that the investment in Arkansas, which will also include a center of excellence, will allow Glatfelter to target wipes without compromising the needs of its feminine hygiene efficiencies.

"(The new line) will bring additional balance to the portfolio which is a good thing and at the same time sends a message to all of our customers that we are willing and able to support their growth," he says.

North America has not seen significant airlaid investment since the early 2000s when Buckeye (which is now a part of Georgia-Pacific) added a 50,000-ton line in North Carolina around the same time that Concert Industries (a business now owned by Glatfelter) added its two side-by-side lines in Gatineau, Quebec.

What this new line will mean for the rest of the airlaid industry, particularly within North America, remains to be seen. As Glatfelter's role in the wipes market expands, its main competitor Georgia-Pacific will likely be forced to look for new markets—like feminine hygiene or tabletop—to fill its capacity, much of which is made in Gaston, NC, on a line built by Buckeye Technologies in 2001. This line is now the best quality airlaid line for wipes in the world. It's said to be the fastest, most cost efficient and offers a lot of advantages, Mango says.

"The newer line, which was added in 2001, is really optimized for making wipes and they have been very successful here," he adds. "Glatfelter will really have to prove themselves, which they will. It is just a matter of how long that takes."

What hangs in the balance, Mango feels, is older airlaid lines, like G-P's Green Bay line which is several decades old. G-P could choose to idle this line but it offers a lot of advantages for industrial wipes applications. "Its probably more likely that G-P will focus on developing new applications," Mango says.

North America's other airlaid players, McAirlaids and Domtar, will not be as affected by the incoming lightweight capacity. McAirlaids has faced some challenges in its medical business and has focused on growing its role in businesses like food pads and private label underpads. Meanwhile, Domtar's airlaid business is largely focused on absorbent core applications, which largely supplies its own personal care businesses.
(Source from: "www.nonwovens-industry.com")

Market Trends

General Nano Introduces VeeloVEIL

Metalized technology offers lightning strike protection

General Nano has launched VeeloVEIL, a new lightweight, flexible, electrically conductive metallized nonwoven technology that has been developed with aerospace and defense customers to meet the aerospace industry's most stringent lightning strike protection and electromagnetic environment effects requirements in composite air vehicles. As the aerospace industry has transitioned from metal to composite air vehicles, the need for new electrically conductive, lightweight materials that deliver multifunctional value are easy to integrate, and improve upon existing composite manufacturing processes, has become prevalent for aerospace OEMs and their suppliers.

"We've been innovating for nearly four years with some of the world's most respected aerospace companies to develop next generation conductive materials that support current and future aerospace platforms and missions. VeeloVEIL is the newest result of General Nano's ability to develop differentiating products that delight our customers. Please stop by General Nano's CAMX booth F76 to learn more," says Joe Sprengard, CEO and co-founder of General Nano.

VeeloVEIL delivers a new level of performance in metallized nonwoven technology for the composites industry providing a unique combination of ultra-low resistivity, low areal weight and ductility for composite parts with complex geometries. VeeloVEIL is more than four times less resistive at equivalent areal weights compared to other metallized nonwoven products on the market.
(Source from: "www.convertingguide.com")

U.K. companies make plastic pact

Firms pledge to make 100% of plastic packaging reusable, recyclable or compostable by 2025

Dozens of companies in the U.K. formally pledged to eliminate unnecessary single-use plastic packaging by 2025. Under the "UK Plastics Pact," these businesses, which include major food and beverage brands, supermarkets, retailers and plastic reprocessors, have agreed to aim to make 100% of their plastic packaging reusable, recyclable or compostable and to ensure 70% of it is effectively recycled or composted between now and 2025.

The 42 companies, which include major food and drink brands, supermarkets, manufacturers, retailers and plastic re-processors, will also ensure that there is an average 30% recycled content across plastic packaging by 2025.

The announcement of the pact comes amid widespread concern over the problem of plastic waste polluting the countryside and the world's oceans where it can harm wildlife and enter the food chain.

Waste reduction body Wrap, which is leading the UK Plastics Pact, said the businesses involved are responsible for more than 80% of the plastic packaging on products sold through British supermarkets. In addition, 15 other organizations, including the British Retail Consortium and the Food and Drink Federation, have signed up to the targets.

Last week, diaper maker Procter & Gamble said it was aiming to have nearly all of its packaging be reusable or recyclable by 2030 as part of its Ambition 2030 environmental sustainability plan.
(Source from: "www.nonwovens-industry.com")

Don & Low to add Spunbond line

Investment will target industrial applications

In line with parent company Thrace Group's strategy, Don & Low has agreed to purchase a new 3.2 meter, Reicofil 4 bicomponent spunbond line specifically configured for industrial spunbond markets. The new investment will see the UK's only spunbond manufacturer initially increase its plant`s capacity by 5000 tons. The expansion follows the company's 2016 investment in an Oerlikon Neumag meltblown line.

The new technologies incorporated into this investment will broaden the company's manufacturing capabilities, increase its product offering and provide technical solutions to meet both future customer and market demands. This investment will further cement Don & Low's position as a technical leader in industrial markets.

Market Trends

The new RF4 line has been specifically configured for industrial applications incorporating a unique capability—to produce significantly higher tensile and isotropic spunbonds. In addition, the line will produce both mono and bicomponent spunbond utilizing combinations of polypropylene and/or polyethylene and offers improved filament distribution. The line will further benefit from Reifenhäuser's latest digital platform. This investment will be on stream in April 2019.

In addition, the investment will see the nonwovens site expand to create a new unit to facilitate a secondary processing center of excellence, enhanced by a further investment in a high output, three colour printing line. This expansion will be complete in April 2018.
(Source from: "www.nonwovens.com")

Patanjali to enter Indian hygiene market

Company to launch Shishu Care diapers in 2018

After making a mark in edibles and beauty products, Patanjali has set its eye on the diaper and sanitary napkin market in India. The brand, helmed by yoga guru Baba Ramdev, will enter the market with both baby and adult diapers as well as affordable sanitary napkins in the first quarter of next financial year.

According to sources, Patanjali will enter the diaper category with pant-style diapers. Unicharm's Mamy Poko Pants was the first player in the country to enter the market with these type of diapers and was later followed by Kimberly-Clark and Procter & Gamble. Today, the category is skewed towards the pant-style offerings, accounting for about 80% of the overall segment.

The kids' diaper will be launched under Patanjali's Shishu Care brand, which already included products in the oil, shampoo, soaps and powders categories.

While sanitary napkins have a penetration of only 20% in India, the penetration of disposable diapers is less than 2% in the country. Both rates are increasing as people in India are getting more hygiene conscious.
(Source from: "www.convertingguide.com")

<<< continue 27

several operations into just one pass, it saves labor, time and money. It is also available as a modular unit that can be integrated into production lines.

For bulky, large, multiple-layer and/or difficult-to-bond materials, Sonobond offers the SureWeld 20 Ultrasonic PlungeBonder. A combination of a rugged welding press and heavy-duty power supply, the welding horns and nests or fixtures of this unit can be customized, allowing it to achieve customers' specific applications with superior repeatable performance.

Spoolex Offers Range of Technologies

Spoolex, a manufacturer of web converting equipment, designs and manufactures ultrasonic technology under its Calemard and Decoup+ brands. The company launched its first range of ultrasonic devices in 1975. Spoolex's manual devices, working station and slitting heads for integration on existing machines are generally developed by Decoup+, while its splicing solutions in line or off-line are made by Calemard. Calemard also offers its slitter-rewinder equipped with ultrasonic slitting heads from Decoup+ technology.

For hygiene applications, Spoolex offers ultrasonic splicing benches/modules to be installed inline to join two webs of nonwoven materials before slitting and rewinding or spooling operations for longer length of product on a single pad or spool. These modules are available as a semi-automatic or fully automatic operation. Ultrasonic splicing benches/modules can be installed off-line to join two large webs of nonwoven materials. Ultrasonic slitting heads can be installed on a slitter rewinder for tapes with resistant, soft and clean sealed edges. Spoolex can also provide an individual ultrasonic welding station for "stitching" operations without any additional material.

"Ultrasonic technology is well adapted to filtration, hygiene, cable industries and airbag production, for example, as it performs strong, invisible and reliable plain splices, without external elements such as glue, adhesive, needle and thread," according to Pierre Croutelle, sales manager - Textiles & Nonwovens Division, Spoolex.
(Source from: "www.nonwovens-industry.com")

2017 Report about the development of nonwoven industry in China mainland

Production of 2015-2017 nonwovens by technology

Processing Technology	2015		2015/2014	2016		2016/2015	2017		2017/2016
	Production (10,000)	Pct. (%)	Growth (%)	Production (10,000)	Pct. (%)	Growth (%)	Production (10,000)	Pct. (%)	Growth (%)
Spun-melt	137	46.58	+12.3	150	46.01	+9.49	169.53	45.76	+13.02
Spunbonded (incl. S and M composite	132.5	45.05	+12.28	145	44.48	+9.43	164	44.26	+13.10
Melt-blown	4.5	1.53	+12.5	5.0	1.53	+11.11	5.73	1.54	+14.6
Dry laid	145.7	49.54	+10.73	163.85	50.26	+12.46	188.17	50.78	+14.84
Needle-punched	68.2	23.19	+7.40	74.7	22.92	+9.53	80	21.59	+7.09
Chemical-bonded	12	4.08	+4.35	12.5	3.83	+4.17	13	3.51	+4
Thermal-bonded	13.5	4.59	+0.74	15.1	4.63	+11.85	18.5	4.99	+22.51
Spunlaced	50.4	17.14	+21.45	59.9	18.37	+18.85	75	20.24	+25.21
Stitch-bonded	1.6	0.54	+6.67	1.65	0.51	+3.13	1.67	0.45	+1.21
Air-laid	8.4	2.86	+2.44	8.6	2.64	+2.38	8.8	2.38	+2.33
Wet-laid	3	1.02	+57.9	3.55	1.09	+18.33	4	1.08	+12.68
total	294.1		+11.61	326		+10.85	370.5		+13.65

2017 main end-uses of China mainland nonwovens

Usage	2015		2015/2014	2016		2016/2015	2017		2017/2016
	Production (1,000)	Pct. (%)	Growth (%)	Production (1,000)	Pct. (%)	Growth (%)	Production (1,000)	Pct. (%)	Growth (%)
Medical, Health care and hygiene, etc.	1196	40.67	+13.90	1378	42.27	+15.22	1635	44.13	+18.65
Wadding	217	7.38	+7.43	232	7.12	+6.91	250	6.75	+7.76
Packing materials	274	9.32	+14.17	298	9.14	+8.76	325	8.78	+9.06
Household wipes and Cleaning Materials	318	10.82	+18.22	360	11.04	+13.21	411	11.09	+14.17
Geosynthetics	151	5.14	+4.14	156	4.79	+3.31	171	4.62	+9.62
Substrate for Coating & Lamination	84	2.86	+5	87	2.67	+3.57	90	2.43	+3.45
Roofing felt	96	3.27	+4.35	99	3.03	+3.13	108	2.91	+9.09
Furniture interiors	74	2.52	+4.22	76	2.33	+2.70	79	2.13	+3.95
Interlining	48	1.53	+2.13	49	1.50	+2.08	50	1.35	+2.04
Shoe materials	46	1.56	+3.37	47	1.44	+2.17	48	1.29	+2.13
Automobile interiors	138	4.70	+6.9	147	4.51	+6.52	163	4.40	+10.88
Filter media	206	7	+17.71	237	7.27	+15.05	276	7.45	+16.46
Agriculture use	17.1	0.59	+4.91	17.6	0.54	+2.92	18	0.49	+2.27
Paper-making felt	9.9	0.34	+2.06	10	0.31	+1.01	10.1	0.27	+1.0
The others	66	2.25	+2.33	66.4	2.04	+0.61	70.9	1.91	+6.78
Total	2941		+11.61	3260		+10.85	3705		+13.65

Elastic non-woven membrane

Timothy Wang, Ph. D
Textile Engineering Department of Feng Jia University

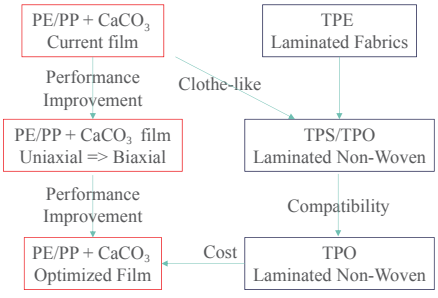
Abstract

* It is widely known that diaper backsheet was made by stretching a PE/PP + $CaCO_3$ formulation. The major processing factors affect the final film performance are, MI of PE/PP, Volume of fillers, stretching methods, etc.
* Waterproof but breathable membrane for clothes application is a so-called monolithic film does not need adding a filler.
* There exist a market need for elastic diaper due to plastic nature of PE/PP. This article start from explaining the mechanism differences of 2 different membranes, and describe the materials and processing methods of elastic film.

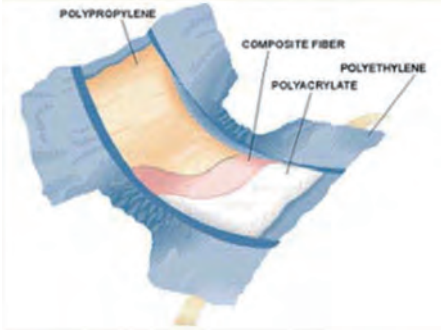
Discussed Agenda

* The Evolution & Categories of film
* Lamination difference : fabric vs non-woven
* Infuse TPO membrane
* Flushable film
* The mechanism of microporous film
* Processing factors
* Stretching bonded laminates
* Optimized biaxially oriented microporous film of PE + $CaCO_3$

The evolution of elastic non-woven membrane



Main Components of Diaper



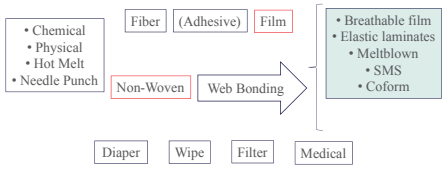
PE Breathable Backsheet

Polythene film (Back sheet):
This is the back/bottom-most sheet of a typical disposable diaper. They are hydrophobic nonv/oven films.
This part of diaper is impermeable to liquid (i.e.urine). Some times polypropylene films may also be used.
This part is responsible for preventing the urine from escaping through the diapers.

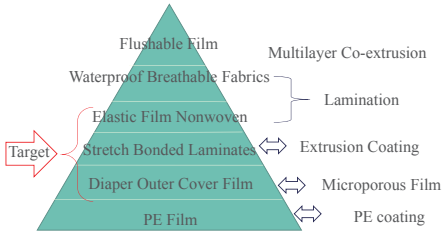
Breathable/Cloth-like back sheet:
Sometimes this polyethylene back sheet is given breathable/cloth-like look using a thin polypropylene nonwoven sheet. This process is done by using either the hot melt process or the heat and pressure method with direct extrusion to the nonwoven.

Cloth-like back sheet of disposable diapers are not really made of woven cloths, but this is really made with the polypropylene non-woven films.

