



Fameccanica is the worldwide market leader in the design and construction of machines for disposable hygienic products. Customers **strongly rely** on us because:

- we work on new projects every day in partnership with them on our 15 Lab test stands;
- we are always by their side thanks to **over 100 technicians** providing remote and on-site assistance;
- we take care of **our machines spread in 70 countries** thanks to our Customer Service expertise;
- we have **exceeded the contractual performance** of our Machines in more than **90% of installations**; Our culture is based on customer satisfaction, which is essential to **leave the mark** in our business together with our partners.



MORE THAN PRINTING





















tailored for extreme performance

Efficiency is our main criteria. Iridium is a range of flexographic printing presses designed for high quality printing on a wide range of substrates. Speed up to 800 m/min and dedicated automation to enable fast job changes offer relevant productivity combined with extreme flexibility.





GO GREEN

✓ ULTRA PERFORMING
 ✓ COST SAVING
 ✓ ENVIRONMENTAL FRIENDLY

Iridium uses exclusive technologies aimed at minimizing energy consumption and environmental impact.

Smart design exploiting hybrid applications allows production costs reduction and protects the environment.

The possibility of printing on ecological substrates such as paper, cardboard and Kraft with water-based inks leads us to a greener future.

GET IN TOUCH WITH THE STATE OF THE ART A.CELLI IRIDIUM OPEN HOUSE 2019

sign up for a live experience of flexo printing 8-11 October A.Celli Nonwovens Porcari (Lucca)

Feature Articles



26 Industrial Wipes Report

The shift from rags and towels to nonwoven wipers continues

30 Converter Round Up

An update on providers of finishing, packaging, slitting, winding and other services to the nonwovens industry

39 Focus on China

Companies continue to look to China for growth and nonwovens investment is following

Cover image courtesy of Suominen.



Verified Audit Circulation. Authorization to photocopy items in Nonwovens Industry for internal or personal use, or for the internal or personal use of specific clients, is granted by Rodman Media, provided a base fee of U.S.\$1 per page is paid directly to:

Copyright Clearance Center, 27 Congress St., Salem, MA 01970 U.S.A. Nonwovens Industry (ISSN 0163-4429) is published monthly on the 10th by Rodman Media Corp., 25 Philips Pkwy, Suite 200, Montvale, NJ 07645. USA; 201-825-2552; Fax: 201-391-1008; E-mail: nonwovens@rodmanmedia.com; Website: www.nonwovens-industry.com. Periodical Postage Paid at Montvale, NJ 07645 and additional mailing offices. Canada Post International Publications Mail Product (Canada Distribution) Mail Agreement No. 40028970. SUBSCRIPTION RATES for the United States: one year, \$75; two years, \$120. Canada and Mexico: one year, \$95; two years, \$160. GST required on Canadian orders (GST#131559148). Overseas Surface: one year, \$95; two years, \$160. Overseas Air Mail: one year, \$195. Single Issue: \$12. POSTMASTER: Send address change to Nonwovens

Missing issues: Claims for missing issues must be made within three months of the date of issue. Change of address should include both old and new address.

Also publishers of household and personal products industry, ink world, label & narrow web industry, coatings world, nutraceuticals world and medical products outsourcing. Printed in the U.S.A.

Industry, 25 Philips Pkwy, Suite 200, Montvale, NJ 07645.



union



nonwovens

Spun-melt Spunbond Carded thermobonded Apertured

Union spa Via Due Giugno, 80 13866 Masserano Italy tel. +39.015.95153 fax +39.015.927240 info@unionindustries.it





Table of Contents

Columns & Departments

8	EDITORS' PAGE What's Your Secret
10	INDEX TO COMPANIES A Listing Of Companies Mentioned In This Issue
12	TOP OF THE NEWS K-C Invests in Thinx
14	NONWOVENS NEWS Kimberly-Clark Invests in Costa Rica
22	DIAPER DUTY Deciphering the Nigerian Diaper Consumer
58	NEW PRODUCTS Clean Baby Care Line
59	SUPPLIER NEWS Consumers Seeking Transparency in Wipes
61	PEOPLE Wolfgang Laures Joins Glatfelter
62	PATENTS A look at recently issued patents
66	CALENDAR A rundown of industry events
70	COMPANY CAMEO A profile of Netkanika
56 67	WEB SHOWCASE CLASSIFIEDS

ADVERTISING INDEX

Editor
Karen McIntyre, kmcintyre@rodmanmedia.com

Associate Editor
Tara Olivo, tolivo@rodmanmedia.com

Editorial Director
Tom Branna, tbranna@rodmanmedia.com

Marketing Manager Paul Simansky, psimansky@rodmanmedia.com

> Art Department Tyler Natale tnatale@rodmanmedia.com

Contributing Editors Gabriele Bertocchi, Susan Stansbury, Ed Homonoff, Kin Ohmura

> Editorial Advisory Board Pricie Hannah, Phil Mango, Behram Pourdeyhimi, David Price, Susan Stansbury

President/Publisher Rodman J. Zilenziger, Jr., rod@rodmanmedia.com

Executive Vice President
Matthew Montgomery,
mmontgomery@rodmanmedia.com

Publisher
Matt Carey, mcarey@rodmanmedia.com

National Sales Managers Brian Barnes, bbarnes@rodmanmedia.com Kathleen Scully, kscully@rodmanmedia.com

Production Manager Cheryl Coviello, ccoviello@ rodmanmedia.com

Circulation Manager Rich DeVoto, rdevoto@rodmanmedia.com

Audience Development Manager Joe DiMaulo, jdimaulo@rodmanmedia.com

European Sales Representative Ria Van den Bogaert, BVBA Vandenbo Treft 27, 1853 Strombeek-bever, Belgium Tel: +32 2 569 8905; Fax: +32 2 569 8906 Mobile: +32 497 05 0754; ria@rodmanmedia.com

To renew/subscribe/update subscription information, please visit www.nonwovens-industry.com and click on subscription services.

Or contact: circulation@rodmanmedia.com,
201-825-2552 ext. 356; Fax: 201-391-1010.



A Rodman Media Publication 25 Philips Pkwy, Suite 200 Montvale, NJ 07645 USA Tel: 201-825-2552 | Fax: 201-391-1008 E-mail: nonwovens@rodmanmedia.com Website: www.nonwovens-industry.com



Envisioned by Shemesh. Engineered for Perfection.



HOWEVER YOU WANT YOUR PRODUCT PACKED



www.shemeshautomation.com

www.sawetwipes.com



What's Your Secret?

t is no secret that makers of diaper and other hygiene products are constantly seeking new customers. As birth rates drop and penetration levels rise, diaper manufacturers see fewer and fewer opportunities to increase sales of diapers in places like the U.S. or Western Europe and are always looking for new opportunities.

This is nothing new. Countries like Brazil, Russia and China have been under the spotlight for more than a decade as companies sought growth either through building new sites or acquiring existing businesses. And there have been many success stories as consumers around the world benefit from the hygienic benefits of absorbent products.

It seems these efforts are continuing gangbusters as companies look for new unchartered territory. In recent months, investment activity in places ranging from Central America to Africa to Southeast Asia has been stronger than we have seen in years. Kimberly-Clark—even as it streamlines plants globally—is investing \$40 million in production and supply at an existing site in Costa Rica. The company says these efforts will help it expand output of baby care and feminine hygiene products to countries throughout Central America, Panama, the Caribbean and Puerto Rico. This news came just months after the maker of Huggies diapers said it would invest in another developing country—KC announced plans to build a new factory in Nigeria featuring enhanced technology and capabilities in May.

Speaking of Africa, Chinese investors recently completed East Africa's largest diaper factory in Kenya, representing an investment of \$39 million. The new factory, constructed by Sunda, will make softcare diapers which have been exported from China to Kenya for 10 years. Sunda said that local production will allow it to make the diaper cheaply, which will mean lower prices and better affordability for the Kenyan consumer.

While affordability may be the key to winning over the Kenyan consumer, in other up and coming markets, notably China and other parts of Asia, sophistication seems to be the most important trait consumer value in in the diaper. Companies like Unicharm, Kimberly-Clark and Procter & Gamble are all applying their most sophisticated diaper technology into China and other parts of Asia (for more on China see page 39) to hopefully capture a piece of this growing market.

Considering the complexity of emerging markets, it is wise for companies to be exploring as many countries or regions as possible to prepare for challenges like political unrest, recession, trade issues and other unplanned factors that unexpectedly pop up to negatively impact sales.

As always, we appreciate your comments.

Konen Muhtgre

Karen McIntyre

Editor

kmcintyre@rodmanmedia.com





Edelmann Technology GmbH & Co. KG

A listing of companies in this issue

This index gives the starting page for a				
department or feature with a significant				
reference to a company. Subsidiaries				
are indexed under their own names.				
Companies found in listings, New Prod-				
ucts, Patent Review and show informa-				
tion are not included in this index				

Andritz14, Archer Daniels Midland Arno Friedrichs Hartmetall Athea Laboratories	14 59
Beckmann Converting Berk International26, BMP America Bostik	3(39 3(
Callaly	

Converted Products30
Domtar14
EFFE 430
Freudenberg12, 26, 39
Gelok International30 Glatfelter61
Hyperion59
Infiana14
Jacob Holm
Kao39 Kimberly-Clark12, 14, 39, 61

LG Chem
Mercantile Development, Inc26
National Wiper Alliance30 Netkanika
Owens Corning61
Phoenix Fabrikations30 Procter & Gamble14, 39
Reifenhäuser

Lenzing......59, 61

Saint-Gobain Sandler Sidwin Fabric	12 30
Southeast Nonwovens Sunda	
Suominen	26
Thinx	12
Triple W	14
Tsujitomi	14
Unicharm	39
U.S. Nonwovens	14
Vinda	14
Web-Pro	30
Yanpai	39



COTTON DOES more with less.

Being a responsible member of our global community means you give more than you take. Something cotton delivers on every day. By using only 3% of the world's agricultural land and water to produce nearly 30% of the world's food and fiber, cotton is part of the solution – both today's and tomorrow's.



K-C Invests in Thinx

ccording to a report in the Wall Street Journal, Kimberly-Clark is investing \$25 million in Thinx, a maker of reusable period underwear. The investment is expected to get the online brand into more mainstream retailers like Target and Walmart, and will also enable the startup to launch a lower-cost line of period underwear—with prices between \$15-\$19 per pair, versus current prices that are between \$32-\$39, the report says.

Thinx CEO Maria Molland told WSJ that getting the brand into big retailers will ensure consumers know it exists, which she said has been a major hurdle.

In an email to customers, Molland said that since Thinx's founding in 2014, it had raised less than \$2 million in total."We came up against the period taboo, strong incumbents, and the daunting task of convincing people with periods to change behavior that has been passed down for generations," she added.

In the past two years, Thinx's sales have nearly doubled to \$50 million.

In 2015, Thinx launched incontinence underwear Icon, now called Speax, and earlier this month, the company launched the more absorbent Thinx Super, which can serve as a complete replacement to tampons and pads. Thinx currently has over 60 boutique and retail partners globally including Nordstrom in the U.S., David Jones in Australia and Galleries Lafayette in France.

Sandler Starts Construction in Perry

Nonwoven manufacturer Sandler has broken ground on an expansion of its U.S. plant in Perry, GA. A new production line is scheduled to start production in fall 2020.

Plans include the construction of a 135,000-square-foot building that will house production and ware-house facilities. The new building will ultimately house a new manufacturing line for nonwovens targeting hygiene applications. The investment will create 70 new jobs in different departments at the Perry site.

Expanding its U.S. plant will enable Sandler to continue to grow in the local market. "Sandler nonwovens made in U.S. allow us to continuously develop and advance our longstanding business relationships to companies in the North American market. This investment is the next step towards establishing a competence center for nonwovens production here in Perry," says Tobias Baumgaertel, president of Sandler Nonwoven Corporation.

This investment is part of a larger corporate-wide investment announced during the company's 140th anniversary earlier this year. Over the next two years, Sandler plans to invest €90 million dollars at its sites in Germany and the U.S.

Freudenberg Makes Offer for Low & Bonar

Freudenberg has made an offer to acquire 100% of the shares in Low & Bonar, a globally active manufacturer of technical textiles. The step would allow Freudenberg to further expand its technical expertise in spunlaid nonwovens. In addition, the acquisition would open up new areas of activity to Freudenberg.

In the past financial year, Low & Bonar generated global sales of approximately 350 million British Pounds with approximately 1900 employees. The proposed acquisition is subject to, among other things, Low & Bonar shareholder approval and approval by the antitrust authorities.

"As a spunlaid production pioneer, Freudenberg has offered its customers solutions based on a one-step production process since 1968. Low & Bonar's two-step process solution will give us greater flexibility and allow us to more individually tailor our solutions to customer requirements," explains Dr. Frank Heislitz, Freudenberg Performance Materials CEO.

In addition, Freudenberg would be able to offer its customers a broader product range, especially in existing applications for the construction, building interiors, home textiles and automotive sectors.

"We will also open up new areas of activity with new applications for Freudenberg thanks to Low & Bonar's adjacent technologies," says Heislitz. ■



A new Mark of Performance



PAKSIS 1-10 is an integrated Stacking & Bagging machine at high speed and high flexibility, for baby diapers, training pants and incontinence products. A new Mark of Performance by Fameccanica and Optima, going fast with breakthrough packaging systems.