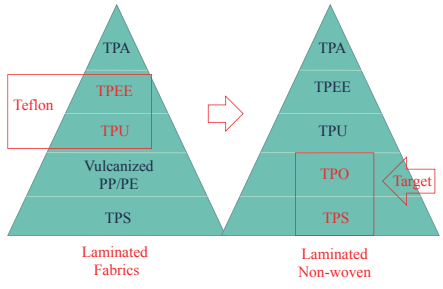
Structure of Non-Woven Industry



Category of Microporous Film From Non-Woven Perspectives

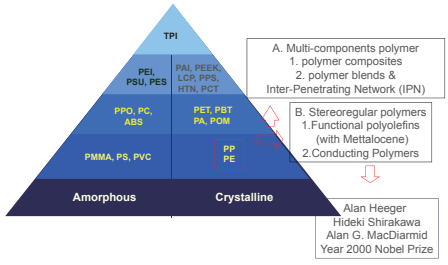


Material choice for non-woven



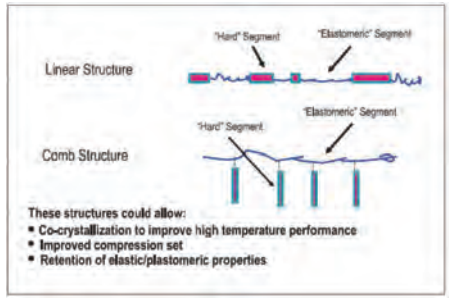
Technology News

Impact of Ziegler-Natta Catalyst

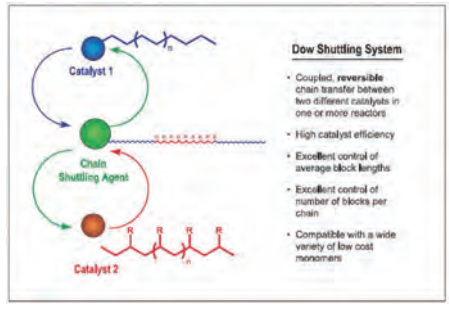


Product Portfolio For Hygiene Applications

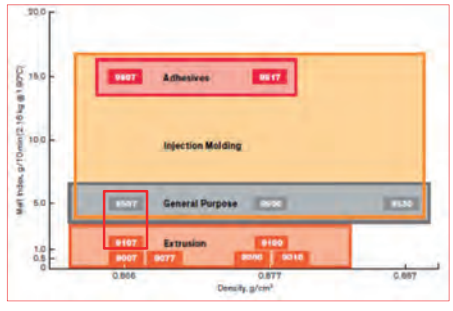
Molecular structure of TPO



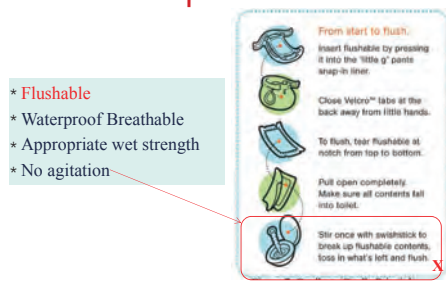
Chain Shuttling Agent (CSA)



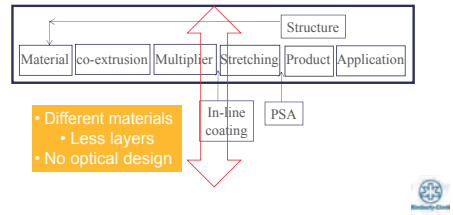
Infuse : Olefin Block Copolymer



Flushable diaper film

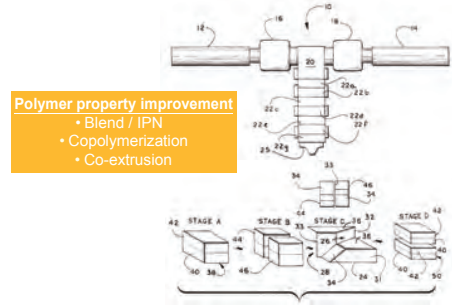


3M Coextruded Nanolayer Film



Kimberly Clark Co-extruded Multilayer Film

Flushable Film



'439 (2006 KC) (PP+$CaCO_3$/TPE)
Corrugated microlayers having improved properties

Elastic Layer

Corrugated non-elastic layer (by stretching & partial delamination)

Corrugation within film

- Non-elastic / elastic film
- Biaxial stretching & release
- Elastic film return to original size
- Extensible (non-elastic) did not return
- Extensible microlayers are partially de-bonded from elastic microlayers
- The de-bonded extensible microlayers

Technology News

folded up, forming corrugations under the contraction force of elastic layers
- Shrink in MD/CD directions
- Expand in THK direction

Biaxially oriented microporous film PE + $CaCO_3$ (unaxial vs biaxial)

the mechanism and kinetics of void formation and growth in particulate filled PE composites

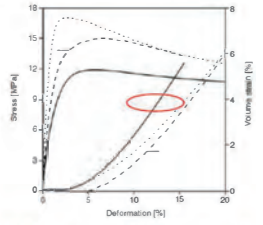


Figure 1. Stress vs. strain and volume strain traces of PE composites containing 20 vol% $CaCO_3$ filler.
— PE04 - - PE07, ····· PE11

Abbrev.	Trade name	Producer	MFI [g/10 min]	Density [g/cm³]	Modulus [GPa]
PE04	Dowlex 2037	Dow	2.5	0.935	0.4
PE07	Tipolen FB 472	TVK	0.7	0.947	0.7
PE11	Tipolen ME 610	TVK	6.5	0.961	1.1

Stretching Mechanism of Coated Fillers

Organic polymer (Low energy)

Inorganic filler (High energy) | Coated inorganic filler (Low energy)

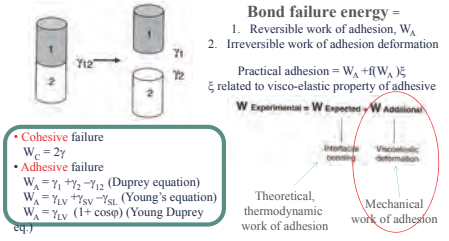
Work of adhesion > work of cohesion (Adhesion > Cohesion) => Contact angle = 0 Low surface energy completely wet High surface energy

Work of adhesion < work of cohesion (Adhesion < Cohesion) => Contact angle > 0 Low surface energy can't completely wet High surface energy

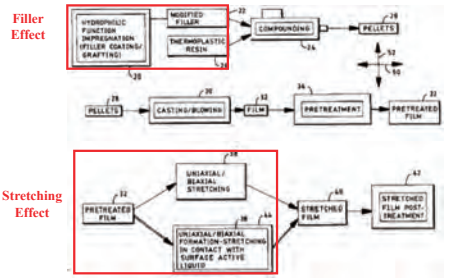
Polymer + filler , high surface energy, Fillers function as reinforcement. Interface adhesion > Polymer yield stress, Polymer-filler interface are stress concentration, "Brittle mode" failure observed.

Polymer + coated filler , low surface tension, Fillers function as void initiator. Interface adhesion < Polymer yield stress, Polymer-filler interface are not stress concentration, "Ductile mode" failure observed

Work of Adhesion & Cohesion



05,800,758 (1988 KC) I



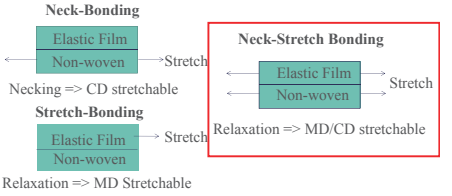
Polymer with 5 wt% filler treated with surface active material of HLB < 6, then biaxial stretching to induce voids so that microporous film was produced instead of thick film produced by phase separation.

'758 Patent (1988 KC)

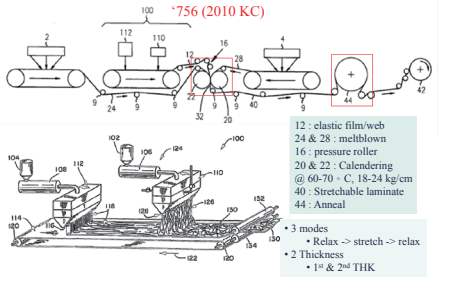
* Compounding Effect
- Size of filler
- Distribution of filler
- Interfacial energy
- Loading of filler

* Stretching Effect
- Temperature
- Stretching rate
- Draw ratio
- Stretching types

Neck-bonding vs stretch-Bonding



Stretchable soft laminates



Uniaxial vs Biaxial

Filled polymer 32 go through

* De-bonding
- Interfacial energy (↓)
- Adhesion (↓)

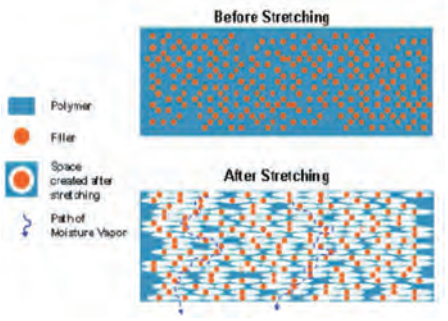
* Void growth
- Temp (↑)
- Stress (↑)

* Void coalescence
- Loading (↑)
- Stretch ratio (↑)

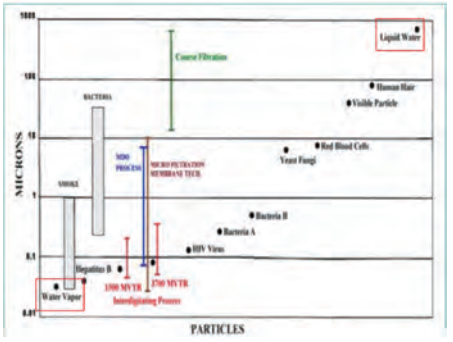
	Uni - axial	Biaxial
Connecting	Isolated	Interconnected
Void shapes	Elongated	Spherical / Elliptical
Pore area	↓	↑

Technology News

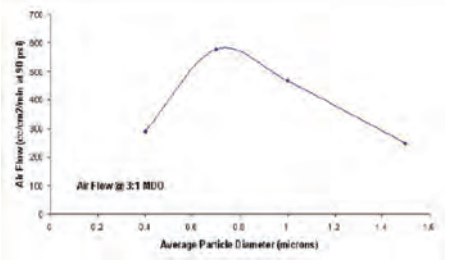
Microporous PE/PP Film



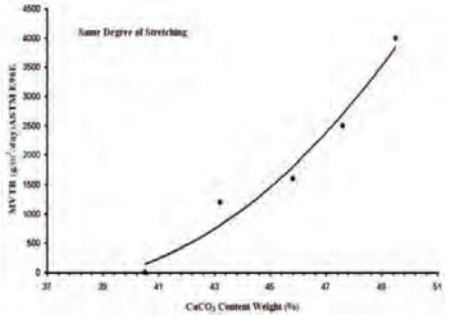
Particle Size Comparison



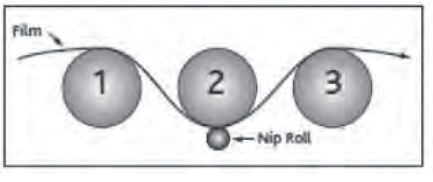
Air Flow vs Particle Size

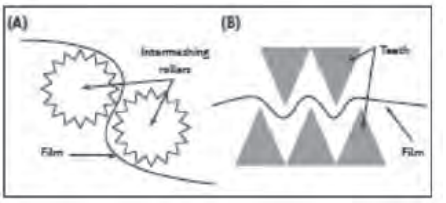


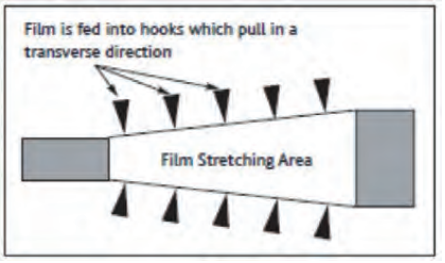
MVTR vs $CaCO_3$



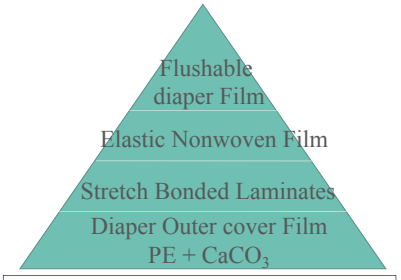
Microporous PE/PP Film







The Core Technologies of Functional Non-Woven Laminates



3 core technologies:
- Permeability : Interface + mechanics
- Flexibility : TPE + Bonding
- Flushability : Nanolayer co-extrusion

Summary

* There exists fundamental difference between fabric and nonwoven on film lamination
* Introduce the new family of block copolymer : TPO membrane for the non-woven industry
* Kimberly-Clark 's Flushable film was introduced
* Explain the mechanism and kinetics of void formation and growth in particulate filled PE composites had been addressed.
* Introduce the compounding & stretching effects on biaxially oriented microporous film of PE + $CaCO_3$
* Stretch bond laminates are briefly touched and optimized biaxially oriented microporous film of PE + $CaCO_3$ were introduced

References (Omit)

(Source from: "ANFA conference paper," this article extract)

Technical Trends

Ultrasonics for nonwovens

Equipment producers are seeing more use of the bonding technology in the nonwovens industry

Ultrasonic technology is increasingly being used across various sectors of the nonwovens industry, including absorbent hygiene products, filtration, automotive applications, the cable industries and more. In general terms, ultrasonic bonding uses high frequency sound to generate localized heat through vibration and causes thermoplastic fibers to bond together. This technology is sometimes able to replace other bonding methods such as adhesive and thermal technologies in certain applications. Following is a look at what some of the key manufacturers of ultrasonic technology are innovating in the nonwovens industry.

Chase Sees Growth in Filtration

Chase Machine and Engineering manufactures custom web handling equipment for a wide range of customers in the medical, nonwoven, converting, geotextile, extrusion, filtration and packaging industries. The company built its first ultrasonic slitter for the hook and loop industry in the late 1970s.

"It was at that point in time we realized that ultrasonic technology offered end users tremendous benefits," says Guy Gil, president, Chase Machine and Engineering.

Since then, Chase Machine and Engineering has built ultrasonic laminators, embossers, slitters, cut to lengths and splicing equipment ranging from nine to 144 inches wide. This equipment can be used in nearly every industry in which nonwovens are used.

Over the years, Gil has seen the use of ultrasonics for nonwoven lamination, slitting and splicing grow within the filtration and medical industries. "As manufacturers of nonwovens continue to improve their product, end users find more applications and quite often select ultrasonics to assemble those materials," he says.

Ultrasonics offers advantages over other bonding technologies because it's a clean and efficient method of joining or slitting synthetic materials. "While the initial investment is much more, the long term benefits more than pay for itself," Gil explains. "Thermal methods such as hot oil or electrically heated systems require an initial preheat cycle in order to bring the tooling to operating temperature. Then, while running, there is a significant amount of heat loss."

On the other hand, ultrasonic technology is instantaneous, he says. "The operator can start and stop the equipment without worrying about melting the materials being processed. It is also a very clean method of laminating as there are no hoses or rotary unions that may leak over time."

Most recently, Gil has seen ultrasonics gain ground with manufacturers of filtration products, since they are commonly assembled using adhesives or needle and thread. "The primary driver to find alternative methods has to do with cost and quality," he continues. "Adhesives are expensive and sewing leaves holes in the product. Ultrasonics fuse the nonwoven materials to create a hermetic seal which is much better than applying an adhesive or seam tape over a sewn seam."

Herrmann Develops Technology for Abdominal Swabs

Karlsbad, Germany-based Herrmann Ultrasonics, which supplies ultrasonic bonding technology to machinery builders and end users, recently developed a new and automated ultrasonic assembly line—with complete ultrasonic laminating and sealing steps—for a new and patented abdominal swab called texart by Portuguese medical producer Bastos Viegas.

Previously a complex sewing process with ample manual handling steps was used to produce the swab, according to Herrmann. The new swab enables automated roll-to-finished-products assembly. This latest material configuration developed and patented by Bastos Viegas is made of three layers, using woven and nonwoven technology. A textile net in the middle—made of polyamide/polyester—with an x-ray thread is placed between two layers of spunlace nonwoven (70% viscose and 30% polyester). The wrinkled surface of texart increases the absorption rate and produces a soft sponge-like feeling.

According to Markus Pasternak, regional sales director Nonwovens for Herrmann,

Technical Trends

the sonotrode design and new special coatings have allowed Herrmann to solve new applications like the abdominal swab. "Bastos Viegas, one of the biggest suppliers of non active medical devices in Europe, has been using ultrasonic technologies for a long time," he says. "Not adding any additional material to their product gives ultrasonic technology a leg up and makes it so successful for medical applications like this."