Kimberly-Clark Invests in Costa Rica

imberly-Clark will reportedly invest \$40 million in its production and supply center in Costa Rica. The investment will allow the company to expand production of baby care and feminine hygiene items and is part of a plan to increase production capacity for domestic consumption and exports. K-C supplies Costa Rica with more than three million diapers and 2.5 million feminine hygiene products daily and also makes products that are exported to Central America, Panama, the Caribbean and Puerto Rico.

K-C has been present in Costa Rica for 22 years. In 2018, it invested more than \$5.2 million to open a 5,100-square-meter warehouse in Cartago. It currently employs 1500 workers in production plants, distribution centers and national and regional headquarters.

Private Equity Firm Buys Stake in U.S. Nonwovens

Wind Point Partners, a Chicago, IL-based private equity firm, has acquired a controlling interest in U.S. Nonwovens (USN), Inc. Based in Brentwood, NY, USN is one of North America's largest manufacturers of personal care, over-the-counter, cosmetic, laundry and household cleaning products. USN supplies a broad portfolio of products for personal and home care applications, including disinfectant, cosmetic and personal cleansing wipes, as well as laundry detergent, bleach and fabric softeners. The company operates with nearly 1200 employees out of 13 North American locations, including eight manufacturing sites and five self-managed warehouses.

USN executives and co-founders Shervin Mehdizadeh, Rody Mehdizadeh and Sam Mehdizadeh are retaining significant equity in the company and will remain involved through a board seat, as well as advisory roles. The Mehdizadehs will continue to leverage their experience with M&A in assisting with the develop-

ment and execution of USN's acquisition strategy, which will focus on acquiring companies that provide complementary products, manufacturing capabilities and brands.

Wind Point has partnered with Matthew Stillings as CEO and Chris Sliva as board chair. Stillings was most recently president and group executive leading the \$820 million Water Management Division at Rexnord. Prior to Rexnord, he was a senior executive at IDEX Corporation, where he most recently led the \$650 million Pumps & Valves division. Sliva was most recently CEO and president of AdvancePierre Foods, a \$1.6 billion business formerly owned by Oak Tree Capital. His prior roles include president and COO at Treehouse Foods, a \$5 billion publicly traded private label food manufacturer, and president and CCO/COO of Dean Foods.

Wind Point's investment in USN represents yet another partnership for the firm with an entrepreneur-owned business, a focus area of Wind Point's investment strategy for decades. Wind Point will seek to further grow USN both organically and through add-on acquisitions, leveraging the firm's experience in the consumer products industry. Select current and prior Wind Point investments in consumer products include Voyant Beauty, Hearthside Food Solutions, Shearer's Snacks, Gehl Foods, and Petmate.

New Diaper Plant Near Nairobi

Chinese investors have established East Africa's largest diaper factory in Kenya. Representing an investment of about \$39 million, Sunda Kenya Industrial Company was built on a 35-acre tract of land 30 kilometers southwest of Nairobi. It has an annual production between 350 and 450 million diapers per year, according to executives.

The new factory will make softcare diapers, which have been exported from China to Kenya for 10 years. They have

emerged as a trendsetter in the Kenyan diaper market in terms of design.

By establishing local production, Sunda will be able to provide the diaper at a lower cost. The introduction of softcare has already driven Kenyan diaper prices down by 20-30% during the past 10 years. The new factory will also provide permanent employment to 300 local workers.

Total demand for diapers in Kenya is estimated at 800 million pieces per year.

Sunda opened a diaper factory in Ghana last year.

Vinda Opens Regional Hub

The Vinda Group Southeast Asia unit of Hong Kong-listed Vinda International officially launched the construction of its regional headquarters with a groundbreaking ceremony.

Located on a 27-acre site, the state-of-the-art regional headquarters will comprise a double-story manufacturing plant with raw material warehouse, a finished goods warehouse, the Vinda Innovation Centre and a six-story administration block to be implemented in phases, in line with Vinda's five-year plan. The investment of more than half a billion ringgit over the next five years in multiple projects to set up the Vinda regional hub represents Vinda's commitment to Malaysia and to the state of Selangor.

Vinda SEA president Su Ting Nee said at the groundbreaking ceremony that the regional headquarters will not only centralize expertise and high-value activities in Malaysia, but also make the group globally competitive through the use of the latest technologies and processes with automation used where possible. Vinda SEA also anticipates that these changes will increase capacity by more than 20% when the facilities are fully in operation.

Examples of the automation that are planned include automated storage and retrieval system, automatic raw material supply to production lines, pre-selection

www.aplix.com





- A TECHNOLOGY LEADER
- A CULTURE OF INNOVATION
- A COMPLETE PRODUCT LINE
- A GLOBAL PRODUCER
- A RELIABLE PARTNER



TexLoop | Knit loop frontal tanes



SoftFit | Stretch laminates









of finished goods to be loaded and a fully automated first-in first-out system. The automation and integration will also help to reduce the carbon footprint, which is in keeping with the company's sustainability policy.

She said a combination of factors made Malaysia a natural choice as Vinda's regional hub. "Malaysia offers stability, first-class infrastructure and multilingual and multicultural talents that are crucial for business sustainability. Coupled with our strong presence in Malaysia, it was an obvious decision for Vinda to set up our regional hub and Innovation Centre here to support our continuous growth expansion in Southeast Asia," Su adds.

The regional hub will develop, manufacture and/or market four different product categories, namely, baby care, incontinence care, feminine care and tissue products. Drypers, Tena and Libresse are currently the market leaders, while Vinda Deluxe is seeing strong growth momentum in the markets since the 2017 launch. This facility will serve mainly the Southeast Asian market, and support sales to more than 25 countries, with Malaysia being the strongest market.

Saint-Gobain to Install Wetlaid Line

Andritz has received an order from Saint-Gobain Adfors, Czech Republic, for a wetlaid line for its Litomyšl facility. Start-up of the line, which will make glass fiber mats, is scheduled for mid-2021.

The Andritz neXline wetlaid line for glass fibers is designed for high production capacities and includes units for stock preparation, wetlaid forming and binder application. With this line, Saint-Gobain will produce high-quality glass fiber mats for several markets. The systems' manifold, diffuser and former equipment ensure highly uniform fiber distribution with optimal structures during the laying process. This results in high-quality glass fiber end products.

For Saint-Gobain Adfors, this is the second production line for glass fiber mats at the Litomyšl facility. The line will not only increase the capacity but will also support the company's development for

more sophisticated and qualitative applications and organic growth.

"We look forward to leveraging our long-standing experience in glass fiber mat production to increase our presence in new segments of the glass mat market with the new neXline wetlaid line from Andritz," says Jérémy Poiret, general manager, Saint-Gobain Adfors Industrial Fabrics Europe.

Saint-Gobain Adfors offers technical textiles to reinforce and surface products for both construction materials and industrial applications. They provide comfort, performance and safety, while addressing the challenges of sustainable construction.

Japanese Nonwovens Producer Seeks Growth

Tsujitomi, a Japanese nonwovens producer, has a plan to increase production capacity by adding two needlepunch nonwovens lines. The first line will be added at the end of 2020 and the second will be added in 2022. Line number one will be 4.5 meters wide while the second will make laminate structures that are four meters wide.

The capacity of the new investments is two times as large as Tsujitomi's existing facilities.

Loparex Buys Infiana

Loparex has completed its acquisition of Infiana, combining two major suppliers to the hygiene market. Infiana's know-how and international expertise in highly engineered films and Loparex's global leadership in specialty release liners complement each other well, according to the companies.

"I am looking forward, with excitement, to this great opportunity," says Simon Medley, Loparex CEO. "As we move into integration, we will seek to leverage the strengths of Infiana and Loparex while identifying synergies and growth opportunities, helping us to become the universal release liner solutions provider of choice."

The combination of the two companies will build stronger release liner capabilities and strengthen their global industry-leading position, which will enable a stronger support to their customers' growth plans. Loparex has manufacturing operations in North America, Europe and Asia while Infiana has sites in Germany and the U.S.

"This merger is something the industry has been expecting and waiting for a long time," says Peter Wabsner, CEO of Infiana. "The businesses complement each other very well in terms of portfolio and geography. Joining forces will create a true global company with a complete offering for our market and customer needs."

Rockline Honored for Safety

The Arkansas Department of Labor has recognized Rockline Industries' Springdale, AR, campus with an award for exceptional safety. Recently, Rockline Industries – Northwest Arkansas (NWA) achieved 11 million safe work hours without a lost time accident (LTA). This impressive milestone puts Rockline Industries NWA in elite company, as this milestone has only been achieved by a handful of companies.

"Our associates go that extra mile every day to prevent safety incidents. They look out for themselves and their fellow associates, in order to keep their department and our company on track to meet our safety goal," says Mark Fougerousse, environmental health & safety manager of Rockline NWA. "Their commitment to workplace safety is the reason we have been able to reach this milestone and we truly appreciate the dedication of every individual to make our work environment as safe as possible."

Rockline associates are trained to help prevent possible safety risks by continuously being on the lookout for potential safety hazards no matter how small. When such risks are observed, the associates report them to appropriate personnel who can get the issue corrected.

"We have an incredible group of dedicated employees who believe that reaching the goal of zero injuries is possible. Our employees are genuinely concerned for the safety and well being of each other," says Joel Slank, general manager of the Springdale facility. "Receiving this safety award is very nice, but what is most satisfying is the knowledge that our employees





Processing DISPERSIBLE wet wipes

Precise substrate tension control throughout the manufacturing process
Proprietary, unique unwinders for baby, wet toilet and cosmetic wipes
Lap splices of rolls up to 170 m/min without operator intervention
Handling DISPERSIBLES as any other spunlace substrate: only by Teknoweb

Shaping Innovation



Teknoweb Converting S.r.l. via dei Salici n.7 - 26020 Palazzo Pignano Cremona (Italy) - ph. +39 0373 951311 - fax + 39 0373 983059 sales@teknowebconverting.com

Teknoweb North America. 506-B Plantation Park Dr. Loganville, GA 30052 - United States - ph. +1 770 466 1890 - fax +1 770 466 1891 strive to ensure that our company is a safe place to work."

The Safe Work Program began in 1976 and is part of The Arkansas Department of Labor's Occupational Safety and Health Division educational effort to encourage workplace safety by honoring companies whose employees have accumulated a significant number of work hours without a lost day away from work due to a work-related injury or illness.

Sustainable Technology for SAP Under Development

Archer Daniels Midland Company (ADM) and LG Chem announced a joint development agreement to create biobased acrylic acid, a foundational element required in the manufacture of superabsorbent polymers (SAP) used in a range of hygiene products, including diapers.

Under the terms of this agreement, ADM and LG Chem, one of the world's leading manufacturers of acrylic acid, will work jointly towards economically viable commercial production of a 100% biobased acrylic acid using ingredients from ADM corn processing. Although there is growing industry demand for products developed from renewable materials, acrylic acid is currently produced almost exclusively from petrochemicals. To support production, LG Chem plans to review the construction of a bio-SAP production plant in North America, and to explore additional bio plastic business opportunities.

"The acrylic acid project is another effort from ADM to create new sustainable materials from renewable resources, and demonstrates our strong commitment to support customer demand through innovation," says ADM senior vice president and chief technology officer Dr. Todd Werpy. "By tackling this challenge with LG Chem, we can leverage the strengths and expertise of both companies to bring a cost-effective, sustainable solution to our customers."

"As customers focus more and more on sustainable alternatives, ADM is looking to continually push the envelope and find new ways to diversify our product mix," says Chris Cuddy, president, Carbohydrate Solutions for ADM. "We currently produce about 30 different products from a kernel of corn, and we're eager to explore the possibilities provided through biobased acrylic acid."

Domtar Makes Donation to Diaper Bank

Employees from Domtar's Personal Care division, headquartered in Raleigh, NC, hosted a volunteer effort to package over 20,000 diapers to help support underserved families in the greater Durham area. Over the last two years, Domtar has donated more than 3.3 million diapers to the Diaper Bank of North Carolina.

Domtar makes a wide variety of everyday products from sustainable wood fiber, and is one of the world's largest producers of a complete line of absorbent hygiene solutions and an innovator in absorbent technology.

"With our Personal Care division based in Raleigh, Domtar is proud to call the Triangle our home," says Brad Goodwin, president of global commercial markets. "We are committed to championing health, dignity and comfort in our local communities because we believe everyone deserves personal care. That's why we organize this annual employee volunteer event at the Diaper Bank of North Carolina, and it's why we've donated 3.3 million diapers to the local organization over the last two years."

The Diaper Bank of North Carolina (DBNC) works to ensure that families receive hygiene products they need by working with established family-support organizations to distribute diapers to low-income families. By leveraging these existing networks, DBNC is able to efficiently give diapers to those in greatest need in the community.

"Our goal at the Diaper Bank of North Carolina is to ensure that every family in the community has access to diapers when they need them," says Michelle Old, founder of the Diaper Bank of North Carolina. "Because of Domtar's generosity and commitment, we are able to work with our community partners to identify gaps in the community and come up with a plan to fill those gaps."

Domtar's diaper donations are driven by the company's Comfort and Care Program that helps alleviate the financial and emotional stress for families in need by donating diapers to charitable organizations, such as the DBNC.