Herrmann is always developing new ultrasonic systems, Pasternak says. A recent development from the company for continuous applications is a high power generator for the Ultrabond 48.20. The digital ultrasonic generator technology of the Ultrabond product line is specifically designed for continuous weld processes with continuous power ranges of up to 8000 W. A DSP (Digital Signal Processor) compensates for fault effects and ensures repeatable ultrasonic output at a duty cycle of 100%. Next up on the market for Herrmann will be a completely new Microbond control system that allows the customer to visualize the ultrasonic process and understand it even more.

Pasternak continues to see interest in ultrasonic applications grow, with the highest interest still coming from hygiene applications. New applications such as ears, elastic laminations and constructions, ADL, core and more, are developed and tested at Herrmann's four headquarters in Germany, the U.S., China and Japan. In nonwovens manufacturing, filtration, automotive and other industries, Pasternak says ultrasonics proves to have a lot of benefits. "It is so interesting that material suppliers are adapting their recipes to produce and create more ultrasonic suitable materials," he concludes.

Sonobond Promotes Technology for Outdoor-Use Protective Coverings

Sonobond Ultrasonics offers plunge welders, rotary welders, rotary cutters and hand cutters as part of its portfolio of ultrasonic technology. The company can also make new custom tooling to best handle new applications.

According to president Janet Devine, Ultrasonics, growth for ultrasonics has been consistent with the expanded use of nonwovens, especially in 2017. In particular, the company has seen substantial growing interest in the ultrasonic bonding of materials with a laminated backing of nonwoven material for use in the medical/hygiene industry. These products include covers for mattresses and wheelchair cushions, as well as medical devices and instruments.

There are number of benefits that ultrasonics provide over other bonding methods, Devine says, but the most important advantage is the ability to seal materials without making holes in the fabric. "Especially where the fabric is water resistant this can prevent liquids from penetrating or leaking through the product seams," she says.

With Sonobond technology, seams can be bonded and trimmed with its rotary system in a single pass. Additionally ultrasonic bonding or cutting is faster and often cheaper than sewing or gluing. "Cutting with ultrasonics offers the advantage of sealing the edges of the material as they are cut," she explains.

Recently, Sonobond has been promoting the use of ultrasonics for outdoor-use protective coverings, where ultrasonic leak-free seaming has contributed to the enduring quality, effectiveness and success of products that are left outdoors. Manufacturers are using ultrasonic technology for coverings made for automotives such as cars, RVs, motorcycles and boats; outdoor furniture covers and cushion liners; barbecue grill covers; and protective envelopes for product shipments.

Sonobond technology can ultrasonically bond fabrics that are 100% synthetic or fabric blends with up to 40% natural fibers, according to company vice president Melissa Alleman.

Sonobond offers two types of ultrasonic bonding units specifically applicable for assembling protective coverings. Though similar in appearance and operation to a traditional sewing machine, Sonobond's SeamMaster High Profile Ultrasonic Sewing Machine has a high clearance between the wheel and horn, allowing increased access for hand-guided applications with curves and tight tolerances. The unit can seam, trim and seal in one step, and offers a wide selection of interchangeable pattern rollers that also hem, emboss and print. The machine requires minimal training to operate and by combining

>>> next 20

Product News

JX Nippon ANCI begins production of new filtration media

JX-CFF is a 100% continuous fiber polyester nonwoven

JX Nippon ANCI, headquartered in Kennesaw, GA, with manufacturing in Roanoke, AL, and composite manufacturing in Dalton, GA, has begun production of JX-CFF, (continuous fiber filtration), a polyester nonwoven which is much more uniform than conventional roll goods of spunbond and can be customized for pore size requirements, according to the company.

JX-CFF is a 100% continuous fiber polyester product which is made by using a propriety technology of thermally bonding specific combinations of various polyesters to accurately control pore size and tensile properties to specific customer specifications. Materials for JX-CFF may include the following nominal fiber sizes:

- Conventional Spunbond Polyester: 5 dpf (23 microns)
- Milife Microfiber Polyester: 1 dpf (10 microns)
- Milife Ultra-Microfiber: 0.07 dpf (2.7 microns)

Using various combinations of the above fibers along with proprietary bonding conditions, while varying unit weights, allows JX Nippon to customize web properties over a wide range to meet customer requirements. For example, the pore size of JX-CFF products can range from 10 to 100 microns. Additionally, web properties can further be influenced by the sequence of layering the various fiber sizes in JX-CFF.

Alternate versions of JX-CFF may include the following pending customer requirements: JX Nippon's CLAF (PP or PE enhanced netting) which can aid in dirt/dust release; multiple films for unique properties; and other nonwovens such as spunlace, meltblown, bicomponent, and nano products.
(Source from: "www.inda.org")

Albarrie to show off needlefelt, finishing capabilities

Canadian manufacturer will share two new filtration fabrics

Albarrie (Booth 830) is a leading producer of specialty fabrics. At the heart of the organization is its advanced needlefelt operation with multiple production lines including wide width, heavy weight and tubular needlefelt processing. These specialized processing lines can integrate fiber blends, layering/supporting materials to produce engineered fabrics from four to 120 oz/yd^2.

The organization also boasts a wide array of finishing capabilities to customize fabrics and meet demanding performance specifications. Finishing capabilities include lamination, coating, impregnation, heat treating, singeing and calendering.

At Filtration 2017, Albarrie will be sharing two filtration fabrics that are exclusive to the company: Fabrics needled to Basalt fibers (P84, PPS, and Polyox), and fabrics that contain Polyoxadiazole fiber also known as Polyox. These combinations possess unique properties that no other filtration fabric on the market can match.
(Source from: "www.nonwovens-industry.com")

Midwest Filtration to show new filter media

Unipoly PSB is a new point-bonded, spunmelt polyester

Many customers call Midwest Filtration the drug store of nonwovens. At its booth, visitors will find many types of nonwovens in one place. These are stocked at its Cincinnati warehouse in mill rolls and are ready to be converted by one of 12 re-rolling and slitting machines in rolls ranging in width from one to 150 inches in a short turn time. In addition, die-cutting machines can cut them into many shapes and sizes. Midwest Filtration's highly experienced seamers can sew and heat-seal them into tubes, bags and sleeves.

At its booth this year, Midwest Filtration is featuring a new nonwoven filter media called Unipoly PSB. It is a new point-bonded, spunmelt polyester available in basis weights ranging from 17-140 gsm. Its distinctive low denier fibers create excellent uniformity. The unique manufacturing process creates greater strength properties (Tensile and Mullen) than similar spunmelt polyesters. As a result, many applications can consider using lower basis weights to achieve the same or better results.
(Source from: "www.nonwovens-industry.com")

行业信息

ANEX 2018亚洲国际非织造布展览会报道

2018年亚洲国际非织造材料展览会ANEX于6月6-8日在日本东京Big Sight会展中心举办，此前，6月4日国际标准化组织38技术委员会非织造材料工作组ISO TC38/WG9在东京举办ISO 9002非织造材料定义的最终稿编制及测试方法修订会议。

ISO TC38/WG9工作组专家

2018年亚洲国际非织造材料展览会概况

亚洲国际非织造材料展览会（ANEX）由亚洲非织造材料协会（ANEX）主办，每3年举办一届。本届ANEX2018由亚洲非织造材料协会(ANFA)与日本不织布协会（ANNA）联袂举办。

本届展会展品涉及非织造原材料、卷材、终端制品、设备及辅料等整个产业链。据主办方统计：本届展会展商达747家展商，60%多的展商来自主办国之外、40%展商来自中国。到场观众3万余人。ANEX展会融产品展示、技术和市场交流于一体，并发布2017年全球非织造材料产业发展信息以及纳米纤维技术研讨等交流活动，使展商及参观者了解了世界非织造材料技术和市场的发展前沿。

亚洲非织造材料展览会（日本 东京）开幕剪彩仪式

当前，全球非织造材料市场已经形成美洲、欧洲和亚洲三足鼎立之势，北美洲、欧洲和亚洲的非织造材料产量之和占全球总产量的90%以上。2017年，北美和欧洲地区的非织造材料产量小幅增长，产量分别达到238.7万吨和254.4万吨；2017年日本非织造产量达34.2万吨；韩国非织造材料产量达22.8万吨；印度和印度尼西亚2017年非织造材料的产量分别达到41万吨和9.1万吨。而中国作为非织造材料最大的生产国、消费国和出口国，2017年非织造材料的产量仍保持了两位数的增长，达到370.5万吨，年增长率13.65%、高于GDP增长率。

6月6日下午举办了GNS企业家高峰论坛

1）ANFA秘书长KOMURO先生作《2017亚洲非织造工业报告》；

2）INDA 运营总监Morris Collins 作《北美非织造市场与趋势报告》；

3）EDANA市场分析与经济事务总监，Jacques Prigneaux 先生：作《欧洲非织造工业报告》；

4）中技协非织造材料专业委员会会长向阳先生作《中国非织造工业现状与趋势的报告》；

5）印度BCH运营总监， Samir Gupta作《印度非织造工业报告》。

GNS2018吸引了来自全球的300余位代表参加，参会的代表们获得了全球最新的非织造资讯。

Morris Collins

Jacques Prigneaux

Samir Gupta

向阳

中国国内参展商必得福弹性纺粘非织造材料，大连瑞光SP湿法复合非织造材料，杭州诺邦的水刺非织造材料，飞龙的宽幅6600mm的高速四针板针刺机以及高速梳理机，安徽金春超纤非织造材料，广东海鑫的擦拭巾，一尘的过滤产品，恒天嘉华的具有“三抗”、亲水功能非织造材料、汕头三辉针刺机、飞龙的水刺机、美森的非织造材料等创新产品都吸引了大量潜在客户的眼球。

参观者、客商与展商进行了深入的交流与互动，了解了行业的前沿技术，探讨了互利合作的可能性。





展会同期还举办了涉及学术、机械设备、医疗/卫生、环境、汽车等33场研讨报告以及相关纳米纤维等34场次的专题演讲。

从展商展示内容可见：在各个应用分支领域非织造产品依然朝着功能化、高性价比、安全、环保和可持续方向发展。非织造设备发展趋势依然是大型、高速和高产，单线产量不断提高，并逐步走向智能化，生产企业和用户更加重视装备的节能和资源的循环利用。

ANEX'18 是一次成功的国际非织材料展，三天的展会交流和传达了大量创新信息、展示了丰富多彩的新颖非织造产品，参展中国企业及参观者均收益多多。

（ANFA亚洲非织造材料协会工作委员会主任 向阳）

2018 ANFA 临时理事会召开

2018 ANFA临时理事会6月5日下午于东京召开。

名誉会长、会长、副会长、理事、秘书长及工作委员会主任、各地区联络处代表等32人参加了会议。

会议首先为台湾区不织布同业公会故会长陈弘坤先生默哀。由黄清山会长致欢迎辞与开幕辞。随后就ANEX 2021地点、2018年会/理事会、2019 ANFA研讨会、年会/理事会等事宜进行讨论并达成以下决议：

1）一致同意ANEX2021展于中国、上海举办

2）2018年11月1-2日，将在印尼巴厘岛召开年会/理事会

3）2019年ANFA 研讨会和年会/理事会将于年末适当时间于印度新德里召开

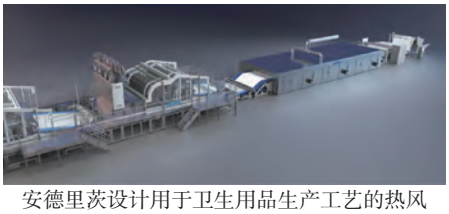
安德里茨在ANEX 2018上展示其尖端非织材料解决方案

格拉茨2018年4月27日讯。国际技术集团安德里茨将于6月6日至8日在日本东京Big Sight展览中心的2018年ANEX展会，展示其为亚洲市场量身定制的创新非织材料生产解决方案和纺织后整理技术。作为热风穿透粘合、针刺、纺粘水刺、水刺、热粘合和湿法成网等先进技术的世界市场领导者之一，安德里茨提供定制的、独特解决方案以及出色的服务，以满足客户个性化需求。

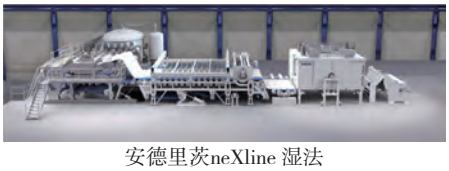
卫生用品市场的一流技术

安德里茨为卫生用品市场的非织造布生产商提供量身定制的解决方案和技术：

- 适用于热粘合、压花、压紧、复合或打孔的非织造布热轧机
- 纺粘水刺软化技术软化纺粘产品
- 用于生产优质尿不湿底层、立体护围的水刺生产线
- 可获得最佳柔软度导流层和表层的热风穿透粘合生产线。 采用安德里茨的平板烘房，客户可以从双组份纤维生产的高产能和高性能产品中获益，产品克重16至80克/平方米。 法国里尔CETI欧洲研究所最近安装了安德里茨的热风穿透粘合烘房。 欢迎客户参观并进行试验。



安德里茨设计用于卫生用品生产工艺的热风穿透粘合生产线



安德里茨neXline 湿法

凭借克重介于30～45克/平方米的轻质水刺交叉生产线，安德里茨同样也引领护肤面膜市场，原料采用棉、纤维素及其混合物等。客户受惠于纤网的均匀度、产品稳定性及其低的延伸率。 在世界很多地区，尤其在亚洲，护肤面膜市场正迅速成长，在欧洲使用得也越来越多。

湿法技术凭借附加值抵达新市场

安德里茨neXline湿法成网打开了利基市场制造商的大门，提供以芳纶、碳纤维、微玻纤和其他高科技纤维等特殊纤维制成的产品，是汽车、航空航天、农业、建筑、医疗/卫生和家用最终用途的正确选择 。众多选项满足个性化需求。

此外，Wetlace™技术提供的独特技术，在可冲散擦巾的生产中表现出色。 它将安德里茨纤网成形解决方案与安德里茨水刺单元相结合，优化了湿巾使用的湿强度，并在冲洗时快速分解。

采用安德里茨IIoT解决方案增值

在Metris工业物联网技术品牌下结合数字化的安德里茨技术，它反映了IIoT /工业4.0领域的最新技术发展水平，并为客户实现其生产和企业目标提供全面支持，提高工厂的效率和收益率，优化资源利用，避免生产中断，并实现最优的产品质量。 创新安德里茨数字化解决方案还使用高度人性化的产品特点，例如通过智能手机、平板电脑或智能眼镜来轻松控制生产。

安德里茨团队期待在ANEX与您会面，向您展示如何实现流畅而现代化的生产运营。

安德里茨为意大利Manifattura Fontana公司提供一条完整土工布针刺生产线

格拉茨，2018年3月5日讯。安德里茨已接获比利时技术纺织公司Sioen Industries所属位于意大利瓦尔斯塔尼亚的Manifattura Fontana公司的订单，为其土工布生产提供neXline eXcelle针刺生产线。 该生产线的启动定于2018年10月。

这次产品的供货范围包括从开松混合到自动包装系统的所有设备。生产线融合了安德里茨最前沿的技术和设备，比如：

- 用于处理长纤维的TCF-X高容量气压棉箱
- 工作门幅3.5米的eXcelle梳理机
- 最先进技术的ProDyn和Isolayer系统用于调节重量匀整度
- 高速针刺机，所带创新Zeta牵伸机可提升抗张强度参数和提高轻质产品产能。

这是第一次在意大利，生产线将热风穿透粘合功能和轧光功能相结合。目标旨在成为欧洲最高生产力的生产线。

Manifattura Fontana于2016年加入了上市的Sioen Industries公司，一家专门从事技术纺织品解决方案的比利时公司。它用合成纤维生产非织造土工布已有近50年了，并正在开发新的解决方案和改进产品，用于分离、过滤、防护、排水和加固。Manifattura Fontana是全球土工布市场的领先企业，为客户提供多种增值的土工布，用于道路、铁路、水库、大坝和隧道以及土方工程、地基、防腐蚀、排水、垃圾处理或遏制等多种应用。

安德里茨用于土工布生产的neXline eXcelle高产能针刺生产线

Manifattura Fontana 非织造土工布

独特的 Zeta 牵伸机用于纤网的完美控制

行业信息

强健的针刺机提供始终如一的质量

SAF™下一站– ANEX展会

作为SAF™（超级吸水纤维）生产商，Technical Absorbents开年来始终忙碌，目前正准备参加世界上最大非织造布展览会ANEX。展会于2018年6月6-8日在日本东京举办，为期三天，我们诚邀大家参观534号展位，进一步了解SAF™。

ANEX是由亚洲非织造材料协会与日本不织布协会联合举办，每三年举行一次。这是中国蓝星（集团）有限公司所属技术吸收公司的重要活动，是帮助提高亚洲市场认识SAF™技术的宝贵平台。

公司营销总监Paul Rushton解释说：“此次活动是我们培育该地区日益增长的非织造布行业的一个理想机会，同时了解SAF™纤维和产品优点。”

2018年初，Technical Absorbents SAF™品牌以崭新面目问世，此次展会大家可以有幸体验。该组产品有别于SAF™长纤和短纤样品，为专门精选SAF™产品，包括最新低克重和可清洗的级别，并有专家现场与参观者讨论潜在定制开发项目。

“我们的系列新活动旨在探索SAF™，”Paul Rushton继续说。"我们诚邀对吸收剂感兴趣的客户，或者从事利用这种技术项目的客户，能够莅临ANEX，了解更多关于SAF™方面的知识。SAF™性能有别于其他超水吸收剂，包括加工工艺等方面。根据产品应用性质，还有不同的表现方式，并能提供额外的优点。

维克罗公司针对中国尿片制造市场推出可信赖的搭扣解决方案

专为一次性尿片和其他个人护理用品而设计柔软搭扣产品打造可靠、耐久的密封性

2018年4月18日-维克罗公司作为钩毛搭扣类产品的首创者，宣布向中国市场提供其值得信赖的搭扣解决方案。新型高科技钩面搭扣解决方案专为尿片、训练裤和其他一次性个人产品而设计，可轻松整合到现有制造流程中，并为消费者提供可靠的高性能搭扣装置。

注塑钩09A和12A是中国市场的新宠，与威扣®品牌非织造产品毛面搭配使用，形成牢固的连接，使尿片和其他个人护理产品保持安全并固定到位。这些搭扣产品专为婴儿的独特需求而设计，具有极柔软的弹性亲肤边缘。它们为传统的预结合搭扣解决方案提供了舒适的替代方案。

“几十年来，我们一直是全球尿片和个人用品制造商值得信赖的合作伙伴，这些制造商依托我们柔软而易用的解决方案为客户提供额外价值，”维克罗公司亚太区总裁廖雪峰表示，“我们很高兴为寻求本地合作伙伴的中国制造商提供我们的高性能搭扣装置。”

维克罗公司通过其基于亚太地区的销售队伍、技术服务团队和本地生产的优势提供强大的本地服务。

维克罗公司是一家技术导向型国际公司，以简洁、优雅而令人惊喜的方式为全球各地的企业和消费者提供搭扣解决方案。公司拥有50多年的悠久创新传统，还拥有400多项有效专利和众多商标，包括在全球范围内注册的威扣®商标。公司通过整体生产和服务系统为客户制定并提供解决方案，该系统包括分布于美国、比利时、加拿大、墨西哥、乌拉圭、西班牙和中国的工厂，以及遍布世界各地的销售办公室。欲了解更多信息，请访问www.velcro.com和www.dontsayvelcro.com。

市场动态

ANEX 18 部分展商展会上新技术、新产品、新工艺掠影

Freudenberg集团的高性能材料和日本宝翎公司

Freudenberg集团的高性能材料和日本宝翎公司在ANEX展上展示了为能源、医疗和汽车市场的创新产品。

能源：

Freudenberg的非织造电极材料，具有独特的三维纤维结构，是特为研发以改进氧化还原电池液体流的循环性能。该电极具有柔性设计特征以适应特殊用户的需要。

同时，日本宝翎公司的镍氢高压电池隔膜具有耐高温优良安全性和快速充、放电率，可增加汽车的航程。

医疗：

Freudenberg的高性能材料已符合ISO13485要求、由亲水聚胺酯泡沫和氢化非织材料叠层的系列产品。

泡沫和非织材料两者组合使得伤口敷料在吸收和保持伤口分泌物的能力得以显著改进。

以生物吸收聚合物制成的Freudenberg“Scaffolene”非织材料在特性和应用两方面极具多样性。干态时，Scaffolene是柔性和耐撕的，湿态时仍保持稳定、维持其结构并避免凝聚结块。在手术中，这种材料可以方便、安全地放置于机体的正确位置、最终在机体内自动分解、无须后续处理除去敷料。

日本宝翎公司的透皮给药背底材料兼具弹性和有益的物理性两方面要求，可提供双向的超级弹性、使使用者获得舒适和柔软的触感。

汽车：

Freudenberg展出了在车内可提供杰出吸声性能的吸音衬垫材料。这种轻量化的衬垫材料可使车辆实实在在地减重并具较好成本效率，该衬垫材料适用于车内多种应用，如车门板、车顶、车厢、轮罩等处。

日本宝翎公司的车顶贴面装饰板可以改进零件在车内的适配度，其良好的成形性可更方便地模塑成形。

ExxonMobil

ExxonMobil开发的ExxonMobil™聚丙烯系列聚合物可满足用户对卫材创新的需求。Vistamaxx™聚合物、Achieve™先进PP，Exceed™和Enable™高性能聚合物以及Escorez™增粘剂用于制造柔软、坚韧、提高屏障保护功能的非织造材料。

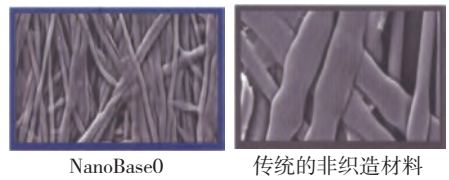
三菱纸业

三菱纸业的湿法非织造材料极具特色。推出的聚酯超细高强的纤维湿法非织造电池隔膜NanoBase0，具有耐高热、超薄、高强的性能。

特点：

*** 薄

*** 高强



NanoBase0　　传统的非织造材料

三菱纸业推出的另一种锂离子电池隔膜NanoBaseX是在聚酯非织材料基材上涂复陶瓷涂层，因其高热阻而具有高安全性、高电解质保持能力、寿命长。

NanoBaseX

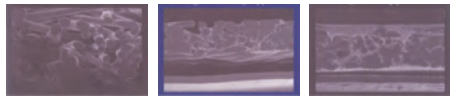
三菱纸业的湿法非织造材料具有双层结构并结合要求组合不同种类的纤维，具有高均匀度成网、高密度及极薄厚度。可提供各种无机纤维湿法非织材料，高滤效、长寿命和结构强度的双层结构的液体过滤材料以及具有柔软和豪华感的可四色套印的非织造材料。

三菱纸业正在研发中的产品：

PPS非织产品具有耐化学性、高热阻、与膜和其它材料适配性佳，超薄湿法成网聚乙烯非织产品具有超均匀性和耐化学性。

市场动态

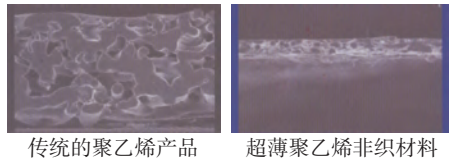
PPS非织材料的截面图像（×600）



低密度型　高密度型　应用例 PVDF层

超薄聚烯烃非织材料

*** 耐化学性、轻定量、挠性、造纸、材料设计、工艺技术，超薄聚烯烃非织材料具有优异均匀性和耐化学性。



传统的聚乙烯产品　超薄聚乙烯非织材料

应用：

*** 液体过滤
*** 空气过滤
*** 静电装置

碳纤维和再生碳纤维

碳纤维和再生碳纤维湿法非织产品具有成本和环境保护益处，可用于碳纤维增强塑料（CFRP）。

再生碳纤维　Carboplus 湿法非织产品（放大图像）　Carboplus（卷材产品）

仓敷纤维

仓敷纤维加工起源于服装用的非织造材料，通过新材料的开发、加工技术的革新，其应用范围不断扩展。开发部门在进行产品开发时，采用销售、工厂、开发合作的三位一体制造模式满足客户需求。利用充足的研究设备、各种测量仪器，不受已有观念束缚，利用独创加工技术对非织造材料进行加工。仓敷纤维的复合化技术和材料产品如：消臭、光触媒、防水透气等在过滤器领域、医疗保健领域、汽车领域、土木/建筑/农业领域、工业材料领域等与人们生活息息相关的所有环境中，发挥了非织造材料的特性。

TAPYRUS 公司

TAPYRUS 公司的熔喷非织造产品丰富多样

其特殊用途的非织造过滤介质具有高克重、超粗纤维和蓬松结构的熔喷产品对高粘性过滤是一种更好介质，将其用作纺粘非织材料的替代品可延长筒式过滤器的寿命。高克重熔喷材料类似深层过滤、增加了容尘能力，提高了过滤效率。

混合细纤维和粗纤维的超蓬松级的长寿命过滤介质：

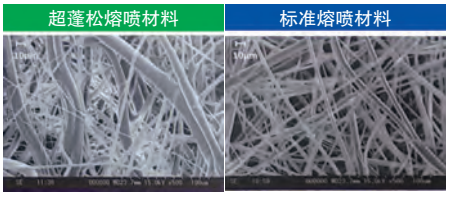
超蓬松熔喷非织材料依靠捕获颗粒物的分散效应延长了过滤器的寿命。

TAPYRUS产品特点：

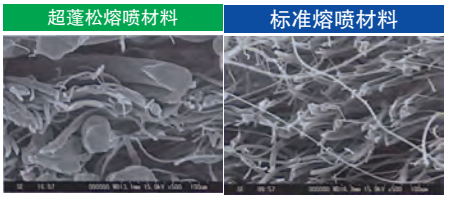
*** 纤维细度0.4μm-50μm
*** 克重7g/m^2-400g/m^2
*** 孔径直10μm-50μm
*** 柔软和悬垂性佳
*** 无粘合剂

广泛应用于电池隔膜、液体过滤、口罩、空气过滤、湿巾、咖啡过滤等领域。

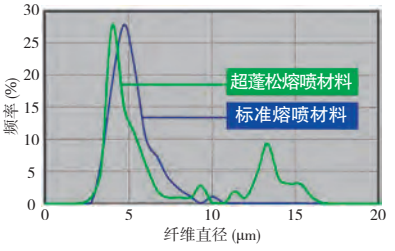
电镜表面



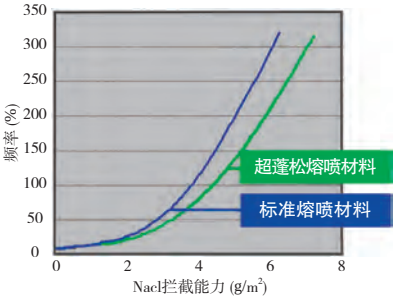
电镜横截面



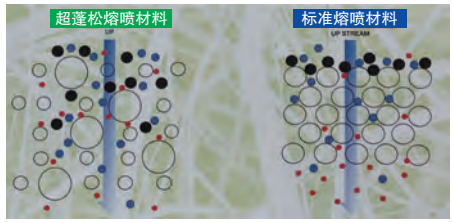
纤维直径分布

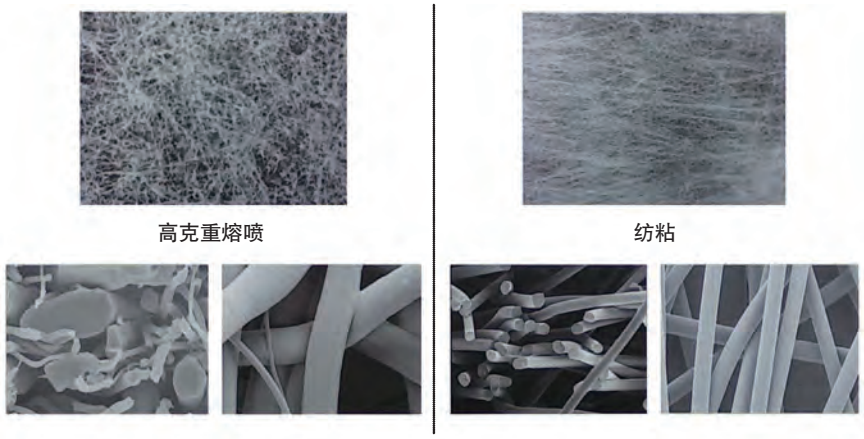


过滤负载试验



市场动态





高克重熔喷材料：类似深层过滤效果、增加了容尘能力

Teijin 的非织专用纤维及非织材料

用于正向渗透膜湿法聚酯非织材料
基于正向渗透的自吸水过滤膜。聚酯湿法非织造技术使之具有高吸水速度和高拒污率。

LED定制非织材料
以Teijin的二维传输技术所研发的LED非织材料，在二维电源片上，这种非织材料取任意状态，为各种应用可方便地附着、去附着。

筒式液体过滤器用非织材料Nanofront
Teijin的超细纤维非织材料用于液体筒式过滤器。这是一种极薄、极密的过滤介质，与传统产品比具有高流率、低压损、高精度和长寿命。在各种液体产品过滤，如现代电子产品制造中过滤悬浮液和浆体时，可以改进质量和降低成本。

研磨垫
Nanofront®是PU浸渍的多孔纳米纤维（700nm）研磨、抛光非织材料。

V–Lap 床垫
以Teijin垂直铺网V-Lap直立纤维结构非织材料制成的高缓冲性和透气高质量寝具。

改进纤维横截面的擦拭产品
通过改进纤维的横截面提高擦拭效率的非织材料。

下一代面膜材料
使用具有比普通非织材料双倍粘附力的Nanofront®非织材料可制造下一代面膜基材。

帝人的Warmal®远红外效应纤维和非织材料。

帝人的用于湿法非织材料的极细微纤维
帝人开发了采用直纺技术的0.1dtex或更细的聚酯纤维，细度的选择、保持最高的质量标准以及无可比拟的纤维分散性为薄且较高密度结构的湿法非织材料，拓展了新应用的可能性。

帝人为干法造纸非织材料开发的纤维
帝人可为干法造纸非织材料提供分散性极佳的双组份短切纤维。帝人集合了从聚合物、纤维、非织材料直至产品的研发系统按客户的需要提议适用的纤维来生产非织材料或产品。

为卫材市场热风非织材料开发PET/PE复合双组份纤维
为卫材市场热风非织材料开发PET/PE复合双组份纤维、异形PET纤维、极细PP纤维以改善非织材料的强度、蓬松性、柔软性和液体渗透性。

帝人为热风非织材料可提供注重环境友好型的ECOPET®/BioPE复合纤维。

帝人可提供高强度的Technora®芳族聚酰胺纤维；
帝人可提供高韧性的Twaron®芳族聚酰胺纤维；
帝人可提供阻燃、耐热的Tejinconex®芳族聚酰胺纤维。

无锑PET短切纤维
帝人以独有技术开发的不使用锑作为聚合催化剂的PET短切纤维。

市场动态

Aerotop® · Octa®

Aerotop®是高中空率的细旦短切纤维。常规中空纤维具有25-30%中空率，而Aerotop®具有40%中空率、具有高绝缘值（声、热绝缘值）和柔软手感。Octa®是中空、八翅异型纤维、预期可以改善擦拭应用中的括擦效果。