Callaly Named One of U.K.'s Leading DTC Companies

Callaly, the manufacturer of innovative femcare products including the awardwinning Tampliner, has been named one of the U.K.'s 50 leading direct-to-consumer companies in IAB's U.K. report, Born Online. The report, conducted with research and strategy consultancy MTM, explores the rise of digital-born brands that are reshaping the sector with a datadriven, agile approach to brand building. It identifies 50 of the U.K.'s leading DTC brands - including the likes of Glossier, Huel, allbirds and Peloton – and analyzes both their founders and customers in order to understand how they are pioneering a new era of retail. For their research, MTM surveyed thousands of people aged 16 and older who are representative of the U.K. online population.

The report shows that DTC customers such as Callaly have distinctive traits and values that set them apart from the average U.K. consumer.

"DTC businesses are agile in response to consumer feedback and utilize analytics to forge authentic relationships with customers. While brand growth is a key goal, protecting these unique characteristics is also a priority. Working with partners that are open to a test and learn approach, support data-driven marketing and help to amplify our customer-centric ethos is crucial," says Kate Huang, chief marketing officer at Callaly.

Invented by Alex Hooi, a veteran gynecologist, the Callaly Tampliner addresses a need in feminine hygiene products. It is available on a monthly subscription that can be personalized to suit each individual's cycle. The brand has its sights set on further product innovation in the future, with a focus on the research and develop-





AI 300-500PPM

Adult Pants Machine +NBZ-40 Packing Machine



BT 600-1000PPM

Baby Pull-Up Machine +NBZ-60 Packing Machine



AE 800-2000PPM

Sanitary Napkin Machine +WBZ-90 Packing Machine

Heng Chang Machinery Co., Ltd.

HengChang Turkey
Telephone: (90)(264)(2914062
Contact Murat Komureu
Mobile: (90)(532)6891270
Email: mkomureug/dispopak.com

HengChang Latin America
Contact: Xiao Yuan

Email: xiaoyuan@aqhch.com.cn luis.silva@aqhch.com.cn



Telephone: (86)(556)5325888

Fax: (86)(556)5357893

Email: aqhch@aqhch.com.cn

Web: www.aqhch.com.cn



World advanced level created from China

ment of new products. One such product secured Callaly's fourth patent family grant in 2019.

Triple W Launches Wearable Device Accessory

Triple W, an innovator of connected health devices, introduced the D-pad accessory for use with DFree, the first wearable device for urinary incontinence. DFree is a non-invasive device that uses ultrasound technology to monitor bladder fullness and notifies users on their smartphone or tablet when it's time to go to the bathroom via the DFree companion app. D-pad helps to position the DFree ultrasound sensor in the correct place on the abdomen with a built-in bracket designed to hold the sensor over the bladder. Now DFree customers can choose either the Dpad or medical tape to adhere the ultrasound sensor to their skin.

DFree helps to prevent accidental uri-

nary leaks. Seniors, people with disabilities and others who need to manage a loss of bladder control now have an alternative to disposable diapers or pads and medications with the DFree health wearable device. DFree stands for "diaper-free." DFree is designed not only to help people with urinary incontinence improve their quality of life and enable independence, but also to help reduce the burden for the caregivers.

"We wanted to make it easier for our customers to position and secure the DFree sensor," says Atsushi Nakanishi, founder and CEO for Triple W. "With the D-pad, you no longer need to worry whether the sensor is placed correctly to accurately monitor your bladder."

D-pad is available to purchase in the U.S. from the DFree website for \$39.99. Each D-pad package includes a set of five D-pad sheets. Each sheet is reusable up to five times and gentle on the skin. D-pad

is compatible with the DFree-U1P device. The DFree device is available for purchase in the U.S. from the DFree website, Amazon and authorized retailers for \$399.99 (MSRP). DFree is also available to rent-to-own from the DFree website for \$40 per month with a minimum rental term of 30 days. The DFree companion app may be downloaded for free from the App Store and Google Play.

Tampax Radiant Seeks to Drop Taboos

Tampax Radiant has launched #LiveRadiant – a campaign curated for Black women by Black women – and tapped menstrual advocate CeCe Jones-Davis and OB-GYN Dr. Kiarra King to aid in reversing cultural taboos and reinforce the importance of having the right information while encouraging the community to have open and honest dialogue about periods.

Even in 2019, period myths, mis-educa-



tion and stigma are limiting Black women from receiving accurate information about their bodies, and their periods,. In fact, a new study by Tampax Radiant found 25% of African American women who prefer pads said they prefer them because they were not taught how to use tampons. Moreover, two in five African American women wish they started using tampons sooner in life and 55% said additional information on how to properly use a tampon would be useful.

"Unsafe, uncomfortable, only for sexually active women. After talking with women in the Black community across the country, we saw these are some of the common myths associated with tampons," says Melissa Suk, Tampax associate brand director, at Procter & Gamble. "We found that 42% of Black women want to learn more about their periods from African American media and brands. We knew we needed to drive change, but in the right

way - with the support of and knowledge from Black women themselves."

Dr. King, OB-GYN, adds: "So many women are scared to speak up about their periods, especially if they've been managing menstrual related problems for years. It is shocking to see the number of women who come to my practice and either don't know how to use tampons, or aren't considering using tampons because of incorrect information or myths they've heard. I'm a huge proponent of educating and empowering women so they know their options."

Smithers Unifies Brands

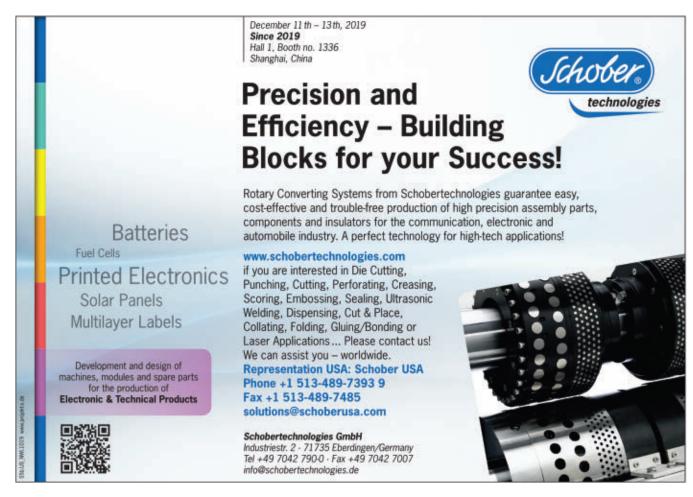
Smithers, a provider of testing, consulting, information and compliance services, announced the launch of a single brand identity, refreshed logo, new tagline, and a streamlined web presence at www.smithers.com.

Smithers commemorates its nearly 100-

year commitment to helping its clients bring great products to market with a new tagline: Innovate with Confidence.

"By uniting all our member companies under a single brand, we are working together to connect our clients with Smithers experts," says Michael Hochschwender, CEO and president, Smithers. "The power of our connected enterprise supports our clients throughout their product development process."

In striving to streamline the client experience and strengthen its global brand presence, Smithers is bidding farewell to its legacy brands (Smithers Apex, Smithers Avanza, Smithers Pira, Smithers Quality Assessments, Smithers Rapra, and Smithers Viscient). This shift to a single brand will make it easier for clients in any industry worldwide to discover the full breadth of services Smithers has to offer throughout the entire product development process.



Deciphering the Nigerian Diaper Consumer

Looking at the consumer's social influences, social pressures and habits that shape the consumer's brand and purchase decisions

By Raymond Chimhandamba, Handas Consulting (Africa Market Specialist), Johannesburg, South Africa

The insights here have been gathered over the years from direct consumer interactions, conversations and interviews with distributors and market observations. Nigeria is Africa's biggest market and probably one of the most complicated to operate in, offers some an interesting perspective on Africa's consumer market.

Tasked with finding a distributor in Nigeria, one of the potential distribution partners that I looked at was Great Brands, whose understanding of the diaper category was both deep and wide. They had been Kimberly-Clark's distributor in Nigeria for a number of years and I found them to have deep understanding of what drives the Nigerian consumer, from the social pressures to the consumer habits and the purchase drivers. A lot of what they shared in those years forms part of the insights that I share here.

Diapers as a category generally has a high consumer awareness in Nigeria and are widely used by the middle and upper consumer classes. The disposable diaper's benefits versus cloth (or nothing) are quite clear to the consumer. The mother bears the overall responsibility for the tidiness of the home and looking after the children. If your children look clean and presentable, it is perceived as evidence of good motherhood.

The biggest hurdle in achieving better growth for the diaper category is price. As a result, quality mid-priced disposable diapers as well as smaller packs are attractive to the middle and lower income earners. However, a fair understanding of specific product benefits among mid C and D groups (which may include stretching ears, breathable backsheets, velcro instead of tape, etc.), affordability and brand reputation are key purchase drivers.

Using a mix of disposable and cloth diapers is not uncommon, especially when economic times are tough. When times are tough, the consumers may make adjustments by having the baby wear cloth diapers during the day—when it is easy to see if the child is ready for a change or not. Then the child will wear disposable diapers at night when the mother and/or caregiver might be asleep and it is critical to ensure that the child remains dry all night. Alternatively, when no one else is around, the child may wear cloth diapers to save on diapers, but when there are visitors, the child will not only wear disposable diapers, usu-

ally a brand that is fitting for the mother/and or father's social status. The social pressures of being perceived as a father or mother or parents who provide the best for their children also come into play.

The Family Unit and Other Information Sources

The family is the main unit of Nigerian society, and marriage is one of the most important social customs. Collectivism is an important part of family life, sometimes personal needs are omitted due to social obligations and expectations. Large families of four to six children are quite common in Nigeria and the majority of the population cherishes family, including the extended family of aunts and uncles, nephews and nieces, as part of their culture. Family gatherings and contact with family are important. As a result, word of mouth from an older aunt regarding what brand to use on a child can go a long way.

Managing the household, keeping it tidy, doing the household chores, cooking, laundering, shopping, etc., is a mother's overall role in the home. It will reflect positively on the mother if children look presentable whenever they appear in public. For the working mother, all the above are in addition to their day job, so they have to better organize their time to fit their obligations and responsibilities. The mother, even though she may have help, assumes full responsibility for the well-being of her child, the health, nutrition, cleanliness and hygiene, education and security.

Matrons and midwives at hospitals and health centers, especially in the lower socio-economic classes, and pediatricians in the higher economic classes, are important and trustworthy sources of information especially when it comes to serious matters. Many mothers tend to go to prenatal classes to learn more about the best ways to care for their children. Possible opportunities for a diaper brand manufacturer to promote its products include holding seminars on the importance of hygiene, inviting mothers, fathers, etc.

Also, with internet penetration in Nigeria increasing, webinars, or the formation of social groups, could help drive growth. Online sales via Jumia have boomed in Nigeria in the last few years. Perhaps that on its own is a good cue about the online possibilities for diaper brands to reach out to mothers via so-



wipe production needs.

- Handle the most delicate flushable and biodegradable materials with peace of mind. No compromise on efficiency or speed, no hassle!
- Minimize format change-over time for daily operations. Reduced human intervention, increased machine uptime!
- Improve operational excellence and have the control at your fingertips. Access fully traceable real time reports and production statistics to help create your in house MES data.





cial media in Nigeria. Key African markets with increasing internet penetration in sub-Saharan Africa include Nigeria, Kenya and South Africa. South African brands have done well in this space and more mommy bloggers are entering the space to create platforms for mothers to share and get information and advice about looking after their babies and giving themselves the best possible chance to be great mothers.

Mothers are generally concerned about the hygiene and health of their babies and to some extent feel pressured by family and society to have a healthy baby. A chubby baby is generally a sign of good health in African custom, and physical appearance in general is another great indicator of whether the baby is healthy and happy. A clean healthy baby reflects on the reputation of the mother and her wider family.

Consumer Insights

Smaller pack sizes offer the advantage of smaller cash outlays, thereby promoting higher usage and they are also a key factor in purchase decisions, especially among the lower social economic class consumers. Disposable diapers, especially the popular brands, are a visual indication of good hygiene, which is an important aspect of good motherhood. As already mentioned, recommendations from family members and friends are among some of the most important drivers in brand selection.

Other parties such as health professionals hold some influence and are also important in promoting disposable diaper usage and can influence brand selection. Therefore having your rep calling on these health professionals may pay off for a brand owner. For lower socio-economic classes, there is a close association between disposable diapers and affluence or at the very least some value of aspirational achievement.

The majority of diaper purchases in Nigeria are smaller packs of three to 11 diapers. Economy and larger packs are bought by the higher socio-economic classes. Lower socio-economic classes

do their grocery shopping on an ad-hoc basis, almost daily or every other day, governed by the level of their disposable income at any one time.

As the socio-economic class gets higher, one gets more planned schedules for grocery shopping and these are the occasions when they do their shopping for disposable diapers.

In the case of the neighborhood grocery shop, open markets or the supermarket, all the places that a mother visits to buy her disposable diapers, the shopkeeper has no influence at all on the choice of the disposable diaper purchased.

The neighborhood grocery shop is preferred for its convenience and here you can build a good relationship with the shopkeeper so that one is able to return any products if necessary, which is not a common practice in the market. In this type of shop the price is fixed and you cannot negotiate like you would at the market and the products are generally more trusted.

Buying disposable diapers from the open market, or the market as it is usually called, happens because the mother is already there to buy household items. One of the advantages of the market is that the prices are generally discounted below the price at neighborhood grocery or the supermarket. In some cases the mother only buys from a specific salesperson at the market that she knows and trusts and not just anyone. Not all products at the market are authentic.