帝人可提供PTT纤维：SOLOTEX ®

帝人不仅可提供具有柔软、良好衬垫（弹性回复性）、环境友好的单组份纤维“SOLOTEX ®”（聚对苯二甲酸丙二醇酯），还可以与PET（聚对苯二甲酸乙二酯）和PE（聚乙烯）复合具有各种特性的双组份纤维。

吸水、除湿非织材料

超吸收性纤维“BELL OASIS®”，可应用于寝具、鞋材、吸汗材料等。

电动车用吸音材料

使用超细旦聚酯纤维、从低频至高频噪音的宽吸音效果的非织材料、特别适用于电动车。该材料不仅具有高吸音性能且能方便地与其它材料，如纺粘非织片材、薄膜等叠层复合和模压成形。

CORDLEY®合成革

Teijin Cordley Limited 是专业开发、生产、销售高性能人造皮革的公司，其产品适合各领域高端应用、具有高质量和优异产品性能的良好信誉。

电磁波屏蔽片材

该片材镀复于非织材料上，用于电子设备和零件阻断电磁噪音。随着智能手机和平板电脑的普及，轻而薄的屏蔽材料日益增加，未来有望用于混合动力车和电动车。

带传感器的防护材料

结合了名片盒大小的传感器、具有“Nanofront”优异阻隔性能的非织造智能防护服。通过预测深部体温可以减少中暑的风险。

“Nanofront®”空气过滤器

Teijin的超细纤维“Nanofront®”非织材料可用作空气过滤器的过滤介质。通过应用纳米纤维，可以同时达到高精度和高孔隙率。出色的操作稳定性和废弃处置成本可以维持与传统玻纤滤料相当或更高的过滤性能以及由于其深度过滤效果具有比膜产品更长的使用寿命。

“Nanofront®”袋式除尘器

“Nanofront®”袋式除尘器用于收集生产中产生的尘埃颗粒并释放清洁空气。此外，由于其具有比传统袋式除尘过滤器更高的透气率，因而具有高除尘效果、节能、长使用寿命。

高流率功能性纤维滤材

小片纤维质过滤介质可以除去废水中的悬浮固体。以特殊方法生产的功能性纤维质过滤介质具有出色的寿命。

应用：

*** 高温废水处理

*** 可能的精密过滤

超细“Teijinconex®”袋式除尘滤料（研发中）

超细“Teijinconex®”袋式除尘器，用于收集生产中产生的尘埃颗粒物并释放出清洁空气。此外，由于其耐高热性及应用比传统间位芳族聚酰胺纤维袋式滤料细得多的纤维，因而具有高除尘效率。

* 应用Teijin独特技术研发全球最细（6μm）的间位芳族聚酰胺

金井重工

金井重工展示了耐高温非织造系列产品，其RF300产品能耐300℃的干热高温；同时还展示了电磁屏蔽材料等产品。

NIPPON FELT

NIPPON FELT 展示了耐高温碳纤维过滤袋及高克重、大口径应用的针刺毡等产品。

三菱化学

三菱化学推出具前沿技术的轻量化、低弯曲度、适应高速旋转的高性能碳纤维增强滚筒。

东洋纺

东洋纺产品有薄膜、功能性树脂、粘合和涂层材料、过滤器、膜及组件、医疗设备、化妆材料、衬垫、产业用纤维和民用

市场动态

材料等等。本届展会展示的BREATHAIR®产品具有三维的纤维结构。具有：透气、缓冲、透水、耐久、安全、抗菌和对环境友好等性能。用它制成的床垫和枕头易于洗涤，符合SEK标准、可以限制细菌的传播，被广泛应用于医院和护理设施。由于其出色的耐用性，已被用于在N700系列新干线列车座椅、其他线路的列车座椅和摩托车座椅。

Jocob Holm

Jocob Holm展示了为各行各业擦拭用的擦巾，如洁净室、医用& 食品、制造业、生命科学、车用等，特别展示了Sontara面膜及航空航天用等级的擦巾。

旭化成

旭化成展示其独有专利铜氨丝纺粘非织材料“Bemliese™”产品，这种由棉籽绒加工而成的天然、舒适、环保非织造材料，可用于美容、医疗、工业、家庭用品等领域；同时展示了自1980年代已在生产的“拉慕思™”超细纤维绒面人工皮革产品。在拉慕思™产品生产中，旭化成是在微细纤维绒面革工业中首创使用再生超细聚酯微纤维和环境友好型的水溶性聚氨酯作为原材料。拉慕思具有由三种原材料（超细微纤维和稀松织物）组合而成的独特的三层微结构。用水刺生产的拉慕思豪华绒革可用于汽车内饰、家俱和家庭内饰、工业、服装和配饰。未来，旭化成的非织造材料仍将以其独特的技术，向世界提供具有竞争力的非织造产品。

Berry

Berry介绍了投资亚洲的第一条最先进莱芬5型非织造生产线的最新进展，并亮相全新样品。

东丽

东丽推出了具有高强和高密特性的纯聚酯长丝加工而成的AXTAR非织造布，可广泛应用于工业过滤、堤坝增强以及防草垫等农业领域。AXTAR同样适用于建筑包覆和家用包装产品。

Reifenhäuser

Reifenhäuser Reicofil是一家可提供纺粘、熔喷以及复合非织造材料生产线的制造商。在新一代RF5系列产品的基础上，又推出适用于低产能市场、低投资风险的RF Smart新生产线。最大宽度3.2米，设计年产量10,000吨，最大生产速度为400米/分钟或600米/分钟，使客户能够快速灵活地响应市场需求、经济高效地生产更小批量的产品。

Shemesh

Shemesh 是提供湿巾生产线的领导企业。

Andritz

Andritz一站式提供热风、针刺、水刺、纺粘整理、湿法成网生产线，展示了卫生用品市场的一流技术——为亚洲市场量身定制的创新非织造材料生产解决方案和后整理技术：可获得最佳柔软度导流层和表层的热风穿透粘合生产线。该生产线采用自制的平板烘房，客户可以从双组份纤维生产的高产能和高性能非织造产品中获益，产品克重16至80克/平方米；此外，Wetlace™技术提供的独特技术，在可冲散擦巾的生产中表现出色。 它将安德里茨纤网成形解决方案与安德里茨水刺单元相结合，优化了湿巾使用的湿强度，并在冲洗时快速分解。

Kelheim Fibers

Kelheim Fibers推出专用于消毒擦拭巾的新型粘胶纤维，迄今为止，粘胶纤维尽管具有出色的液体保持性，但常规粘胶纤维会结合常用于消毒的季铵盐、80%季铵盐会失效、具有负面效应，因此在实际消毒用途中、常规粘胶已不再可用。

如今由Kelheim开发的特种粘胶纤维Danufil QR 解决这一问题，可将其负面效应降纸至10%以下。因此Kelheim 已经拓展Danufil QR粘胶纤维在产品系列中、特别是擦拭巾和卫生巾的应用。

Kelheim 卫生产品系列中还有专业的Viloft粘胶纤维、这种纤维符合由INDA/EDANA颁布的GD4关于可冲散性导则的最新版本的要求、因而变得比以往更重要。

由Viloft 短切粘胶纤维生产的可冲散湿擦拭

市场动态

巾在下水道系统中的分解是如此之快、符合GD4明显更严格的要求。

当然，Viloft以及Kelheim所有其它纤维都是完全由纤维素生产的，可以在短时间内完全生物降解、满足导则的其它要求、为环保作出重要贡献。

韩国工业技术研究院（Korea Institute of Industrial Technology）

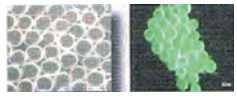
韩国工业技术研究院KITECH具有

*** 复合和纺丝平台技术——开发研究高功能性纤维

并列型双组份纤维

海岛型双组份纤维

分裂型纤维横截面



皮芯型双组份纤维

*** 非织造平台技术包括：

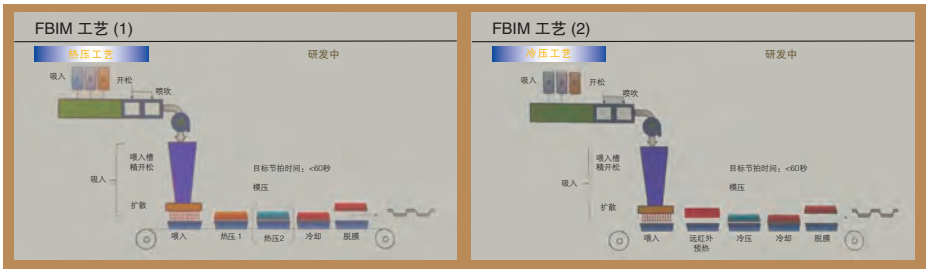
- 针刺/热粘合非织材料实验生产线
- 熔纺非织材料（双组份熔喷实验生产线）
- 水刺非织材料
- 湿法非织材料

通过均匀度技术、高蓬松和高密度技术和复合材料技术研发多功能性复合非织材料。

*** 纺织品整理平台技术（表面整理——等离子、溅射；涂层/叠层）

*** 测试评估部门（通用目的和环境耐久性、过滤和分离、化学分析和产品生态试验）

展会期间KITECH还介绍了第一、第二代旋转喷射纤维工艺（可控纤维密度分布、不同厚度组合的毡）以及其正开发的第三代纤维喷吹、注射模压（FBIM）工艺技术。



（ANFA亚洲非织造材料协会工作委员会主任 向阳）

Hayat Kimya在巴基斯坦成立子公司

Molfix尿布将在国内销售

Hayat Kimya在巴基斯坦成立了一家子公司，在国内销售Molfix婴儿尿片和Papia、Familia纸制品。世界第五大婴儿尿片制造商，土耳其公司将在该国投资1.5亿美元，称其具有巨大的增长潜力。

首席执行官Hayat Kimya M. A. Kiðýlý说：“因为我们两国的历史兄弟情谊，巴基斯坦对Hayat有着深厚的感情。”“Hayat Kimya对巴基斯坦充满信心，我们在巴基斯坦的初期投资之后，计划继续投资1.5亿美元。”

母公司Hayat集团的年销售额为30亿美元，在全球有九家子公司。Molfix，Papia和Familia在土耳其、伊朗、俄罗斯、尼日利亚、埃及和摩洛哥是领导品牌，该公司在其他国家也有强大的出口网络，如澳大利亚、马达加斯加、多米尼加共和国和也门等，使其品牌在100多个国家及数百万个家庭。

（资料来源:“www.convertingguide.com”）

印度公司销售吸油垫

WellGro科技公司的非织造垫可重复使用20次

印度Chennai的WellGro技术公司推出了可生物降解的非织造复合吸油垫，以帮助修复溢油事故和其他海洋污染。非合成的吸油垫无塑料，可重复使用多次。该公司已经在印度两个领先的研究和测试实验室测试了该产品。

结果表明，根据ASTM标准，当使用机油进行测试时，垫子的吸油量是其重量的13倍，累积吸收量将会更高，因为垫子可重复使用。据公司介绍，同一垫子最少可使用20次。

(>>> 下转42页)

市场动态

Tenowo退出印度合资企业

Supreme非织造布将由当地企业主全资拥有

Hoftex Group AG的全资子公司Tenowo GmbH将向其印度共同股东出售其在Supreme公司的49％股权。

(>>> 下转50页)

可乐丽完成对Calgon Carbon的收购

·可乐丽在活性炭和过滤介质领域跻身全球市场

·Calgon Carbon将作为可乐丽的独立子公司运营

作为独立的子公司，Calgon Carbon将作为可乐丽功能材料公司的一部分，与可乐丽的碳材料业务部门一起进行上报。功能材料公司包括甲基丙烯酸酯部门和医疗部门。

Calgon Carbon公司总裁兼首席执行官Randy Dearth说了关于并购的完成情况：“这是一个令人兴奋的开始。75年来，Calgon Carbon的产品、技术和对客户的承诺是我们业务的驱动力。而现在，当与可乐丽的支持相结合时，我们所能取得的成就是无限的。”Dearth先生和Calgon Carbon执行管理团队的其他成员将在交易结束后继续担任他们的角色。

可乐丽代表董事兼总裁Masaaki Ito说：“今天，随着全球对活性炭、活性碳服务和过滤介质的关注，可乐丽的碳材料业务比以往任何时候都更进一步。我们很高兴Calgon Carbon团队加入了可乐丽。我们相信，这种互补的组合将产生巨大的协同效应和增长机会，并且我们的目标是进一步拓展业务，这是我们未来的核心业务之一。”

可乐丽和Calgon Carbon公司有互补的产品和服务，合并后的组织将继续专注于最高品质的活性碳和过滤介质产品、设备和服务。这种结合将加强可乐丽致力于通过创新和高品质产品为人类健康和环境可持续性做出贡献。

（资料来源:“www.kuraray.com”）

供应给中国凤凰的安德里茨交叉铺网水刺生产线顺利达产

格拉茨，2018年5月25日讯。安德里茨供应给位于浙江萧山的杭州萧山凤凰纺织有限公司的aXcess交叉铺网水刺生产线已成功达产。该生产线专门用于生产擦拭和卫生用品市场上30至100克/平方米的轻质产品。安德里茨这条水刺生产线的生产速度高达100米/分钟。

此条生产线的供货范围包括：

- 完整的开松混合设备
- 2 aXcess梳理机
- 1 Profile 交叉铺网机
- 1 牵伸机
- 1 Jetlace Avantage 水刺机 以及
- 1 neXdry 热风穿透烘干机，包括一套节能的 neXecodry 烘干系统

得益于各种久经考验的节能理念，安德里茨设备支持杭州萧山凤凰纺织正进一步降低运营成本中。

杭州萧山凤凰纺织成立于2001年，是一家发展迅速的中国公司，专业生产各种纺织品。擦巾在非织造布行业，它在特别关注日本、欧洲、北美和中东地区同时，在全球范围内提供一流的擦巾、面膜和其他卫生用品。

安德里茨用于轻质非织造产品生产的交叉铺网水刺生产线

面膜

安德里茨成功启动供应给墨西哥Autoneum欧拓的neXline针刺生产线

格拉茨2018年5月30日讯；安德里茨成功启动了一条完整的neXline针刺生产线，用于墨西哥（圣路易斯波托西）Autoneum欧拓工厂生产汽车市场的针刺天鹅绒毛毡。该生产线工作门幅4.4m，生产300至800 gsm地毯系列、内衬和地板绝缘材料织产品。

(>>> 下转47页)

市场趋势

科德宝远东Spunweb公司在台湾的拓展

新产能将满足亚洲传统汽车和地毯市场日益增长的需求

科德宝远东Spunweb公司，科德宝高性能材料和远东Spunweb公司，计划在台湾桃园区增建一条生产线，产能的扩大将使该公司能够满足亚洲传统汽车和地毯市场日益增长的需求。

通过新的生产线，科德宝在桃园非织造布年产量增加约11000公吨。科德宝首席执行官Frank Heislitz说：“我们产能的扩张凸显了我们对亚洲的长期承诺，我们希望继续支持我们在汽车和地毯市场的客户，提供创新和可持续的解决方案，帮助他们在性能材料方面成长。”

科德宝目前为亚洲这两个市场提供用于汽车地毯的背衬和衬垫，以及跑步垫、地毯和块式地毯。高性能材料易于成型，因此有助于加工。此外，它们的高稳定性确保了精确的适用性，且非常耐用。

这种产能扩张也将使科德宝发展并巩固该公司在这些区域的地位。远东Spunweb公司总经理Lin Gow Ming表示：“亚洲是我们作为全球参与者的一个非常重要的市场。通过我们领先的技术解决方案，我们希望继续与本地区的客户共同成长，同时对他们的成功做出重大的技术贡献。”新生产线的建设预计将于2020年完成。

（资料来源:“www.innovation intextiles.com”）

印度政府推出可生物降解的卫生巾

经济型san pro产品在国际妇女节前夕发布

据“印度时报”报道，印度政府称在国际妇女节前夕推出了可降解卫生巾，在Pradhan Mantri Bhartiya Janaushadhi Pariyojana Kendras销售，价格为每片2.50卢比或约40美分，将以Suvidha品牌名称出售。

化学品和化肥部长Ananth Kumar说，卫生巾将以每盒4片10卢比的价格出售，约为1.60美元，在PMBJP的3200个店出售。

Kumar补充说：“当四种卫生巾的平均市场价格大约为32卢比（50美分）时，政府推出了这些价格更经济的含氧生物降解垫，为了妇女的健康安全，特别是针对那些处于特权之下和农村地区的人们。”

（资料来源:“www.convertingguide.com”）

美国棉花公司增加水刺生产

将制造100%纯棉水刺非织材料

美国北部卫生和美容棉产品的领军制造商美国棉花有限责任公司已经在北卡罗来纳州加斯托尼亚安装了第一条水刺生产线，用于生产100％纯棉水刺非织材料。美国棉花公司现在能够以各种重量和图案制造100％纯棉水刺材料，用于化妆品、卫生、医疗和工业市场。

在过去的140年里，美国棉花公司和其母公司Parkdale Mills一直在创新研究以棉花为基础的产品的生产。水刺生产的加入扩大了这种产品组合，并为其价值链增加了另一个环节。

（资料来源:“www.convertingguide.com”）

Glatfelter的新干法造纸生产线完工

22,000吨的投资将使阿肯色州受益，在市场上激起涟漪

北美的干法造纸市场正在为Glatfelter的新型干法造纸生产线的启动作准备，这是该市场十多年来的首次重大投资。Glatfelter将于本月开始投产，预计将于2018年第一季度下半年开始供应市场。

世界上最大的干法造纸生产商之一Glatfelter早在2015年初宣布，将在美国的阿肯色州的Fort Smith增加一条新的轻质生产线，使其全球产能增加22,000吨。

行业顾问Phil Mango说：“北美干法造纸市场对于22,000吨产能的走向有很多不满和担忧。”

Glatfelter在宣布这条新生产线时表示，这是重要的工业订单的结果，靠近现有的擦巾制造商Rockline Industries和Kimberly-Clark工厂的阿肯色州工厂，已经让很多人猜测这些客户是谁。

上个月，该公司高级干法造纸业务部副总裁Chris Astley告诉当地利益相关者，公司在过去几周雇用了约20名员工。其中一些

市场趋势

员工已参观过位于加拿大魁北克Gatineau和德国Falkenhagen的现有Glatfelter干法造纸生产线，以熟悉该技术。

预计该投资将为阿肯色州的Fort Smith地区带来80个高科技制造业岗位。该厂址击败了其他十几个地点成为Glatfelter下一个北美工厂。

而且，Glatfelter已经公开了关于新线的技术计划，称将它作为优先级，有助于它在轻质卫生用品及用即弃擦拭产品中的发展，已经处于增长模式的市场，去年增长12％。

2015年，女性卫生应用占据了Glatfelter的销售额74％，而擦巾占销售额的不到10％。首席财务官John Jacunski最近告诉分析师，在阿肯色州（包括一个卓越中心）的投资将使Glatfelter能够在不影响其女性卫生产品效率需求的情况下瞄准擦巾。

他表示：“新生产线将为投资组合带来额外的收益，这是一件好事，同时我们向所有客户保证愿意并能够支持其增长。”

自2000年初以来，北美并没有看重干法造纸的投资，当时Buckeye（现在是Georgia-Pacific的一部分）在北卡罗来纳州增建一条50,000吨的生产线，同时Concert Industries（现在Glatfelter旗下一家企业）在魁北克Gatineau增建了两条并列生产线。

这条新生产线对于其他尤其是北美地区无干法造纸行业意味着什么还有待观察。随着Glatfelter在擦巾市场的影响力不断扩大，其主要竞争对手Georgia-Pacific不得不寻找新的市场以填补产能，如女性卫生用品或桌面用产品，其中大部分是在北卡罗来纳州Gaston生产线制造的，该生产线是Buckeye Technologies2001年建成。该线是现在世界上擦巾质量最佳的干法造纸生产线。据说这是最快的、最具成本效益的，并提供了很多优势的生产线，Mango说。

“2001年新增的生产线非常适合生产擦巾，并且已经取得了成功”，Mango补充道。“Glatfelter证明他们可以，只是时间的问题。”

Mango认为，平衡点是老式的干法造纸线，比如G-P的Green Bay生产线已有几十年的历史了。G-P可以选择将这条生产线闲置，但它为工业擦巾应用提供了许多优势。Mango说：“它更有可能是G-P将重点开发新的应用”。

北美其他干法造纸公司，McAirlaids和Domtar，将不会受到轻量级产量的影响。McAirlaids在医疗业务方面面临一些挑战，并一直致力于在食品垫和自有品牌护理垫等领域中发挥作用。与此同时，Domtar的干法造纸业务主要集中在吸收芯层应用，主要用于个人护理业务。

（资料来源:“www.nonwovens-industry.com”）

General Nano推出VeeloVEIL

金属技术提供雷击保护

General Nano公司推出了VeeloVEIL，这是一种新型轻质，柔性，导电金属非织造布技术，与航空航天和国防客户共同开发，以满足航空航天业对复合材料飞行器中雷击保护和电磁环境影响的严格要求。随着航空航天工业从金属向复合材料飞行器的过渡，对于具有多功能价值的新型导电轻质材料的需求很容易集成，并对现有复合材料制造工艺进行改进，已成为航空航天OEM及其供应商的普遍现象。

General Nano首席执行官兼共同创始人Joe Sprengard说：“近四年来，我们一直在与世界上一些最具声望航空航天公司合作开发新一代导电材料，以支持当前和未来的航空航天平台和任务。VeeloVEIL是General Nano公司开发能够满足客户需求的差异化的最新产品。”

VeeloVEIL为复合材料行业的金属化非织造布技术提供了新的性能，为具有复杂几何形状的复合材料部件提供了超低电阻率，低面积重量和延展性的独特组合。与市场上其他金属化非织造产品相比，VeeloVEIL在相同克重的情况下的电阻率要低四倍以上。

（资料来源:“www.convertingguide.com”）

英国公司生产塑料的协定

市场趋势

公司承诺到2025年塑料包装做到100%可重复使用，可回收或可降解

数十家英国公司正式承诺到2025年消除不必要的一次性塑料包装。根据“英国塑料协定”，包括主要食品和饮料品牌、超市、零售商和塑料再生加工商在内的企业已同意所使用的塑料包装100%可循环使用、可回收、可降解，并确保从现在到2025年之间70%塑料包装有效回收或降解。

包括主要食品和饮料品牌、超市、制造商、零售商和塑料再加工商在内的42家公司还将确保到2025年所有塑料包装应含有30%可回收成分。

该协议的公布是在广泛关注塑料废物污染农村和世界海洋的问题之际，因为这些塑料废物会危害野生动植物并进入食物链。英国塑料协定组织领导的废物减少机构Wrap表示，涉及的企业负责超过80％的英国超市销售产品的塑料包装。此外，包括英国零售联盟和食品和饮料联盟在内的其他15个组织也签署了该协定。

尿裤制造商宝洁公司表示，它的目标是在2030年前将几乎所有的包装都作为其Ambition 2030环境可持续发展计划的一部分重复使用或回收利用。

（资料来源:“www.nonwovens-industry.com”）

Don & Low新增纺粘生产线

该投资着眼于产业应用

根据母公司Thrace Group的战略，Don & Low已同意购买一条新幅宽为3.2米，Reicofil 4型的双组分纺粘生产线，该线为产业用纺粘市场专门定制。新的投资将可以让这家英国唯一的纺粘生产商的产能提高5000吨。此次扩张是继公司2016年购买欧瑞康纽马格熔喷生产线投资之后的新运作。

纳入此项投资的新技术将扩大公司的生产能力，增加产品供应种类并提供技术解决方案以满足未来客户和市场需求。此项投资将进一步巩固Don & Low作为产业市场技术领导者的地位。

新Reicofil 4型生产线具有独特功能，专门针对其工业应用进行了配置，以生产出具有更高强度和各向同性的纺粘非织材料。此外，该生产线将使用聚丙烯和/或聚乙烯组合生产单组分和双组分纺粘产品，提供改进的长丝分布。该生产线将进一步受益于Reifenhäuser的最新数字平台。这笔投资预计将于2019年4月投入使用。

此外，该投资将使公司非织材料设施扩展，创造一个全新单元，建立一个卓越的二次加工中心，投资一条高产三色印花生产线。这项扩展工作将于2018年4月完成。

（资料来源:“nonwovens.com”）

Patanjali公司进军印度卫材市场

公司在2018年推出Shishu Care尿片

在食品和美容产品领域烙上自己的印记后，Patanjali已经开始着眼于印度的尿布和卫生巾市场。由瑜伽大师Baba Ramdev领导的这个品牌将在下个财政年的第一季度推出婴儿和成人尿裤以及经济型卫生巾。

据消息人士透露，Patanjali将采用裤型尿片进入市场。尤妮佳的妈咪宝贝小内裤是该国第一个进入该类型尿片市场的公司，随后金佰利公司和宝洁公司接踵而至。今天，偏向于裤型的产品，约占整个市场份额的80％。

尿片将在Patanjali的Shishu Care品牌下推出，该品牌已经包括精油、洗发水、肥皂和爽身粉产品。

卫生巾在印度的普及率仅为20％，一次性尿片的渗透率不到2％。随着印度人们卫生意识的增强，这两种产品比率都将增加。

（资料来源:“www.convertingguide.com”）

（<<< 上接38页）

使用ASTM和AATCC标准进行的测试表明，垫子和油浸透的垫子会降解并且显示强度损失，这是降解的一个指标。

WellGro技术公司总裁Venkatakrishnan Ramanujan说，由两个大众认可的实验室进行了积极的第三方测试，证明开发环保型吸油垫的努力已经获得成功。该公司专注于出口市场，在这些市场上，使用可生物降解的吸油技术的意识很高。

（资料来源:“www.convertingguide.com”）

2017年中国大陆非织造材料产量

全国非织造科技信息中心

2017年非织造材料按加工工艺分类的产量比较

加工工艺	2015年		2015/2014	2016年		2016/2015	2017年		2017/2016
	产量(万吨)	百分率(%)	增长率(%)	产量(万吨)	百分率(%)	增长率(%)	产量(万吨)	百分率(%)	增长率(%)
纺熔	137	46.58	+12.3	150	46.01	+9.49	169.53	45.76	+13.02
其中：纺粘(含纺粘与熔喷复合)	132.5	45.05	+12.28	145	44.48	+9.43	164	44.26	+13.10
熔喷	4.5	1.53	+12.5	5.0	1.53	+11.11	5.73	1.54	+14.6
干法成网	145.7	49.54	+10.73	163.85	50.26	+12.46	188.17	50.78	+14.84
针刺	68.2	23.19	+7.40	74.7	22.92	+9.53	80	21.59	+7.09
化学粘合	12	4.08	+4.35	12.5	3.83	+4.17	13	3.51	+4
热粘合	13.5	4.59	+0.74	15.1	4.63	+11.85	18.5	4.99	+22.51
水刺	50.4	17.14	+21.45	59.9	18.37	+18.85	75	20.24	+25.21
缝编	1.6	0.54	+6.67	1.65	0.51	+3.13	1.67	0.45	+1.21
干法造纸	8.4	2.86	+2.44	8.6	2.64	+2.38	8.8	2.38	+2.33
湿法成网	3	1.02	+57.9	3.55	1.09	+18.33	4	1.08	+12.68
合计	294.1		+11.61	326		+10.85	370.5		+13.65

2017年中国大陆非织造材料主要用途

	2015		2015/2014	2016		2016/2015	2017		2017/2016
	产量(千吨)	百分比(%)	增长率(%)	产量(千吨)	百分比(%)	增长率(%)	产量(千吨)	百分比(%)	增长率(%)
医疗卫生用品	1196	40.67	+13.90	1378	42.27	+15.22	1635	44.13	+18.65
絮片	217	7.38	+7.43	232	7.12	+6.91	250	6.75	+7.76
包装材料	274	9.32	+14.17	298	9.14	+8.76	325	8.78	+9.06
擦拭清洁材料	318	10.82	+18.22	360	11.04	+13.21	411	11.09	+14.17
土工合成材料	151	5.14	+4.14	156	4.79	+3.31	171	4.62	+9.62
涂层复合基布	84	2.86	+5	87	2.67	+3.57	90	2.43	+3.45
防水材料、油毡基布	96	3.27	+4.35	99	3.03	+3.13	108	2.91	+9.09
家具内饰	74	2.52	+4.22	76	2.33	+2.70	79	2.13	+3.95
衬布	48	1.53	+2.13	49	1.50	+2.08	50	1.35	+2.04
鞋材	46	1.56	+3.37	47	1.44	+2.17	48	1.29	+2.13
汽车内饰	138	4.70	+6.9	147	4.51	+6.52	163	4.40	+10.88
过滤材料	206	7	+17.71	237	7.27	+15.05	276	7.45	+16.46
农业	17.1	0.59	+4.91	17.6	0.54	+2.92	18	0.49	+2.27
造纸毛毯	9.9	0.34	+2.06	10	0.31	+1.01	10.1	0.27	+1.0
其他	66	2.25	+2.33	66.4	2.04	+0.61	70.9	1.91	+6.78
总计	2941		+11.61	3260		+10.85	3705		+13.65

不织布弹性膜

王维汉
逢甲大学 纺织工程系

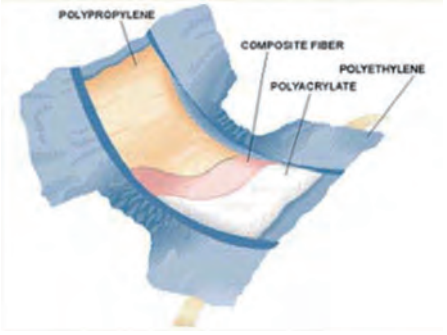
摘要

*众所周知，一般的尿布膜系使用PE/PP+碳酸钙填充材料拉伸而得。主要的影响因子包含PE/PP的MI，填充量与拉伸方式等。
*而衣用防水透湿贴合膜本身就是防水透湿的功能，不须要额外的添加填充材料。然而一般的尿布膜毕竟是塑料，市场已经出现弹性尿布膜的需求。
*本文主要是比较一般的尿布膜与防水透湿膜机构的异同，并描述弹性尿布膜的材料与制造方法。

议程

*高分子膜的分类与进化
*布与不织布的贴合差异
*Infuse TPO 高分子膜
*马桶可冲膜
*尿布膜机构原理
*尿布膜加工参数
*拉伸结合积层材
*最适化双轴拉伸尿布膜

尿布结构



透气膜

PE膜（底层）

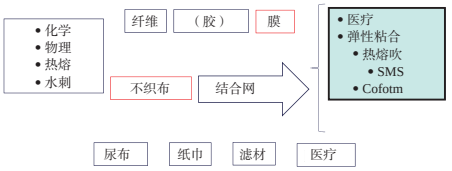
这是尿布中一种常见的片状材料，它们是疏水的非织造布膜。这层材料在尿布中阻隔了液体的穿透。有些时候PE膜将会被使用。这是为了预防尿液从尿布从泄露。

透气/布状底膜

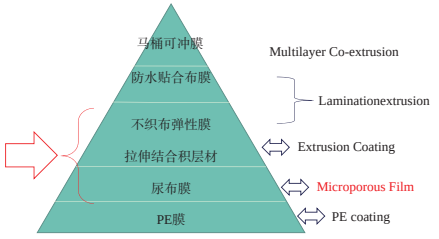
有些时候这种PE底膜会被薄的聚丙烯非织造片材给予透气/布状外观替代。这个工艺将通过熔喷或者直接挤出到非织造布上再加热和加压方法实现。