The supermarket in the mall environment is by far the most trustworthy shopping environment. Prices are fixed and the choice and variety is wider. If you have children with you, it is easiest to shop here as well. This requires a special trip because normally the mall is usually a fair distance away. Lower socioeconomic classes make frequent weekly purchases while higher SEC tend to buy in bulk packs, the key driver of this habit being the different levels of disposable income.

Open markets offer discounts but they are generally far from home and less trusted. Fake products also exist in this

channel, posing a fair amount of risk. For the lower SEC, the neighborhood grocery store is the most important retail channel due to its proximity to home and the relationship with the shopkeeper. However, it is also possible that the trip to the mall, most likely at the end of the month, may mean that the mother buys the jumbo pack/economy pack, and reverts back to the weekly or daily purchases when this runs out. Understanding this level of detail and habits may also help a diaper brand owner to time their promotions to monthly at the end of the month in the mall, and perhaps end of the week at the neighborhood shop if you plan to drive volume.

The Nigerian Consumer

According to a 2017 Nielsen report, "Nigerian consumers have remained extremely optimistic in their outlook (scores above 100 indicate a positive outlook), despite the broader environmental pressures trickling through into their everyday lives. While the majority of consumers are hopeful for an improvement in their circumstances, they have had to adapt their spending patterns."

It is during these times that one can expect the consumer to use cheaper options when there are no visitors, and the better brand when the visitors are present or when attending family gatherings, when social expectations must be met.

According to Nielsen's "Navigating the new normal in Nigeria" report, consumers will continue to adopt different, category-specific tactics from shopping less frequently to reducing quantities (smaller packs or larger bulk packs if incomes permit), switching to cheaper brands or looking for better deals. Manufacturers and retailers will need to understand the various approaches to match the consumers' needs with viable offerings."

The growth of social media and online shopping, both of which are driven by internet penetration, offer an interesting development in the future of how diaper brands in Nigeria will engage the consumer and fight for their space in the consumer's mind.

















广州市兴世机械制造有限公司

GUANGZHOU XINGSHI EQUIPMENT CO.,LTD.

ADD: No.11 Zhonghan Road, Zhongcun, Panyu District, Guangzhou, China

TEL: +8620-8451 5266 FAX: +8620-8477 6421

EMAIL: xingshi@xingshi.com.cn WEBSITE:www.xingshi.com.cn



onwovens manufacturers are optimistic about growth for industrial wipes substrates. Nonwoven-based wipers continue to displace reusable and launderable rags in a range of industries including industrial facilities and manufacturing plants, as well as food service facilities, healthcare facilities and lodging establishments.

The increasing adoption of nonwoven wipers can be credited for several reasons. Because they can be engineered to incorporate specific features, nonwovens can outperform textile wipers and rags. For instance, some can absorb more liquid, more quickly than rags, while also leaving less lint behind. Nonwovens can also provide consistency in both size and performance, while shop rags can vary in size and can contain contaminants such as heavy metal residue from other workplaces, even after being laundered.

For industrial applications, Berry Global is seeing a shift from rags or towels to a nonwoven wiper. "By using a nonwoven wipe, the user is guaranteed a fresh and clean towel every time, eliminating the need to dig through a pile of rags to find one rag suitable for the task at hand," says Julianne Hawk, product line management, Packaged Goods, HH&S Division of Berry Global. "Because of a nonwoven's durability and increased towel longevity, less waste ends up in landfills."

Wipes made from nonwovens can be disposed of either right away after single use to help minimize or even eliminate risk for cross-contaminates—to clean properly—or they can be used more than a few times in a more robust environment such as in automotives, says Johanna Sirén, category manager, Professional at nonwovens producer Suominen. "With nonwovens you will also have every time a brand new clean wipe with the same properties as the 'last time,' as the repeated washing will not destroy the structure of the wipe by having holes or losing fibers to create the difficult lint," she explains.

By The Numbers

According to a new report from market tracker Smithers, The Future of Industrial Nonwovens to 2022, global sales of non-wovens for industrial applications in 2017 reached \$20.9 billion, and is set to grow annually by 7%, across 2017-2022 reaching a value \$29.2 billion in 2022 due to increasing affluence in global populations.

The global consumption of nonwovens is 68.9 billion square meters or 4.7 million tons. According to the report, industrial nonwovens are expected to use 98.7 billion square meters in 2022, with projected growth (2017–22) of 7.5%. By 2022, tonnage consumed will increase to 6.8 million tons, with projected growth (2017–22) of 7.5%.

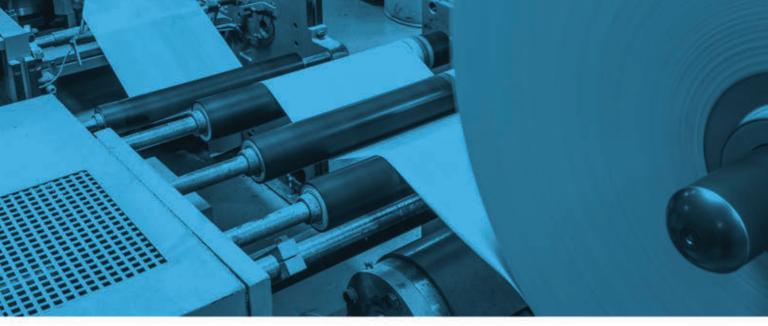
The Smithers data show that industrial wipes, which make up a small portion of industrial nonwovens, reached a consumption of more than 200,000 tons in 2017 and is expected to reach 400,000 tons by 2022, with a CAGR of 7% across the five-year period. The value of industrial wipes was \$1.2 million in 2017 and is expected to grow at a rate of 7% through 2022, reaching a value of \$1.7 million, the report says.

Improvements Abound

Berry Global continues to target the industrial wipes market with its proprietary Spinlace technology. Last year the company revealed it would add 17,000 metric tons of capacity at its existing facility in Mooresville, NC, to meet demand in a range of markets including food service and industrial wipes.

According to Hawk, the new Spinlace asset is expected to be commercial by the end of this year.

Both Berry's Spinlace and Apex technologies are used in its branded Durawipe products. "Spinlace fabric makes our Durawipe towels 30% stronger, 20% more absorbent, and 50%





Nonwoven Converting Services for Wholesale and Retail Markets

At National Wiper Alliance we offer you the capability, service and quality you deserve, with customized solutions for your business. We partner with you to streamline your process so you have a higher quality, more profitable product.

CAPABILITIES

- · Sheeting / Blankets
- Floor Pads
- Printing
- · Folding
- · Inner Folding
- Slitting
- Rewinding
- Perforated Rolls
- Center Pull Rolls

SERVICES

- · Material Sourcing
- Cost Analysis
- · Custom + Toll Converting
- Private Labeling
- · Warehousing + Distribution
- Small Trial Runs
- · Product Development
- Confidential Consultation
- Customer Branding

MAIN CAMPUS

500,00 sq FT

SATELLITE LOCATION

150,000 sq FT

35+ CONVERTING LINES

Visit our newly launched interactive and customer friendly website: www. nationalwiper.com



Contact Us: 828-236-1300

sales@nationalwiper.com

875 Warren Wilson Rd. Swannanoa, NC 28778







Berry Global's proprietary Spinlace and Apex technologies are used in its branded Durawipe products.

more abrasion-resistant than other industrial wipers on the market. Our Apex technology allows unique imaging to be added to the wipes, which not only increases the aesthetics of a wipe but also provides a unique texture that can be used for scrubbing purposes. Durawipe products are ideal for general purpose industrial markets, because of their dual purpose actions-highly absorbent and durable," she explains.

Meanwhile, Berry's industrial wipe brand Chicopee serves many markets including building care, food service, general industrial, auto, aero and graphics. "Nonwovens provide the ability to engineer fabric to suit specific tasks," Hawk says. "For example, our Chix Ultra foodservice wipes, are engineered to work with sanitizers rather than against them. Typical cotton towels or rags bind to sanitizers, thus reducing the amount of sanitizer transferred to a surface. Chix Ultra prevents this binding from happening."

Suominen also offers a range of nonwovens for industrial wipes for different cleaning environments. Its Genesis Pro and SPC Pro products are excellent when the end-use requires low linting, superior strength and absorption while offering the possibility for differentiation and improved cleaning efficiency through embossed patterns. "These attributes are especially welcome for critical cleaning but also for more heavy-duty cleaning environments such as automotive," Sirén says.

The Finnish producer also develops nonwovens with carded fibers and pulp for high absorbency, which provides an option for a sustainable natural fiber product. Suominen's assistant category manager, Professional, Olga Schlossberg says sustainable products for professional use will be one of the focus areas in the upcoming years. "We have a range of solutions to help our partners to address this trend," she adds.

Another focus area for Suominen is its food service wipes portfolio. The company offers products that are food contact safe (FCC Food Contact Clearance), as well as solvent and high temperature resistant. Fully compostable wipes were also recently developed to answer to the growing need for easier disposal in the restaurant business where the other components like cutlery, plates and cups are already compostable.

"We can already see the rising interest towards sustainability in the food service side where it's usual to have most of the created waste recycled through compost so it's just natural to dispose the wipes similarly," Sirén notes.

Meanwhile, Freudenberg Performance Materials continues to target the industrial wipes category with products based on its Evolon technology. The substrate is made from microfilaments that are 100 times thinner than a human hair. "The fineness and density of microfilaments are key technical parameters which explain the outstanding, lint-free, cleaning performance provided by Evolon wipes—actually one of the best products in its category," claims Jean-François Kerhault, business segment manager Evolon at Freudenberg Performance Materials.

Evolon's heavyweight wipes range can withstand hundreds of wash cycles, while its semi-disposable lightweight formats can withstand several re-uses. Moreover, Evolon can offer endless possibilities of unique-looking three-dimensional textures, designs, color-coding and prints, according to the company.

"Based on this high flexibility, Freudenberg has continued to strengthen its position in high-performance industrial wipes with unique, custom-made products meeting the specific demands of its customers," Kerhault explains. "Some of the latest R&D projects include alternative components and composite constructions."

Nonwoven producer Jacob Holm's main technology for the industrial wipes market is its Sontara spunlace, which it acquired from DuPont in 2014. With Sontara, Jacob Holm offers a range of specialty wipers for industrial wipes applications such as cleanroom, aerospace, automotive and food processing.

Sontara products are made using proprietary technology for high demanding applications. High-speed water jets are used to hydraulically entangle various fibers to form a strong absorbent web. Sontara uses no binders, chemicals or adhesives. "Our manufacturing process is sustainable and ultra-pure," explains Eileen Calder, marketing manager Critical Cleaning, Jacob Holm. "We use filtered water of drinking quality and zero chemicals, and our manufacturing environment and air quality adhere to the highest standards."

According to the company, the Sontara substrate has exceptional mechanical strength, excellent absorbency, and because the fibers are washed during fabric formation, it exhibits very low lint. Last year, the company invested over €2 million in its Asturias, Spain, facility, which manufactures Sontara spunlace nonwovens. The investment increased the number of products made at the site using newly installed production technology. The new asset allows Jacob Holm to pursue increasingly broad technological growth by providing advanced capabilities to tailor the performance of its products with more accuracy within a broader potential specification set. The advancement also offers customers access to a significantly expanded range of customization options and new fabric properties for performance critical applications.

From Calder's point of view, several mega trends will continue to boost growth for industrial wipes. The aging population will impact healthcare applications; growth in food service is in part being driven by millennials who are spending more



Jacob Holm's Sontara spunlace nonwovens are manufactured with environmental sustainability in mind.

than 50% of their food budgets eating out. And in aerospace, the continued growth of airline travel globally is driving increasing demand for superior products that ensure perfection is guaranteed, she says.

Mercantile Development, Inc., (MDI), a developer of non-woven wipers, also has an optimistic view of the market. The company's nonwoven wipers are trademarked under its Pro-Series brand in a controlled ISO 9001:2015 certified environment. MDI is exclusively focused on nonwovens, and offers a comprehensive wiper portfolio, market expertise and service excellence to its partners, according to MDI president Lucia Furman. The manufacturer continuously invests in its people, technology and manufacturing infrastructure.

"We collaborate with our suppliers and customers to drive advancements in performance-driven materials, unique dispensing capabilities and sustainable packaging solutions," Furman says. "As third generation owner-operators, we maintain a positive outlook and want to continue the momentum set in motion seven decades ago. The leadership team at MDI believes tremendous opportunities exist for continued strategic growth. We are committed to our founding principles of operational excellence and relationship-building and are proud to be stewarding the business to endure for future generations."

With increased speed, finished roll

ENR-G3

FASTER THAN EVER: THE NEXT GENERATION FULLY AUTOMATED PERFORATOR REWINDER

- 700 feet per minute (213 m/min)
- Up to 22 cycles per minute
- Sheet length from 4" to 12" (102-305 mm)
- Right hand or left hand discharge
- 12 " finished roll diameter (305 mm)
- Enhanced Tail Orientation Optional Ultrasonic Tail Tie

WORKS WITH ALL INDUSTRY STANDARD NONWOVENS





Now Equipped with ELSNER IIoT so you can maximize asset utilization, decrease manufacturing costs and monitor your production from anywhere.