透气/布状底膜不是真的机织布组成，是由PE非织造布膜制成。

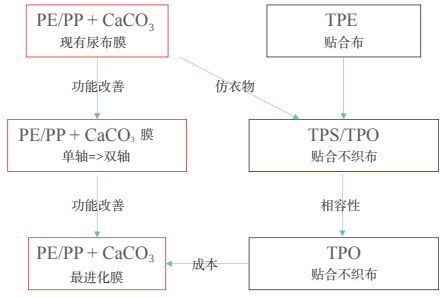
不织布产业的结构



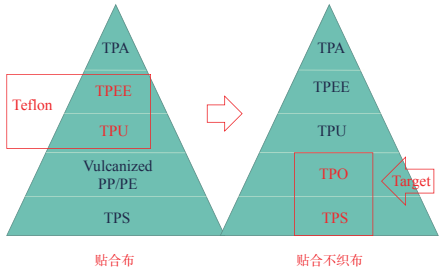
从不织布的观点看膜的分类



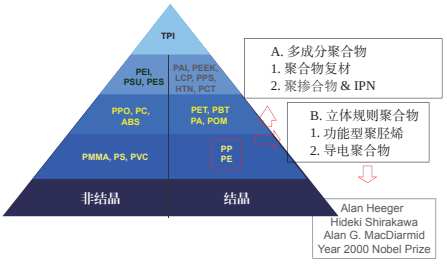
不织布弹性膜的分类与进化



布与不织布的贴合差异



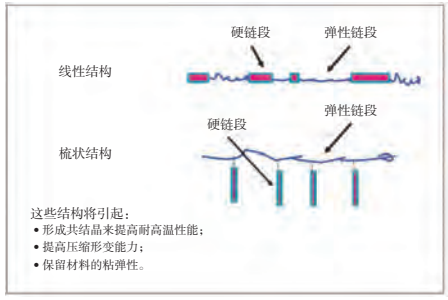
Ziegler–Natta 催化剂的衍生应用



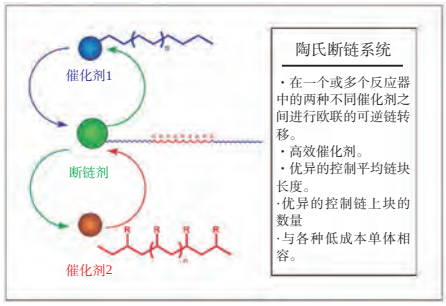
技术信息

卫生应用的产品组合

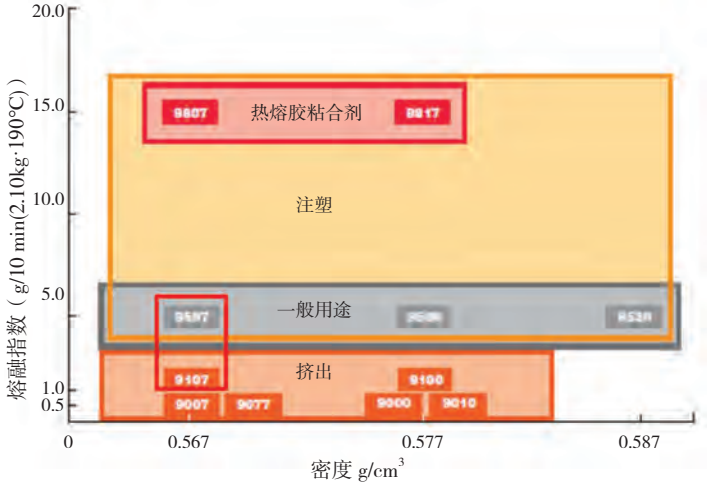
TPO的分子结构



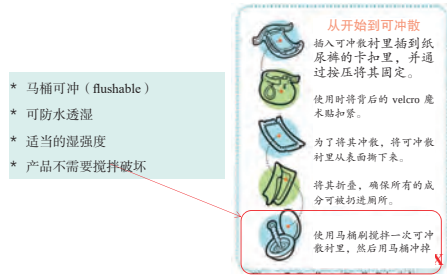
断链剂（CSA）



Infuse 聚烯烃块状共聚物

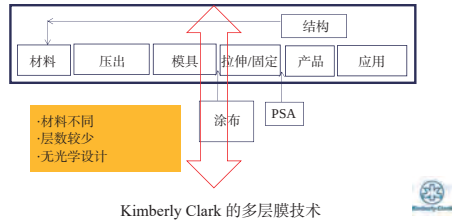


马桶可冲膜



* 马桶可冲（flushable）
* 可防水透湿
* 适当的湿强度
* 产品不需要搅拌破坏

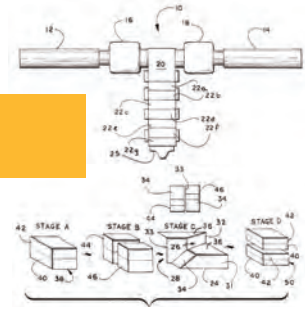
3M光学多层膜制程

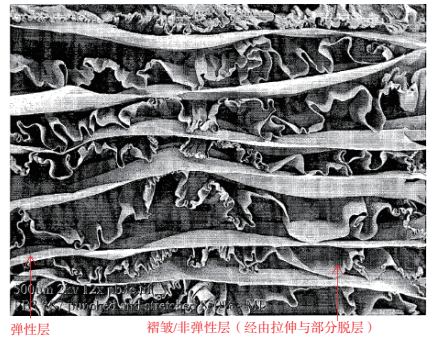


Kimberly Clark 的多层膜技术

马桶可冲膜

聚合物改性
·混合& IPN
·共聚
·共压多层膜





膜中褶皱

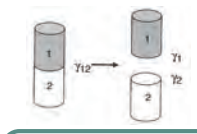
- 弹性层/非弹性层
- 双轴延伸
- 弹性层回复
- 非弹性层可延伸但不回复
- 弹性层与非弹性层部分脱落
- 部份脱层的非弹性层受弹性层限制而卷曲

技术信息

- 在经纬方向收缩
- 在厚度方向膨胀

双轴拉伸尿布膜（PE+$CaCO_3$）

黏着力与内聚力



键结破坏能 Bond failure energy =
1. 可逆黏着功，W_A
2. 不可逆黏着变形
实际黏着 = $W_A + f(W_A)\zeta$
ζ 与黏着剂的粘弹性有关

・内聚破坏
$W_C = 2\gamma$
・黏着破坏
$W_A = \gamma_1 + \gamma_2 - \gamma_{12}$ (Duprey 公式)
$W_A = \gamma_{LV} + \gamma_{SV} - \gamma_{SL}$ (Young's 公式)
$W_A = \gamma_{LV}(1+\cos\theta)$ (Young Duprey 公式)

高分子填充材料的成孔与成长机制

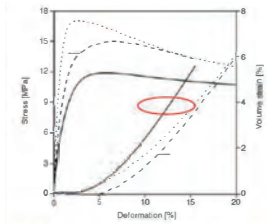
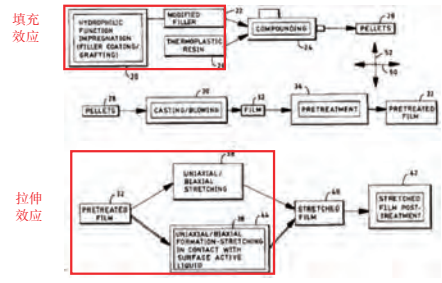


Figure 1. Stress vs. strain and volume strain traces of PE composites containing 20 vol% $CaCO_3$ filler.
— PE04 - - PE07 ····· PE11

型号	商用名称	制造商	熔融指数 (g/10min)	密度 (g/cm³)	模量 (GPa)
PE04	Dowlex 2037	Dow	2.5	0.935	0.4
PE07	Tipolen FB 472	TVK	0.7	0.947	0.7
PE11	Tipolen ME 610	TVK	6.5	0.961	1.1

填充与拉伸效应



涂布填充材料拉伸加工参数

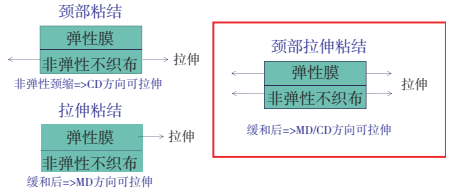
* 填充效应：颗粒大小，界面分布，界面能，填充量。
* 拉伸效应：拉伸温度，拉伸速度，拉伸比，拉伸形式。

涂布填充材料的拉伸机制

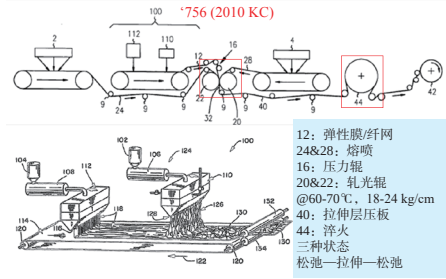
有机高分子（低表面能）

无机填充材料（高表面能）	涂布填充材料（低表面能）
（界面力>内聚力）=>接触角>0 低表面能完全“润湿”高表面能	（界面力<内聚力）=>接触角>0 =>低表面能完全“润湿”高表面能
一般的高分子填充材料，界面张力大，填充材料补强用。界面键结力>高分子降伏应力（yield stress），界面是应力集中点，破坏呈现“脆性模式（Brittle mode）”。	涂布填充材料，表面张力小，填充材料系成孔用。界面键结力<高分子降伏应力，界面“不”是应力集中点，破坏呈现“韧性模式”（Ductile mode）。

拉伸结合积层材料种类



拉伸结合积层材



12：弹性膜/纤网
24&28：熔喷
16：压力辊
20&22：轧光辊
@60-70℃，18-24 kg/cm
40：拉伸层压板
44：淬火
三种状态
松弛—拉伸—松弛

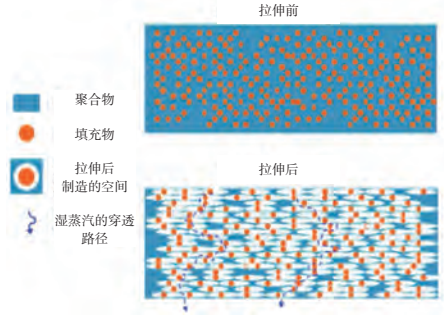
单轴与双轴的不同

高分子填充材料成孔机构

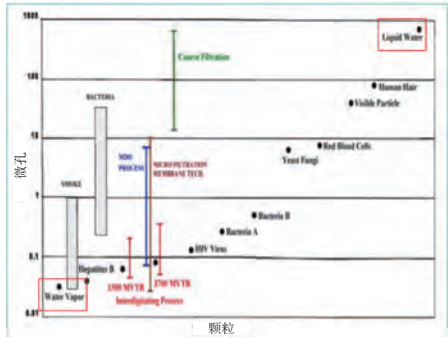
- 剥离成孔：介面能↓；粘结↓。
- 孔径成长：温度↑；应力↑。
- 空孔合并：填充量↑；拉伸比↑。

	单轴	双轴
连结性	独立	相通
形状	长条	圆/椭圆
空隙	低	高

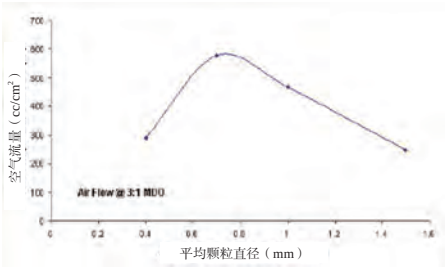
PE/PP微孔膜



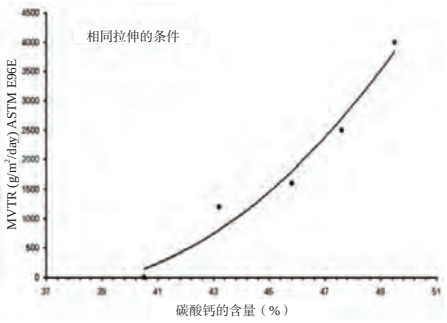
水气与颗粒大小的比较



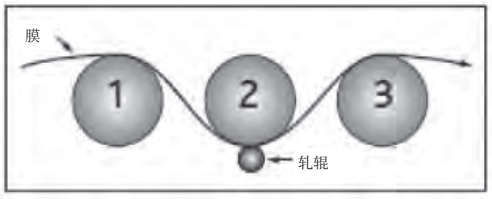
透气速度与颗粒大小

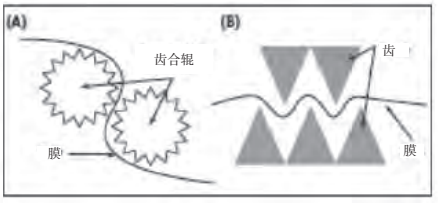


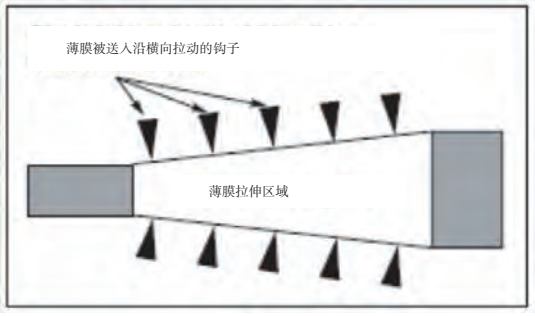
水气透过率与填充量的关系



防水透湿膜横向拉伸方式







不织布功能膜的核心技术

- 马桶可冲膜
- 不织布弹性模
- 拉伸结合积层材
- 尿布膜

三项核心技术：

1) 透气性：界面+力学
2) 柔软性：TPE+贴合
3) 马桶可冲：纳米共压多层

结论

- 布与不织布的贴合存在基本的差异；
- 介绍新的块状共聚物：适用与不织布的TPO膜；
- 简介马桶可冲膜；
- 简述高分子填充材料的成孔与成长机制；
- 双轴拉伸尿布膜的涂布填充与拉伸效应；
- 简述拉伸结合积层材；
- 介绍最适合双轴拉伸尿布膜PE+$CaCO_3$参数。

参考资料（略）

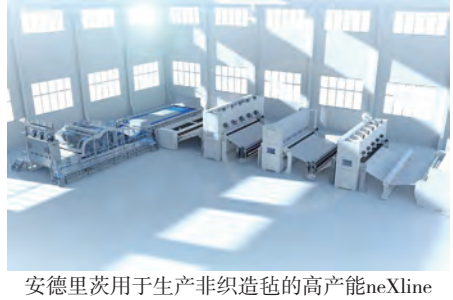
（资料来源:“ANFA 会议论文集，本篇已节选”）

(<<< 上接39页)

其供货范围包括了结合安德里茨牵伸和针刺技术的Dynamic eXcelle 系列梳理机和交叉铺网机。 安德里茨还提供了工艺控制设备以及独特的ProDyn闭环系统，为终端产品提供持续的网络监控和优化。 采用在线、双植绒型号为SDV-2 + 2的针刺机，最高速度达10米/分钟，安德里茨针刺生产线的产能超过1200千克/小时。

该订单再次证明了安德里茨与欧拓之间牢固而长期的合作关系。 欧拓已经在美国宾夕法尼亚州的布卢姆斯堡和美国印第安纳州的杰佛逊维尔以及欧洲和亚洲的生产线上运营了多条安德里茨生产线。

Autoneum欧拓总部位于瑞士的温特图尔，是全球领先的汽车音响和热管理供应商。该公司为室内地板和发动机舱以及车身底座开发和生产多功能的轻型部件和系统。 客户囊括几乎欧洲、北美和南美、亚洲和非洲的所有汽车制造商。欧拓拥有55个生产实体，它遍布25个国家的员工超过12,000名。