Converter Round Up

An update on providers of finishing, packaging, slitting, winding and other services to the nonwovens industry

onverting companies are an integral part of the nonwovens supply chain. For all of the advantages the industry's products provide, a lot has to happen prior to their end use. Nonwovens need to be cut into a variety of shapes and sizes, scaled down to become a single-use product, as well as printed, packaged and more. Sometimes the process is simple, and sometimes more complex, with converting companies using the latest technology to add value to products and make them easier to use. The following is a compilation of capabilities and services of some the nonwovens industry's leading converters.

Athea Laboratories

Athea Laboratories continues capital investment in new machinery to further improve manufacturing capabilities. The purchase of a second new high speed perforator machine and additional high volume mixing tank emphasize Athea's capabilities as a full turnkey wet wipes and liquid product manufacturer with the ability to handle all of its manufacturing in house.

With over 50 years of experience, Athea Laboratories is a leader in specialty wipes, liquid and powder contract manufacturing and packaging. Its expertise and experience gives companies an extensive variety of product formats to serve numerous end-user markets with private label products. As an EPA and FDA facility, Athea's manufacturing capabilities include custom wipe converting, custom formula development, blending services, on-site chemists, formula-substrate compatibility testing, graphics, and technical and regulatory support. Athea can offer companies turn-key solutions to their packaging needs at low minimums.

www.athea.com

Beckmann Converting

Beckmann Converting delivers important value to original product manufacturers and textile suppliers through volume production contracts and new product development services in the toll laminating space for multiple layer textile composites. The company specializes in ultrasonic laminating and hot melt adhesive laminating (Gravure applicator rolls) processes, utilizing proprietary equipment and technologies that provide unique competitive advantages in meeting demanding customer requirements.

Ultrasonic laminating lines can process materials up to 130" wide with finished product incorporating from two to seven layers combining nonwovens, films, knits, wovens and meshes. By eliminating the use of adhesive materials, ultrasonic bonding is truly a "green" process, and textiles in the layers retain their unique properties including strength, loft, breathability, filtration and chemical resistance while optimizing composite performance. Beckmann



Laminating multiple layers of textiles into a composite at Beckmann Converting.

Converting can process materials up to 80" wide in hot melt adhesive laminating. A wide variety of adhesives can be used to achieve the in-use requirements, from true thermo-plasts to PURs (Reactive Polyurethane Resins). A range of ad-

hesive add-on weights can be applied by using 4 gram, 10 gram or 16 gram/square meter, random computer dot engraved rolls.

Developments implemented recently position Beckmann Converting with the capacity to handle growing production volume requirements in multiple industries including filtration, environmental, protective apparel, protective covers, healthcare products, cleanroom wipes, among others. Through continuous improvement programs, the company has shortened the lead time to production startup when taking over manufacturing of existing products. When it comes to working with customers on new product development projects, Beckmann Converting employs expert hand sample, roll trial and pre-production verification programs focusing on achieving manufacturability while retaining end use performance of the finished product. These critical processes are formalized in its ISO 9001:2015 standard Quality Management System, recently recertified through September 2022.

www.beckmannconverting.com

Berk International

Boyertown, PA-based Berk International manufactures a broad line of nonwoven wipes, paper towels and bath tissue. The company is an expert in converting an assortment of materials including DRC, spunlace, airlaid, hydroentangled nonwovens, meltblown, needle-punch, TAD, tissue and towel. The Berk family has been in the wipes converting business since 1975 and has established a reputation of producing high quality products at reasonable prices. CEO Larry Berk and president Jeff Berk, who is head of sales, started Berk Wiper in 2000 and have grown the business every year since.

With 17 production lines running 24 hours a day in its 275,000 square foot facility, no job is too big or too small. From private labeling to contract converting to their own brands, Berk has it all. The company converts wipes for every market including Jan-San, food service, healthcare, automotive and industrial. Its capabilities include



BMP America, Inc.

11625 Maple Ridge Road Medina, NY 14103

> Tel: 585-798-0950 Fax: 585-798-4272

Email: info@bmpamerica.com www.bmpworldwide.com

BMP specialises in the design and manufacture of engineered nonwoven and elastomer related products for use in a wide array of industrial applications. BMP is ready to work with you from concept to commercialisation.

We strive to provide the highest quality products utilising our vertical integration and product innovation. Combined with our global manufacturing locations in the United States, Mexico, Asia and Europe. BMP provides its customers with unmatched customer support and satisfaction.

Converting & Process Technologies

- Technical lamination
- High speed die cutting
- Automated length cutting
- Precision roll winding / slitting
- Automated sewing
- Ultrasonic and heat welding
- Needle punching
- Thermal bonding
- Pleating
- Calendaring
- Coatings (Flame Retardant, PTFE, Latex)
- Chemical treatment
- Cast and moulded polyurethane
- Value added assembly
- Pressure sensitive adhesives
- Remanufacturing and asset recovery

Materials Processed Include

- Needle-punch non-woven
- Polyurethane elastomers
- Extruded silicone rubber foams
- Hydro-entangled non-woven
- Spun-bond non-woven
- Thermal-bond non-woven
- Pile fabrics
- Adhesives
- Mylar
- Plastics
- ePTFE membranes

Testing & Analytical Capabilities

- Linear & rotary abrasion
- Tensile strength
- Elongation
- Air permeability
- Compression
- Material analysis (DSC, FTIR)
- Filtration efficiency
- Friction
- Electron Microscopy (SEM)
- Contaminant holding capacity
- Atomic fiber identification
- Liquid extraction & identification
- Environmental control chamber
- Flame resistance
- Thickness
- Weight and density
- Flow vs. Differential pressure
- Bubble point & mean pore flow diameter

Manufacturing Capabilities

Die Stamping | Cutting | Slitting | Sewing | Stitching | Grinding | Laminating | Chemical Surface Treatments | Sonic Welding | Web Wrapping | Oil Impregnation | Oil Bottling/Blending | Vertical Coating | Polyurethane Molding | Polyurethane Casting | Light Assembly | Asset Recovery | Remanufacturing

BMP America

BMP America is a tier one supplier of components to major OEM companies in the Appliance, Construction, Printing, Automotive, Filtration and Renewable Energy market sectors. BMP America has obtained certified supplier status to many of its customers and is therefore a sole source of many of these components. BMP America operates in a JIT environment with its customers and suppliers. BMP America, Inc.'s headquarters and manufacturing facility is in Medina, New York along with a subsidiary manufacturing facility located in Juarez, Mexico. BMP also has technical sales offices in Oregon, Connecticut, Maine and Quartero, Mexico.

The Western New York and Mexican facilities primarily manufacture engineered non-woven products and assemblies for OEM accounts in North America, while sister companies, BMP Europe, which is locate in England, manufactures similar products as well as engineered polyure-thane elastomers for accounts primarily in Europe and BMP Asia manufactures similar products for accounts located primarily in the Asia-Pacific region and is a contract manufacturer for BMP America and BMP Europe.

In general, the manufacturing process is short run and job shop in nature with many processing, converting and assembly operations. Both the US, European and Asia manufacturing facilities have similar capabilities and equipment enabling the transfer of business between our sister companies with minimal disruption if conditions warrant.

BMP is a wholly owned subsidiary of Andrew Industries Ltd., a privately-owned company whose core technology is in the manufacture of industrial textiles, specifically, needle felts and thermal bonded non-woven for various applications including filtration, insulation, laundry and business machine applications.



flat sheeting, interfolding, 1/2, 1/4, 1/6 and 1/8 folding, perforating, printing, rewinding, laminating and slitting.

www.berkwiper.com

BMP America

BMP America Inc. is part of a global manufacturing group specializing in the manufacture and conversion of technical nonwoven textiles, engineered polyurethane elastomers, mechanical components and sub-assemblies used in a diverse range of industrial applications. BMP America is a tier one supplier of components to major OEM companies in the appliance, construction, printing, automotive, filtration and renewable energy market sectors.

BMP America, Inc.'s headquarters and manufacturing facility is located in Western New York along with a subsidiary manufacturing facility located in Juarez, Mexico. The company also has technical sales offices in Oregon, Connecticut, Iowa Michigan and Maine.

The Western New York and Mexican facilities primarily manufacture engineered nonwoven products and assemblies for OEM accounts in North America. Meanwhile, sister companies, BMP Europe, which is located in England, manufactures similar products as well as engineered polyurethane elastomers for accounts primarily in Europe, and BMP Asia manufactures similar prod-

ucts for accounts located primarily in the Asia-Pacific region and is a contract manufacturer for BMP America and BMP Europe.

In general the manufacturing process is short run and job shop in nature with many processing, converting and assembly operations. Both the U.S., European and Asian manufacturing facilities have similar capabilities and equipment enabling the transfer of business between its sister companies with minimal disruption if conditions warrant.

BMP offers contract converting services worldwide to include the following capabilities: slitting, laminating, die cutting, sewing, pleating and assembly.

BMP is a wholly owned subsidiary of Andrew Industries Ltd., a privately owned company whose core technology is in the manufacture of industrial textiles, specifically, needle felts and thermal bonded nonwoven for various applications including filtration, insulation, laundry and business machine applications.

www.bmpworldwide.com

Canopus Wet Wipes

Founded in February 2017, and beginning production in May 2018, Canopus Wet Wipes strives to serve the growing middle and upper classes in India with wet wipes in various categories. Located in Karnataka, India, the company is producing hygiene



We at E&T Converters strive to provide our customers with the best quality converting by offering over 40 years of experience. By aiming high and being customer focused, we can help our customers with new product development at any level. Experience, quality, competitive pricing and innovation are the building blocks that allow E&T Converters to be your one stop source for all of your converting needs.



E&T Converters 1558 Duvall Road Chatsworth, GA 30705 706-217-2574 www.eandtconverters.com

SLITTING SHEETING REWINDING DIECUTTING

- slit from 8" to 36" using propietary equipment
- polyester/cellulose blends, 100% polyester nonwovens, multi-layer material
- bag, seal and print on packaging in clean environment

Small Runs • Custom Sizes • Private Label



CONNECTICUT CLEAN ROOM CORPORATION
32 Valley Street • Bristol, Connecticut 06010
860-589-0049 • ctcleanroom.com

wipes (baby, intimate, hand), cosmetic and facial care wipes, medi-bath wipes and homecare wipes (furniture, glass cleaning), pet care wipes and eye glass cleaning wipes, among others.

Six months after the plant went into operation, expansion had already begun. Today, Canopus has three fully automated machines, increasing capacity from 15 million pieces to 45 million pieces per year. To serve all types of requirements around the world, the company introduced Z-fold with and without interlock, one machine solely designed for Z-fold or C-fold with cross fold facility to serve beauty care five pieces to 30 pieces, as well as single or double pieces with five-fold small pouch to carry easily. The single wipe pouch serves airlines, travel, five-star hotels, conferences, etc. Currently the company has its own brand, Canopus, which is well received in India.

The factory is situated at Harohalli, KIADB Industrial Area, Ramanagara District, in a 12,000 square foot manufacturing facility.

Part of Canopus' strategy to stand out from the competition is to launch innovative products that Indian consumers haven't seen before. One of these products is sports wipes, furniture/glass cleaning/ multipurpose wipes, as well as eye glass cleaning wipes which the company says no other company has introduced to the Indian wipes market.

"We can manufacture at competitive rates and produce flush-

able wipes with GD4 certification," says Ashok. Kulkarni, consultant for technical textiles. "We can make biodegradable wipes. Currently we have 22 variants to serve the world market, and water and chemical content will remain intact for a longer period without drying. Our quality of product and packaging will be the standout point of our company. Very few companies in India adhere to REACH, INCA, ECHA, EUP, INDA and EDANA standards. Our wipes will be affordable, the best quality and easily available in the nearest stores."

www.canopuswetwipes.com

Converted Products

In 1993, Converted Products, Incorporated (CPI) opened for business with the simple idea of providing quality contract converting services in slitting and die cutting. Twenty-six years later, CPI has kept that same simple premise but has expanded its contract services to include wider width, high speed slitting, hot melt laminating, traverse (spool) winding, rotary and flatbed die cutting, warehousing/logistics and product/process development. Certified in ISO 9001:2015, Converted Products' 160,000 square foot facility is located on the northwest side of Milwaukee, WI.

CPI's slitting capabilities include score, shear, razor, single

STRAGEGIC WET WIPES PRODUCTION

Canopus Wet Wipes Pvt Ltd. welcomes you to the world of wipes in Bangalore, which assures to be one of a kind. It begins its journey in this industry with experience, values and an honest effort to realize its dreams.

The products are made of polyester viscose blends, 100% viscose, biodegradable, 100% polyester and wet laid pulp wipes 100% biodegradable.

Contact us today!





B-54 Printech Park Cluster, KIADB Industrial Area Phase-1, Harohalli, District Ramnagara - 562112, Karnataka, India +91 9880510330, +91 9741545085 | sales@canopuswetwipes.com



knife and rotary, in widths ranging from 1/8 to 136 inches along with experience in a wide variety of flexible materials. CPI also offers a full-service Quality department performing on-site analysis, certifications and reports to meet a wide array of industry needs.

In 2017, CPI upgraded its high speed, wide-width equipment by installing a new winder with a drive assist unwind. President and founder of CPI Chris Gorenc says, "We had the opportunity to keep our equipment on the leading edge by installing a high speed, wide-width surface winder with a drive assist unwind. There aren't many contract converters who have the drive assist technology. It gives us an opportunity to work with low tensile materials that need a driven unwind to ensure a quality wound roll."

But CPI's work on efficiency didn't end with just a machine. It went to work on eliminating as much waste in its process as well by implementing and adopting its own version of Overall Equipment Effectiveness (OEE). "We started by using whiteboard's and worked into a more sophisticated database. Regardless of the method, we had to reduce our downtime as much as possible. It is a never-ending process to drive out wasted time and make sure our customers get the best price we can offer," Gorenc adds.

Continuous improvement is a staple of CPI's ever-evolving capabilities.

The new surface winder features the following capabilities: total width: 130"; slit widths: 3" to 130"; unwind OD max: 100"; rewind OD max: 72"; drive assist technology; unwind ID's: 3", 6", 6-3/4", 8", 10", 10-5/8", 12" (others available upon request); rewind ID's: 3", 6", 6-3/4", 10" (others available upon request); and speeds in excess of 4000 ft. per min.

www.convertedproducts.com

EFFE 4

EFFE 4, an Italian company specialized in second grade spunlace processing, has doubled its turnover in the past three years.

All this was possible thanks to two huge investments—new slitting lines were started in October 2017 and in May 2018.

These are not standard systems but designed and built ad hoc by a specialized workshop and by EFFE 4 management, which has taken care of every detail in order to optimize the working processes.

Four new employees have recently joined EFFE 4, and one will soon be added to the small and specialized team of 13 people.

The second grade spunlace sold by EFFE 4 has enormous success, thanks to the good quality in relation to the price. All the material is verified and subjected to cutting and slitting according to the customer's requests.

The great work carried out in recent years has led the company to have very low quantity of non-recoverable waste, 95% of the non-workable material is in fact sold to various Asian companies that are involved in recovering several types of fibers.

www.effe4.eu

Gelok International

Gelok International manufactures a wide range of hydrogenbonded superabsorbent laminates and airlaid cores for multiple markets including feminine hygiene, adult incontinence, food pads, filtration and medical packaging. It custom designs absorbent cores to meet a client's exact performance needs and then manufactures it under strict quality and process control standards conforming to ISO 9001-2015. Gelok can design the cores to target specific performance characteristic such as reduced rewet, acquisition rate, high permeability or high capacity.

The laminate is produced and shipped in rolled goods format either as the master rolls or slit down to customer specified widths. These products can have an absorbency up to 15,000 gsm of 0.9% saline.

The TotalCore Airlaid range of products can have an absorbency up to 10,000 gsm of 0.9% saline and are produced and shipped either as master rolls, slit rolls or festooned bales. Because of their high absorbency, thin profile, flexibility and soft-



Gelok produces hydrogen-bonded superabsorbent laminates and airlaid cores.

ness, these products are ideally suited for skin sensitive application such as feminine hygiene, incontinence and wound care dressings.

www.gelok.com

National Wiper Alliance

Located in Swannanoa, NC, National Wiper Alliance (NWA) continues to be known as the largest private label and contract converting operation in the U.S. focused on dry wipes. National Wiper currently has over 35 converting lines. However, with the increasing customer demands, both domestically and internationally, NWA has recently completed the installation of four new converting lines; including its fifth slitter, a floor pad line and automated lines for the production of sheets and pillowcases. In addition, NWA has completed the renovations of its 152,000 square foot warehouse. Lastly, as of September 12, National Wiper launched its new website. Its user friendly and interactive website allows customers to learn more about its products and services. NWA is registered to ISO 9001:2015 standards

National Wiper Alliance and its owner, Jeff Slosman, have received numerous awards over the past years. These awards include: SBA-North Carolina 2015 Small Business Person of the

October 2019



Tufco

3161 S. Ridge Road Green Bay, WI 54304

Tel: 920-336-0054

www.tufco.com

Tufco's dedication to Quality, Service and Innovation makes Tufco the leading contract manufacturer for branded wet wipes in North America. We pride ourselves on the ability to offer our customers a combination of industry experience, strong R&D support, new and emerging technologies utilizing a CI approach to process improvement, making Tufco an exciting and fast paced place to be.

Tufco demonstrates a high level of both manufacturing excellence and unquestioned ethics. We work with our customer's brands in a way that is seamless to the end user by meeting and or exceeding all of their quality expectations. Tufco offers services ranging from product development, raw material sourcing, lab analysis, responsive customer service, dedicated sales support, a multi-functional partnership across many business disciplines, and a low profile in the industry. We focus on our ability to produce excellent products for our customers in a way that makes the product the star and our role as a manufacturer invisible to the end user.

Everything at Tufco starts and stops with Quality. With a quality team that covers both QA and QC, Tufco is capable of everything from product development to product testing at a level that meets FDA, EPA, ISO, and customer standards. We pride ourselves in our customer's trust

and confidence in Tufco to be the silent partner in manufacturing their market leading brands.

Tufco's position is to be excellent in selected categories with a focus on a strategic partnerships that fit our business model. We strive to be the highest quality, competitively priced contract manufacturer of branded wet wipes.











National Wiper Alliance has over 35 converting lines.

Year – Jeff Slosman; NC Chamber of Commerce – 2015 Manufacturer of the Year – Honorable Mention; Business NC Magazine – 2015 NC Small Business of the Year and Wake Forest Family Business Center – 2016 NC Family Business of the Year; 2018 WOW Innovation Award Finalist – Rhino Wipe Tote System; 2018 Governor's Export Award – Top Global Reach Exporter.

www.nationalwiper.com

Fox Converting

Wide Web - Roll to Roll

Capabilities

Materials
Non - Woven

Coating
Printing
Laminating
Custom Converting

Non - Wovens Tissue DRC Film Paper Foil

Capability. Quality. Innovation.

Green Bay, WI 920. 434. 5272 info@foxconverting.com FB: Fox Converting Inc LI: Fox Converting



Nonwovens of America

Nonwovens of America, Inc. (NOA) is located in Swannanoa, NC, operating a 5.4-meter air-lay needlepunch line and running colors in a weight range of 3.5 ounces per square yard to 34 ounces per square yard. In addition to the needlepunch line, NOA provides custom converting services including 10-color, 99" wide rotary screen print line, blanket lines, an inline calendar, and slitting and re-rolling.

NOA offers toll converting services, as well as all other converting services. The main areas of focus are automotive, retail, geotextile, industrial and emergency blankets. NOA provides



Nonwovens of America provides a range of custom converting services.

in-house customer service, product development, warehousing, logistics and distribution support.

www.nonwovensofamerica.com

Phoenix Fabrikations

Phoenix Fabrikations by, The Netherlands - since 1968 one of the first European Nonwoven pioneers, promotes microfilament nonwoven fabric that cleans intensively, due to an unique ultra thin fiber structure. Phoenix is ready to personalize the fabric by dyeing in any Pantone color, converting to wipes and printing customer's logo, based on a very low minimum volume of only 2000 sqm. Additionally, packaging services can be arranged according to the customer's requirement and specification.

In addition, Phoenix recently launched a bamboo spunlace nonwoven for wiping applications like wet wipes, baby wipes and cosmetic wipes. Phoenix anticipates the trend that requires greener products.

www.phoenixfabrikations.com

RubberMill

RubberMill die cuts, laminates and fabricates non-metallic materials for roll goods suppliers and OEM manufacturers serving the appliance, automotive and other noise mitigation and insulation markets. Its facility in Liberty, NC, near Greensboro, and new

October 2019



RubberMill die cuts, laminates, and fabricates non-metallic materials.

manufacturing site in Hickory, NC, provide convenient access to a large variety of nonwoven manufacturers and distribution channels to meet customer requirements. Its experienced production team utilizes flatbed belt presses up to 76 inches wide, automated travel head presses, CAD driven die-less cutting, rotary presses and a variety of slitting and adhesive application equipment.

RubberMill is registered ISO 9001:2015 and certified as a

Woman-Owned Small Business by the WBENC. It also maintains a ULYellow Card on its high loft, fiberglass-free FibraMat insulation product to simplify customer product registration.

RubberMill's goal is to ensure customer satisfaction by exploring ways to reduce costs, simplify supply chains and/or improve processes. It has been awarded the Innovative Supplier Award by a large OEM two times in five years.

www.rubbermill.com

Sidwin Fabric

Sidwin Fabric is one of India's largest manufacturers of polypropylene spunbond nonwoven fabric with two double beam lines—one 3200 mm and the other with 2.65 mm width having online hydrophilic kiss roll system can deliver up to 1200 mm roll diameter on 3", 4" paper core. The range of fabric 8 gsm to 200 gsm with functional properties like hydrophilic, hydrophobic, softness, anti-static, flame retardant fabric, etc., are available. The company has facilitated with advance testing labs to ensure gsm, tensile test, elongation, liquid strike through test and MFI of raw materials inspection for continuous quality control supply. It exports up to 60% materials to the international market.

Sidwin Fabric specializes in agriculture crop protection fab-



Since 1993, Converted Products has provided quality, creative and reliable contract converting services throughout the nonwovens industry.

SERVICES

- Slitting / Rewinding
- Sheeting
- · Die-Cutting
- Hot-Melt Lamination Spool Winding
- Packaging

FEATURES

- ISO 9001:2015 Certified Manufacturing & Warehousing
- cGMP Manufacturing Environment
- SAP Integration and Real-Time Monitoring
- In-House Quality & Performance Testing
- Fully Climatized Storage and Manufacturing Facilities

Converted

414.354.4433 | CONVERTEDPRODUCTS.COM | MILWAUKEE, WI



ric that is UV stabilized, having its own registered brand name "Grow Cover." It can supply up to 18 meter wide fabric for agriculture use which is known as row cover, low tunnel fabric, landscape fabric as well fruit protection products.

www.sidwinfabrics.com, www.growcover.in

Southeast Nonwovens

Southeast Nonwovens, Inc. (SENW) is the only independent North American facility for manufacturing, converting and developing staple fiber-based nonwovens.

SENW offers contract roll good manufacturing using the wetlay, dry lay, and air lay processes: Wet lay lines - 36" and 63" wide; card and needlepunch line - up to 90" wide; and air lay line - 1 meter wide.

SENW also offers boutique contract converting services via slitting, sheeting and die-cutting. In 2019, SENW added a 72-inch wide double-belt laminator with the capability to combine multiple layers of material or to include functional additives.

SENW continues to offer industry leading product development services – supporting wet lay, carding, hydroentangling, needlepunch, calendar bonding, coating and air lay manufacturing processes. Its material science experts have extensive experience understanding a customer's requirements, design-

ing products and then using its laboratory and pilot scale equipment to produce distinctive prototypes.

www.southeastnonwovens.com

Web-Pro

Headquartered in Kaohsiung, Taiwan, Web-Pro is a leading Asian producer of spunlace nonwovens, breathable films and laminates roll goods for medical, hygiene and wipe industries around the world. These products are developed for applications such as medical gauze, wet wipes, makeup removers, facial masks, industrial wipers, poly-laminates for under pads and protective clothing, flexographic color-printed films for nursing pads, baby diapers and adult incontinence products.

Web-Pro opened its first overseas manufacturing plant in Vietnam in the third quarter of 2019, and the Vietnam operation is mainly serving customers in the local and global hygiene and wipe markets. The Vietnam operation offers value-added supply chain integration services and contract manufacturing services such as three-layer laminated medical nonwovens and converted wipes to its customers to mitigate potential risks from trade conflicts and to enhance the company's business continuity strategy.

www.web-pro.com.tw





Focus on China

Companies continue to look to China for growth and nonwovens investment is following

By Karen McIntyre, Editor

ccording to market research group Freedonia Group, non-wovens demand in China is expected to increase 6.9% per year to 4.9 million metric tons in 2022. While economic growth has begun to slow to more sustainable levels, it is expected to remain strong until 2022 and will fuel significant gains in nonwovens demand as the country's consumer base expands. China has a large export market for goods that contain nonwovens, so healthy growth in nearby markets (e.g., India, Indonesia, Malaysia, Philippines, Vietnam) will also support gains in Chinese nonwovens demand

Nonwovens demand in China totaled 3.5 million metric tons in 2017, making it the largest national market in the world. China achieved its leading position over the course of the last decade as part of a broader trend of extremely rapid expansion throughout the country's economy.

Some of the reasons for this expansion include rapid increases in per capital GDP over the past four decades since the beginning of its economic reform in 1978. This growth has brought substantial reduction in poverty levels and transformed China into a global manufacturing leader, including in the production of goods containing nonwoven materials.

During the past 10 years, growth has really accelerated, according to Freedonia. In 2007, the Chinese nonwovens market was slightly

smaller than the U.S. market, but by 2017 it was well over twice as large.

Much of this growth is being driven by aggressive plans from users of nonwovens, particularly in the hygiene, automotives and filtration segments. These companies are looking to cash in on consumers' rising disposable incomes and thirst for premium products.

According to executives at Unicharm, a Japanese maker of diapers and other disposable products, continued strong growth in the Chinese baby diaper market has been led by rising demand for high quality, Japanese-made, high value-added disposable diapers and pants-style disposable diapers that are reliable and safe. Unicharm's strong position in pants-type diapers means it is well-placed to benefit from the current business environment.

Against that backdrop, Unicharm is introducing Japanese-made Moony pants-type diapers in China and actively investing in marketing in the country. Those efforts are strengthening product brands and Unicharm's corporate brand, supporting continued strong sales growth through cross-border e-commerce channels and regular import channels. The company aims to maintain that momentum by offering products that address a wide range of different needs and by increasing shipments to regional cities.