安德里茨用于生产非织造毡的高产能neXline eXcelle 针刺生产线

欧拓超轻非织造地毯

技术发展趋势

超声波技术在非织造布上的应用

设备制造商在非织造布行业中更多地使用粘合技术

超声波技术正越来越多地被应用于非织造布行业的各个领域，包括吸收性卫生产品、过滤、汽车、电缆行业等。一般来说，超声波粘合是通过使用高频率声音振动产生局部热量，使得热塑性纤维粘合的工艺。该技术有时能够替代其他粘合方法，例如在某些特定应用中使用的粘合剂以及热粘合工艺。以下是一些超声波技术主要制造商在非织造布行业所做出的创新。

Chase见证了超声波技术在过滤行业中的增长

Chase机械和工程公司为众多行业的客户提供可定制的宽幅处理设备，其中包括医疗、非织造布、加工、土工布、挤出、过滤和包装领域。20世纪70年代后期，该公司在为“魔术贴”制造了第一台超声波分切机。

Chase机械工程总裁Guy Gil说：“正是在那个时候，我们意识到超声波技术可以为用户带来巨大的利益。”

从那时起，Chase机械和工程公司就已经制造出宽度从9英寸到144英寸不等的超声波层压机、压花机、分切机、切割长度和拼接设备。几乎所有涉及到非织造布的行业都可以使用该设备。

多年来，Gil在过滤和医疗行业见证了超声波技术应用于非织造布层压、切割和拼接。Gil说“随着非织造布制造商不断改进产品，用户寻求更多的应用，经常会选择超声波技术来组装材料。”与其他粘合技术相比，超声波技术具有一定的优势，因为它是一种干净且能有效的连接或切割合成材料的方法。Gil解释说：“尽管初期的投资较大，但长期收益远不止于此。热油或电加热系统等需要初始预热循环才能使模具达到工作温度。然后，在运行时会有大量的热量流失。”

另一方面，Gil说超声波技术是即时的。“操作员可以启动和停止设备，而无需担心正在处理的物料熔化。这也是一种非常干净的层压方法，因为不存在可能随时间泄漏的软管或旋转接头。”

最近，Gil看到了超声波技术与过滤产品制造商获得的共同利益，因为过去他们通常使用粘合剂或针线进行组装。他继续说道：“寻找替代方法的主要动力与成本和质量有关。粘合剂价格昂贵，而缝纫会在产品上留下孔洞。超声波技术将非织造材料熔合在一起形成气密密封，这比在接缝上施加粘合剂或接缝带好得多。”

Herrmann开发腹部拭巾技术

德国Karlsbad的Herrmann超声波公司为机械制造商和用户提供超声波粘合技术，公司最近开发了一种新的自动化超声波装配线，为葡萄牙医疗公司Bastos Viegas提供了一种名为texart的新型专利腹部拭巾，其具有完整的超声波层压和密封步骤。

据Herrmann介绍，以前生产拭巾需要复杂的缝纫过程，包括大量的人工操作步骤。新型拭巾技术能够实现卷绕-成品-产品装配的自动化。Bastos Viegas开发并获得专利的最新材料由三层制成，采用了机织和非织造技术。由聚酰胺/聚酯制成的具有X状交叉结构的织物网放置在两层射流喷网非织造布（70％粘胶和30％聚酯）之间。产品起皱的表面增加吸收率并产生柔软的海绵状感觉。

据Herrmann公司非织造销售总监Markus Pasternak介绍，超声波发生器设计和新型特殊涂层使Herrmann能够解决像腹部拭巾这样的新应用。Pasternak说：“作为欧洲最大的非活性医疗设备供应商之一，Bastos Viegas长期以来一直在使用超声波技术。产品中不添加任何额外的材料，使超声波技术一举成名，并使其在医疗应用中取得成功。”

Pasternak说，Herrmann一直在开发新的超声波系统。公司最近开发的连续应用产品是Ultrabond 48.20的高功率发生器。Ultrabond系列产品的数字超声波发生器技术专为连续焊接工艺而设计，连续功率范围可达8000瓦。DSP（数字信号处理器）可补偿故障影响，并确保100％占空比下的可重复超声波输出。接下来，Herrmann将在市场上推出一种全新的Microbond控制系统，使客户能够对超声波过程进行可视化，并进一步了解超声波过程。

技术发展趋势

Pasternak对超声波应用的兴趣持续增长，最高的兴趣仍然来自于卫生应用。Herrmann在德国、美国、中国和日本的四个总部开发并测试了人耳、弹性叠片和结构、ADL、核心等新应用。在非织造布制造、过滤、汽车及其他行业，Pasternak证明了超声波有很多优点。他总结道：“有趣的是材料供应商正调整他们的配方来制造更多适合用超声波技术的材料。”

Sonobond宣传户外用防护罩技术

Sonobond Ultrasonics作为其超声波技术组合的一部分，提供插入式焊机、旋转焊机、旋转切割机和手持切割机。为最好地处理新的应用程序，该公司还可以制作新的定制工具。

据公司总裁Janet Devine介绍，超声波技术的发展趋势与非织造布使用的增长趋势一致，尤其是在2017年。特别是，该公司对用于医疗/卫生行业的具有非织造材料的层压背衬的超声波粘合材料已经有了大量的关注。这些产品包括床垫、轮椅垫以及医疗设备和器械。

Devine说，与其他粘合方法相比，超声波具有许多优点，但最重要的优势是能够密封材料而无需在产品上打孔。她说：“尤其是对于防水产品而言，这可以防止液体渗透或从缝隙中泄漏。”

采用Sonobond技术，接缝可以通过旋转系统一次性粘接和修剪。此外，超声波粘合或切割比缝合或粘合速度更快且通常更经济。她解释说：“使用超声波切割具有密封材料边缘的优势”。

最近，Sonobond一直在推广使用超声波作为户外用途的保护膜，超声波无缝封接有助于保持室外产品的持久质量和效果。制造商正在将超声波技术用于汽车、房车、摩托车和船只等汽车覆盖物；户外家具套和坐垫衬垫；烧烤炉盖和产品运输的保护性覆盖物。

据公司副总裁Melissa Alleman介绍，Sonobond技术可以将100％合成纤维或混纺产品与高达40％的天然纤维进行超声波粘合。

Sonobond提供两种特别适用于组装防护罩的超声波粘合部件。Sonobond的SeamMaster High Profile超声波缝纫机虽然在外观和操作上与传统缝纫机类似，但在轮子和喇叭之间有很高的间隙，可以增加手动应用的曲线和公差。该装置可以一步缝合、修剪和密封，并提供多种可互换的图案辊，也可以卷边、压花和印刷。该机器操作简单，并将多项步骤合并，节省了人力、时间和财力。它还可以作为一个模块化单元、集成到生产线中。

对于大型的、多层或难以粘接的材料，Sonobond提供SureWeld 20超声波切入器。坚固耐用的焊接压机和重型电源的组合，本机的焊接喇叭和嵌套或固定装置可以进行定制，从而以优异的可重复性能实现客户的特定应用。

Spoolex提供一系列技术

Spoolex是一家纤网转换设备制造商，根据其Calemard和Decoup +品牌设计和制造超声波技术。该公司于1975年推出了第一系列超声波设备。Spoolex一般是由Decoup +开发的手动设备，工作站和分切头集成到现有机器上，Calemard制作在线或离线的拼接解决方案。Calemard还配备了Decoup +技术超声波切割头的分切复卷机。

对于卫生方面的应用，Spoolex提供超声波拼接工作台/模块，可在线安装，以便在切割和重绕先前连接两个非织造材料网，或者在单个焊盘或线轴上进行长度较长的产品卷绕操作。这些模块可半自动也可全自动操作使用。超声波拼接台/模块可以离线安装，以连接两个非织造材料大网。超声波分切头可安装在分切复卷机上，用于带有耐磨、柔软和干净密封边缘的胶带。Spoolex还可以提供一个单独的超声波焊接站，用于“缝合”操作，无需任何额外的材料。

Spoolex纺织和非织造布部门销售经理Pierre Croutelle表示：“超声波技术非常适用于过滤、卫生、电缆行业和安全气囊的生产，例如，因为它运行强大，不可见且可靠的普通接头，无需如胶水、粘合剂、针线等外部元件。”

（资料来源:“www.nonwovens-industry.com”）

产品集锦

JX Nippon ANCI开始生产新型过滤介质

JX–CFF是100%的聚酯长丝非织材料

JX Nippon ANCI总部位于美国乔治亚州的Kennesaw，在亚拉巴马州的Roanoke生产，在乔治亚州的Dalton复合加工，已开始生产JX-CFF（长丝过滤纤维），这是一种比传统纺粘原料更均匀的聚酯非织材料，公司称，可根据孔径要求进行定制生产。

JX-CFF是100％聚酯长丝产品，它采用热粘合的专有技术，根据客户的具体要求，以精确控制孔径和拉伸性能将各种聚酯材料进行复合。JX-CFF包括下列纤维尺寸：

- 常规纺粘聚酯：5 dpf（23微米）
- Milife微细纤维聚酯：1 dpf（10微米）
- Milife超细纤维：0.07 dpf（2.7微米）

在不同的单位重量情况下，采用专有的粘合技术将上述纤维进行各种粘合，JX Nippon能够根据客户的要求生产各种范围的定制纤维网。例如，JX-CFF产品的孔径可以在10-100微米的范围内。另外，纤维网的特性可以进一步受到JX-CFF中各种纤维尺寸的分层顺序的影响。

JX-CFF的替代版本包括以下根据客户的要求：JX Nippon的CLAF（PP或PE增强型网），它可以帮助清洁污垢/灰尘；独特的多层膜；其它非织材料如水刺、熔喷、双组分和纳米产品。

（资料来源:“www.inda.org”）

Albarrie展示针刺毡，整理性能

加拿大制造商展示两种新的过滤产品

Albarrie是特种纤维的领军生产商。其核心是先进的针刺毡技术，拥有多条生产线，包括宽幅、重型和管状针刺毡加工。这些专业工艺生产线可以将纤维混合，分层/支撑材料整合在一起，生产4-120 oz/yd^{2}的工程产品。

公司还拥有广泛的整理能力来定制产品，并满足苛刻的性能规格要求。整理能力包括复合、涂层、浸渍、热处理、烧毛和热轧。

在2017年美国过滤展，Albarrie展示了公司专有的两种过滤织产品：针刺玄武岩纤维产品（P84，PPS和Polyox）以及含有聚恶二唑纤维的产品，也被称为Polyox。这些组合具有独特的性能，市场上没有其它过滤产品可以比拟。

（资料来源:“www.nonwovens-industry.com”）

Midwest Filtration展示新的过滤介质

Unipoly PSB是一种新型的点粘合纺熔聚酯

许多客户称Midwest Filtration为非织造布的药店。在展会中，参观者在一个地方就能找到许多类型的非织材料。这些产品在Cincinnati仓库以成卷形式进行储存，并准备在宽度范围上从1英寸—150英寸由12台再卷装和分切机中的一台在较短时间内转换成筒状。另外，模切机可以将它们切割成许多形状和大小。Midwest Filtration经验丰富的缝合技术可以将它们缝合，并热封到管子、袋子和袖子中。

在展会期间，Midwest Filtration推出了一种名为Unipoly PSB的新型非织造过滤介质，它是一种新型点粘合纺熔聚酯，基准重量从17—140克/平方米不等。其独特的低旦纤维创造了优良的均匀性。独特的制造工艺比类似的纺熔聚酯产生更好的强度性能（拉伸和顶破强度）。因此，许多应用可以考虑使用较低的基准重量来达到相同或更好的效果。

（资料来源:“www.nonwovens-industry.com”）

（<<< 上接39页）

Supreme公司总部位于孟买，并活跃于非织造布生产领域。投资的出售是Tenowo GmbH持续战略重点的结果，并且不会影响Hoftex集团股权的资产负债表。双方同意不披露购买价格，交易预计将在购买协议签订后的24个月内完成。

Tenowo于2006年与Supreme公司达成了协议，Supreme公司是家族企业，在印度经营几家非织造布公司。据报道，该协议涵盖了工业和内衬应用。

（资料来源:“www.convertingguide.com”）

读者查询表及广告商索引

READER ENQUIRY FORM/ ADVERTISERS' LIST

Return this form by fax to: **(+86-21- 64812993)**

1. Fill in name and address information

姓名 Name: 先生 Mr ☐ 女士 Mrs ☐ 小姐 Ms ☐

(please underline your last name 请注明姓氏)

职称
Title/Position

公司
Company

公司地址
Business Address

国家
Country

邮编
Postal code

电话
Tel no.

传真
Fax no.

手机
Mobile no.

电邮
Email

2. I would like to receive information from the following advertisers

☐ Changzhou Jinyi Machinery Co., Ltd. (Front Cover)
常州市锦益机械有限公司

☐ Changshu Feilong Nonwoven Machinery Co., Ltd. (Inside Front Cover, Inside Page 1)
常熟市飞龙无纺机械有限公司

☐ The 7th Filtration & Separation Asia (Front Inside Page 2)
第七届亚洲过滤与分离工业展览会

☐ The 18th Shanghai International Nonwovens Exhibition (SINCE) (Front Inside Page 3)
第十八届上海国际非织造材料展览会

☐ Shantou Sanfai Nonwoven Machinery Factory Co., Ltd. (Front Inside Page 4)
汕头三辉无纺机械厂有限公司

☐ JIANGHAI NON–WOVEN FABRIC Co., Ltd. (Front Inside Page 5)
江阴市江海非织造布有限公司

☐ Changshu Weicheng Nonwoven Equipment Co., Ltd. (Front Inside Page 6,7)
常熟市伟成非织造成套设备有限公司

☐ JIUJING NANHAI CHINA (Front Inside Page 8)
南海•九江

☐ Changzhou Jinyi Machinery Co., Ltd. (Inside Back Cover)
常州市锦益机械有限公司

☐ NDC Spray Coating System Fabricating Co., Ltd. (Back Cover)
泉州新日成热熔胶设备有限公司

COMPLIMENTARY SUBSCRIPTION FORM

订阅表

(Free to qualified members in Asia Only of the Nonwovens Industry. *All information must be properly TYPED IN)

姓名 Name: 先生 Mr ☐ 女士 Mrs ☐ 小姐 Ms ☐

(please underline your last name 请注明姓氏)

职称
Title/Position

公司
Company

公司地址
Business Address

国家
Country

邮编
Postal code

电话
Tel no.

传真
Fax no.

手机
Mobile no.

电邮
Email

A.Please indicate your job function(tick one box only)请选出您的职业 (单选)

1. [ ] Managing Director/Director/Owner/Partner 常务董事/董事/合伙人
2. [ ] Middle Management 中级管理
3. [ ] Sales/Marketing 销售/市场
4. [ ] Procurement/Purchasing 采购
5. [ ] Research/Development 研发
6. [ ] Others(please specify) 其他(请列明):

B.Please indicate the nature of your business (you many tick more than one box)请选出您的行业性质 (可多选)

1. [ ] Absorbent Product 吸收剂产品
2. [ ] Agriculture Fabric 农用织物
3. [ ] Apparel/Garments 服装
4. [ ] Automative Fabrics 汽车座垫面料
5. [ ] Medical 医疗
6. [ ] Carpeting 地毯
7. [ ] Filtration 过滤器材
8. [ ] Industrial/Technical Textiles 天然纺织品
9. [ ] Roofing 屋顶材料
10. [ ] Electronic 电子
11. [ ] Packaging&Stationary 包装和文具
12. [ ] Insulation & Home Construction 绝缘材料和家用建材
13. [ ] Others(please specify)其他(请列明):

C. Please indicate your Company* primary business activity (you may tick more than one box)请选出贵公司的性质 (可多选)

1. [ ] Manufacturing/Production 制造
2. [ ] Importing/Exporting 进/出口
3. [ ] Converting 改造
4. [ ] Distribution 批发
5. [ ] Consultancy/Research 顾问/研究
6. [ ] Others(please specify)其他(请列明):

Signature(required)签名 Date日期

To request a free subscription, fill out this form and fax to: +86 21 64812993 or mail to info@cnta.org

(The publisher reserves the right to determine qualification for a free subscription)