Meanwhile, in the feminine hygiene market, where Unicharm currently holds a marketshare of about 17%, the company says it



continues to enjoy strong support from young women in China thanks to its high value-added products, which offer high quality and have cute packaging designs. Also, Unicharm's online sales are outpacing growth in China's rapidly expanding e-commerce market. Its online sales have risen to account for about 20% of total sales and it now has the leading position in the online market. Going forward, Unicharm aims to capture the top share in China by rapidly developing sales channels and increasing the number of sales areas where it is the market leader.

After some initial missteps in the Chinese diaper market, Procter & Gamble reports its diaper sales are back on track in the country thanks to the launch of Pampers Ichibon premium tape style diapers and the upgrade of a premium pants-style product on the market, two moves that were met with great success. The pants products have increased sales 200% to capture the number one spot in the category while the new diaper is already available in 10,000 baby shops and 4800 superstores. These wins have allowed P&G to grow its marketshare in the Chinese diaper market for the first time in a long time.

Amidst this success, however, Pampers mid-tier tape style diaper, which comprises 75% of the company's sales in China, continues to struggle, but the company expects inventory adjustments to help fuel growth here in the coming quarters.

Likewise, Kimberly-Clark executives recently told investors at Barclay's fall investors conference that the Chinese market has recently returned to growth after two years of challenges. Crediting factors like a more stabilized market, focus on products that appeal to sophisticated Chinese consumers, and the launch of new products combining softness and fit, CEO Michael Hsu says after driving growth in premium diapers, K-C is now rolling out technology to the mid tiers of the diaper market. Also benefitting the company overall is applying lessons learned in China and applying them to other strong growth markets in the country.

"Our team is doing a great job of taking best innovation from lead markets like China and Korea and rapidly rolling them out across the region," Hsu adds.

According to market tracker Euromonitor, the Chinese baby diaper market is growing at about 9% per year driven largely by volume growth spurred by the relaxation of the one child policy, which increased the birth rate. Additionally, the per capita usage of diapers remains low at 395, meaning there is still significant penetration to be made in the category.

While this growth is attractive, competition can be fierce in China, particularly among the Japanese manufacturers. Kao was the first company to capitalize on this phenomenon. After noticing how many of its premium diapers Chinese tourists brought home with them, the company began selling its Merries brands locally and soon many of its fellow Japanese manufacturers followed suit.

Nonwovens Investment Continues

In response to strong moves from hygiene suppliers in China and throughout Asia, nonwovens producers continue to focus on investment in the region. While these efforts have slowed slightly, new lines continue to be planned.

Berry Global, the world's largest nonwovens producer, is putting the finishing touches on its latest spunmelt investment, a 20,000-ton Reicofil 5 spunmelt line located in Nanhai, China. Announced in 2017, the new line will target the Asia-Pacific markets with specialty soft products for hygiene applications. The line should reach commercialization in the fourth quarter.

Robert Weilminster, president of North America, says: "The new Reicofil technology will allow us to better meet our customer demands with a comprehensive product range."

The Nanhai site was built in 2014 to replace an older site originally built there in 1996.

Outside of hygiene, Berry also added a specialty meltblown line that will produce high efficiency filtration media for the Asian markets. The investment is a part of the company's Health, Hygiene and Specialties Division and is focused on premium applications in the room air purification, industrial face mask and cabin air filtration markets.

"The filtration market is growing rapidly and we are excited to expand our capacity to accommodate the growing markets and increased demand. Our commitment is strong to this market and the entire nonwovens space. Our investment in meltblown capacity is the next step in advancing our market leading position in filtration solutions," says Scott Tracey, president of Berry's Health, Hygiene, and Specialties Division.

Also in filtration, Freudenberg Filtration Technologies has expanded its Chinese presence through the purchase of Apollo Aircleaner Co., Ltd. in China. Apollo is a leading supplier of air and water filtration solutions in China. In 2017, Apollo had around 1000 employees and generated 750 million RMB in sales (approximately €96 million).

Kao Honors Bostik

Kao China granted the Excellent Proposal award to Bostik during Kao China's Vendor Summit in July in Shanghai. Johan Hommersom and Tata Wu accepted the award on behalf of Bostik.

The Excellent Proposal Award is granted to Kao's top vendors who made technical and commercial proposals dedicated to improving quality, performance and cost. Kao is collaborating with Bostik, a world-leading adhesive supplier, to drive value for end consumers.

"I feel greatly honored to receive the Excellent Proposal Award from Kao China on behalf of Bostik," says Hommersom. "Bostik will make continuous efforts to support our customers to achieve smarter values and outputs."

"By purchasing the majority stake in Apollo, we are strengthening our position in China's rapidly growing market for filtration solutions," says Mohsen Sohi, Freudenberg Group CEO.

Air and water filtration solutions are enjoying strong year-on-year growth rates, especially in China, thanks to legislation demanding stricter regulations and increased environmental awareness. Experts estimate that the global market for products of Apollo – filters for room air purifiers, decentralized ventilation systems and water treatment – will have a total value of some \$5 billion by the 2022.

"Apollo is a great fit for Freudenberg," says Andreas Kreuter, CEO of Freudenberg Filtration Technologies. "It is an innovative technology company that complements our own portfolio of filtration solutions for indoor air and water purification. The company also has first class production expertise and excellent networks in the industry."

The product solutions of Apollo keep air or drinking water free of (ultra) fine particles, dangerous gases, odors and microorganisms and protect health. At its production site in Shunde, China, the company has established high standards for product quality, process efficiency and workplace safety, and is certified to ISO 9001, ISO 14001 and TS 16949.

Apollo continues as a joint venture between Freudenberg (major shareholder) and the current sole proprietor Apollo Trading Group, Japan, under the name Freudenberg Apollo Filtration Technologies. Freudenberg Filtration Technologies intends to bring its current consumer filtration business into the joint venture.

Manufacturing, research and development and customer services at both Freudenberg Filtration Technologies and Apollo have benefitted from the transaction. Main examples are the complementary competencies in filter media and gas filtration, which is growing ever more important.

"For nearly 20 years, Apollo has been offering innovative filtration solutions, improving the quality of life in China," says Akihisa Yamamoto, CEO of Apollo Trading Group. "The global development and production network and the more extensive portfolio of technological product solutions stemming from this joint venture will primarily benefit our customers."

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

With the new production line, Freudenberg has increased its annual production of technical textiles in Suzhou by around 8 million m2. Customers will particularly benefit from higher quality of the next generation headliner products. "This investment underscores our long-term commitment to Asia. We want to continue to support our customers in the automotive market with innovative and sustainable solutions that will help them grow," comments Dr. Frank Heislitz, CEO of Freudenberg Performance Materials.

Freudenberg & Vilene Company headliners are based on non-



Together with officials from the government, Dr. Frank Heislitz (third from right / CEO of Freudenberg Performance Materials) and Mr. Atsushi Shimoda (chief technical officer of Japan Vilene Company / second from right) inaugurate the new production line.

wovens and can be finished in various ways to provide additional functionality.

Apart from excellent surface appearance with good abrasion resistance, outstanding acoustic properties and improved stain resistance, these products contribute to higher comfort in the car interior as well as marked reduction in vehicle weights when combined with other vehicle components. In addition, the company also uses a proportion of recycled products in the manufacture of its products. In this way, Freudenberg helps its customers to reduce their environmental footprint.

"Freudenberg & Vilene Company offers its customers innovative products ensuring consistently high quality," explains Heislitz. Freudenberg & Vilene Company first introduced printed headliners to the market in 2010, thus capturing a special customer need. Already in 2016, the company invested in an additional production line.

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

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

Meanwhile, local Chinese companies continue to invest as well. In September, machinery supplier Andritz received an order from Zhe-jiang Yanpai Filtration Technology in China, for three needlepunch lines to be installed at its site in Tiantai. Start-up of the lines, which will produce high-quality needlepunched filter felts, is planned from the fourth quarter of 2019 to the first quarter of 2020.

The Andritz needlepunch lines will enable Yanpai to obtain high output and also minimize the downtime required. Yanpai is one of the leading producers of nonwoven filters for dust and air treatment. Established in 1990, Yanpai was at the forefront in development of new industrial filtration fabrics. Yanpai is a leading company in the production of woven filter fabrics and one of the world's major manufacturers of nonwoven needle felt products. The company mainly manufactures filter fabrics for solid/liquid separation.



A Nonwovens Industry Special Section

ACelli Nonwovens SpA	43
Fameccanica	44
GDM	
HengChang Machinery Co. Ltd.	46
Int Knife (Shanghai) Industry Co., Ltd	47
Quanzhou Hanwei Machinery Manufacturing Co. Ltd.	48
Shandong Taipeng Nonwoven Co. Ltd.	50
Xiamen Gachn Techology Co., Ltd.	52
Xingshi Equipment Co. Ltd.	54



A.Celli Nonwovens is well positioned in China market with many years of experience of successful operation and impressive sales growth.

With nonwovens production in China continuing at an incredible rate, A. Celli made the decision to invest and upgrade its branch office to offer manufacturing capabilities to better serve and support its customers.

Since 2011 A.Celli Shanghai Machinery Co., Ltd. represents a state-of-the-art manufacturing facility, manufacturing components exclusively for domestic market.

In Spring 2019, in order to be even more competitive and to give its Asian customers the utmost attention and the best services they deserve, A.Celli opened an additional facility in the south of China: A.Celli Foshan Technology Co. Ltd., located in Foshan (Guangdong province). The new company branch team consists of highly specialized managers and technicians, ready to offer the best of A.Celli technology, guaranteeing services, such as commercial assistance, postsales service and additional technical support.

New projects in China finalized for 2019/2020

China is a strong, buoyant market with great potential for the future in the field of nonwovens, dictated by consumers' growing demands for high quality products and hence increasingly automated machines. And A.Celli is well poised in this scenario, partnering both multinational groups and leading independent producers of roll goods.

Latest innovations from A.Celli Nonwovens

A.Celli Nonwovens has been designing and manufacturing machinery for the nonwovens industry for over 75 years.

Winding, slitting & reprocessing Solutions.

A.Celli Nonwovens offers a comprehensive range of master roll winders and slitter-rewinders featuring state-of-theart solutions customized to spunbond, spunmelt, spunlace and airtrough bonded nonwovens roll goods production with a special focus on lightweight fabrics and high-speed production. The product range includes accessory systems such as High Speed Lamination Line and Spooling System, currently capable of production speeds of up to 800 mpm, guaranteeing maximum flexibility and customization.

Integrated Solutions.

The objective of the A.Celli Group, which falls well within the definition of "Smart Factory", involves the global integration of the machines.

A.Celli R-WAY® - INTEGRATED SO-LUTION is a business unit completely dedicated to advanced end-of-line logics offering fully automatic packaging systems SLITTOPACK®, Automated Guided Vehicles (R-WAY® AGV) and fully Automated Warehouses integrated into the production line for the management of products.

Digital Solutions.

The entire industrial sector has evolved significantly with the advent of Industry 4.0, which has represented the driving force for rethinking our technology.

In 2016 the A.Celli Group set up its first facility entirely dedicated to the development of innovative solutions for analysing and managing the data of its machines.

The new business unit, called EXTREME AUTOMATION®, is specialized in Big Data Analysis - IT Infrastructure - Machine Learning & Artificial Intelligence.

Printing Solutions.

IRIDIUM®, the innovative and flexible A.Celli print revolution developed to offer the highest quality printing onto different kinds of substrates including nonwovens, PP/PE film and tissue, with a wide range of basis weights, offering roll goods producers the possibility to add aesthetic benefits to their products, empowering their brands with high definition designs and images.

A.Celli 2-CARE® - Always caring.

A.Celli Nonwovens 2-CARE® puts a strong emphasis on the level of assistance and service; it offers its customers upgrades and retrofits to existing lines, machinery integration and equipment assessments for updates or revamps to improve quality, performance and throughput. The company offers technology transfer and training workshops known as A.CELLI ACADEMY and the innovative on-line spares service MvSp@res.



A.Celli Nonwovens S.p.A.

Via Romana Ovest, 252 55016 Porcari (LU)

Italy

Phone: 39 0583 21171 Fax: 39 0583 299340 info@acellinonwovens.com

www.acelli.it

A.Celli Shanghai Machinery Co., Ltd.

928# Jiugong Road Jinshan industrial Zone Shanghai - 201506 CHINA Phone: +86 21 672 250 70 Fax: +86 21 672 250 73 info@acelli.cn www.acelli.it

Contact person: Chang Chung (Calvin) Liu (President) Services: Electronic field service Mechanical field service Sales management Project management Manufacturing capabilities Staff of 15 including six field

A.Celli Foshan **Technology Co., Ltd.**

17/F, Foshan GloryIFC, 25 Ronghe Road Nanhal District, Foshan, 528000 Phone: +86 0757 63522060 Fax: +86 0757063522077

www.acelli.it Contact persons:

engineers

Dereck Ke derek.ke@acelli.cn Alex Chen alex.chen@acelli.cn

See ad on page 3





FAMECCANICA SHANGHAI

MACHINERY

Fameccanica Machinery Shanghai is the Asian Technological Pole of the Fameccanica Group. Fameccanica Machinery Shanghai's goal is to offer effective solutions, real time technical assistance, transfer of information and complete technical documentation, and for this reason it highlights a solid and reliable organization.

A COMPLETE RANGE OF MACHINES FOR THE DEVELOPING AND EMERGING MARKETS

The company produces a wide range of medium-high performance machines covering the different product types of baby diapers (open and pull-on styles), adult incontinence briefs and pants, lady sanitary napkins and pantishields.

PULL-ON PANT STYLE DIAPERS: A "MUST" FOR THE ASIAN COUNTRIES

This diaper version is more and more requested in the Asian markets and Fameccanica offers 4 baby pant machine platforms featuring a "Cross-direction" manufacturing process for diapers with full waist elasticization with production speed of 500, 650, 800 and the 900 ppm recently introduced high speed version. All platforms can produce baby pants with a 3-piece H-structure or 2-piece hourglass structure. On top of the traditional threads waist elasticization, Fameccanica has also recently introduced a new concept of elasticization made by the continuous or intermittent application of elastic film with its well-known unique technology for in-line processing of breathable, elastic laminates.

ADULT INCONTINENCE: PANT-TYPE AND OPEN-TYPE SOLUTIONS

Pant diapers are also a "must" for adult incontinence and Fameccanica can offer its range of machines from 250 to 500 pieces per minute. Also in this case, machines are designed to manufacture hourglass or H-shaped pants with the traditional thread waist elasticization version or with Fameccanica technology for inline processing of breathable, elastic laminated waistband with ultrasonically bonded transpiring spots, to create a discrete and soft-feeling product with maximum fit and comfort.

Besides pant diapers, Fameccanica incontinence line-up still includes open diaper machines, that can manufacture both classic leg shaped or multipiece products, the last ones having either rectangular or shaped elastic zero trim ears.

MATERIAL TRANSFORMATION

Within a philosophy of flexibility and customization, Fameccanica offers equipment for the perforation and printing of materials and the realization of 3D laminates, which can be either integrated on the machine line, or dedicated stand-alone machines.

These solutions come up beside the already known MLSCTM for fluffless multilayer SAP cores, to create the desired core structure with up to 7 different layers for engineered FLUFF-LESS Cores, achieving breakthrough integrity with excellent results in terms of SAP immobilization. MLSCTM can be integrated with Intermittent SAP & X-THRUETM Core Control System, where the targeted SAP application replaces the standard homogeneous distribution and the X-THRUETM controls SAP presence and position in the core.

"GREEN" BABY PANTS AND DIAPERS

With regard to the baby diapers category, one of the most recent sustainability-inspired projects carried out by the company is characterized by several new features, among which we just mention the most successful:

- GLUELESS™ Cuffs for intermittent bonding of cuff elastics.
- GLUELESSTM Waistband for pant diapers with elastic threads.

PACKAGING MACHINERY

To complete the production process, Paksis D5 is the new solution for the packaging of baby diapers and training pants, offered by Fameccanica and Optima alliance, that gives the possibility of both manual and automatic bag filling. Paksis D5 is an integrated ("all-in-one") counting-stacking-packing equipment.



Fameccanica Machinery Shanghai.

Fameccanica

Via Aterno, 136 - 66020 Sambuceto di S. Giovanni Teatino (Chieti) Italy

Fax: +39-085-4553725

Fameccanica Machinery (Shanghai) Co. Ltd.

No. 1951 Duhui Road Plant 10 Xin Zhuang Industry Park Min Hang District Shanghai 201108 P.R.China

Phone: 86-21-6442-2977 Fax: 86-21-6442-2981

china@fameccanica.com www.fameccanica.com

Wayne Zhang, Sales Manager

Pierluigi Gorgoretti, FMS Site Manager

See ad on Cover 2



a coesia company

On the market since 1986, GDM is globally recognized for its successful tradition in designing and manufacturing machinery for disposable hygiene products. GDM is part of Coesia, a privately owned group of innovation-based industrial and packaging solutions companies operating globally, headquartered in Bologna, Italy.

Coesia has been growing over the years, acquiring leading companies in various industrial sectors and strengthening its global presence. This development is taking place upholding the values of respect, responsibility, and knowledge that have distinguished the Group throughout its history.

As part of Coesia, GDM shares Group resources all around the world improving local presence and effectiveness. Presently, GDM manufactures complete lines and upgrade kits and provides technical assistance in Italy and Brazil as well as local technical services in all main worldwide regions, with particular focus in Suzhou (China) and Richmond –VA (USA).

GDM CHINA

GDM local capabilities in China spread from machines sales, technical support and spare parts supply. New solutions are continuously developed to provide competitive advantage to our customers.

The Disposable Hygiene Market continues to see positive current value growth in China, deriving from aging population, increasing hygiene awareness in rural areas and a surge in demand for baby products, as well as the rapid growth of pro capita GDP, leading consumers to be more willing to invest in hygienic products to improve their quality of life. All these elements bring China to be the fastest growing country in this market. Particularly, Baby Pants are booming and are forecasted to achieve an astonishing +21% CAGR 18-F20 in retail volumes (1).

In this country, the latest consumer trends on Baby Pants are focusing on products providing stretch-ability, softness, better fitting comfort, leakage free and ease of use.

In this respect, GDM Baby Pants solution, including **BP6** and **BP8** machines running respectively at **600 ppm** and **800 ppm**, ensure great machine performance as well as contemporary and performing products perfectly matching market needs, giving **competitive advantage** through the best **Total Cost of Ownership**.

Our proposal includes the latest innovations on optimized absorption, leveraging on our development in **core formation**, such as the Extra Thin Core and the possibility to combine it with premade engineered core. We have been developing the breakthrough Cuff Elastic Entrapment using USB technology, ensuring a softer and more comfortable sensation. Dry skin and soft surface can be achieved through the use of 3D central NW in Topsheet construction and the "easy slip on-off" feature will be ensured through the elastic Waist Band.

In addition, we offer also a wide range of packaging solutions to stack and bag Disposable Hygiene Products. To sustain the industry shift from semi-automatic to fully automatic applications in packaging for the Disposable Hygiene market, oriented to efficiency and cost saving, GDM is launching the new **SB50 GO**.

Meeting the market expectations, SB50 GO machine, with 100% made in Italy design, combines ease-of-use and reliability with an advantageous investment level.

On October 28th – November 1st, during GDM China Days in Suzhou, we will present the SB50 GO in a World Premiere event. Don't miss the opportunity to find out how this line is your "made-for-me" solution.

All our packaging units are available either as stand-alone or turnkey with our converting lines, providing the benefits of a single supplier from converting to primary packaging.

GDM expertise and competences are always at the service of our customers. We support them in finding the most effective solutions to meet the market needs through our "Drive the future" events, based on co-innovation, conceived to exchange needs and ideas on raw materials, product features, designs and operative issues.

Visit GDM website at www.gdm-spa.com to discover our full product portfolio.

(1)Source: Euromonitor International Limited [2019] © all right reserved



Focus on China 2019

GDM

No.8 Building, No.17, East SuHong Road, SIP Suzhou China P.C. 215000

Tel. +86 0512 62810680

e-mail: info.it@gdm-spa.it www.gdm-spa.com

See our ad on Back Cover

Focus on China 2019



We provide complete solution from production to packing for adult diaper, adult pull-up diaper, baby diaper, baby pant, sanitary napkin and pantiliner.

World advanced level created from china



Servo driving synchronizing with the world's technology and remarkable cost-effectiveness will create the maximum benefits for you wherever you are.

Innovation capability keeping pace with the times and abundant manufacture strength.

Increaingly mature technical global support.

Through years of cooperation with the world famous multinational corporations and well-known global suppliers, our management and product quality have been greatly improved.

Heng Chang Machinery Co., Ltd (HCH) is a leading manufacturer of personal care converting and packaging machines supplying the Baby Care, Adult Care and Feminine Care markets globally. HCH is a privately owned family business founded in 1988 and has delivered over 800 assets. As the industry leading manufacturer in China, HCH continues to improve converting technology at an affordable price. HCH is continuing to expand offerings globally and is aligned with multi-national and regional suppliers of consumer product companies.

HCH has built a strict management system and obtained customers' consistent evaluation by the advanced manufacturing techniques, self-contained processing measure and perfect after-sales service. In the past 10 years, HCH increased number of computer controlled machines to ensure conformance to specifications on manufacturing components.

To the famous domestic producers of disposable hygiene products, HCH has been the first choice for converter and packing machine suppliers and possess a comparatively bigger market share compared to other competitors. HCH's machines are used widely by domestic high-end users and exported to Europe, America, West Asia, Southeast Asia, Middle East, and Africa. Typically, HCH has been working with many international companies and providing machines to their plants worldwide. On 2008, we won the rewards of

Global Excellent Supplier from P&G, and on June 3rd, 2013 in KC biennial Global Excellent Supplier Meeting in Dallas of USA (head-quarters of KC), HCH stand out from their global 75,000 suppliers and won the rewards, we are the only Asian machine manufacture of the 7 vendors who receive this honor. In 2015, we won this reward again from KC and became the only one company in the world who win it consecutively.

To adapt international market, HCH develops a series of disposable hygiene products automatic converters with high technology to fit market requirements. All these machines' technology and safety targets accomplish European Standard. The speed of all kinds of converters are remarkably increased and reached to real world level.

HCH will celebrate 30 years' anniversary on November 9th when the most innovated pilot lines will be demonstrated to all the customers and suppliers invited to this great event.



Heng Chang Machinery Co., Ltd

Xiao Gu Shan Road, Development Zone, Anqing, Anhui,China

> Tel: +86-556-5325888 Fax: +86-556-5357893

Email: aqhch@aqhch.com.cn xiaoyuan@aqhch.com.cn victoria.sun@aqhch.com.cn supeng@aqhah.com.cn Web: www.aqhch.com.cn

See our ad on page 19

NT KNIFE ®

Focus on China
2019

Zeji (Shanghai) Industrial Co. Ltd. is a private owned company, which established on 2001, and a leading pneumatic slitting knife holder and slitting knives manufacturer. In the recent 20 years, INTKNIFE is a representative of high quality and reliable supplier. Currently, INTKNIE products are widely used in nonwoven, film, paper and glass fiber industries, particularly in nonwoven industry, INTKNIFE owns over 80% market share in China, and serves worldwide customers along

with China's best machine builders. Zeji is serving customers more effectively by virtue of Shanghai, the center of economy, trans-



portation, finance and technology in China, and looking forward to working with more distributors worldwide to serve worldwide customers better.

Int Knife (Shanghai) Industry Co.,Ltd

No.257, Ln.255, Si zhuan South Road, SJ District, Shanghai,P.R.China,201619

E-mail:sales@intknife.com MengHong 137 6137 5949

Tel:+86(0) 21 5616 0425 Fax:+86(0)21 5767 7047



Focus on China 2019



Established in 1989, Quanzhou Hanwei Machinery Manufacturing Co. Ltd. is specializing in R&D, making, sales and service of these machines for disposable hygiene products, is one of the first reminding impressive equipment suppliers.

Based on technology reach and development, Hanwei Company began with many transnational corporations for joint reach and development design since 2010, and strongly attracts domestic and foreign design talents. After prolonged efforts, now has a strong design and development team, Self owned nearly 100 patents of invention and innovation, ensure top quality, high reliable performances, and high efficiency and advanced. After many years of efforts and innovation, since 2012, the company development strategic plans from keep the original equipment design standard, gradually towards to the field of high-end equipment. The company has been successfully entered into the highend professional equipment manufacturers, and be recognized by the most of the domestic top enterprises.

Responsibility

Hanwei Company with the standard of various physical indexes of first well-known international brands of hygienic products, adjusting the machine parameters, make product every index was reach or better than the first-line brand, share the empirical data with our customers, and it's a breakthrough of the common phenomenon that equipment manufacturers focus solely on the machine technology. Hanwei Company under the premise of guarantee the quality of equipment, more to study the terminal products, develop new products, to help customers achieve personalized advantage in the cost and product performance. Customers can choose HANWEI machinery to make worldleading hygiene products. Strategic cooperation customers can take advantage of the company's rich experience in the production of disposable hygiene products machinery to help their own product development, massproduction and provide technical support.

In 2016, Hanwei Company's production capacity is doubled than last year, in talent pool, standard formulation, suppliers began to preparing since the second half of last year. After last two years of transformation, the current market has given certain rec-



ognition. Good order has been arranged to August at the beginning of the year. During the transition was forced to abandon some low-end orders, and this year appears the order backflow phenomenon, especially in the export of high-end orders.

Business Philosophy

Pay attention to the research and development, increase R&D investment. Hanwei Company believes that only excellent technology and meets customer underlying demands to win the future, and this is also one of our positioning of core competitiveness. Now the Chinese market the concept of consumer groups in sanitary napkin and diaper have changed, the product requirements is higher and higher, and will no longer refuse to high-end products. Therefore, HANWEI Company in product comfort, absorption function, leakage-proof and intelligent equipment has been done to improve and got the customer approval.

Pay attention to quality, build production precision workshop. In order to enhance the stability of equipment, we did ascend in the parts assembly and parts processing, repressively to establish precision assembly workshop and precision machining workshop, to ensure the precision of parts and components have reached international standards, and make all the preparations for high-end equipments and stable operation.

Pay attention to win-win, carry out strategic cooperation model. Look for a shared vision customer in international and domestic for strategic cooperation, both sides full participation in the process of corporation, technical exchange and communication in the early stage, parts production process with supervision and correction, participate in from the start of parts assembly, which let the customer know more about equipment principle and application notes. To establish a real strategic cooperative relationship, achieve a win-win station.

Quanzhou Hanwei Machinery Manufacturing Co., Ltd.

No. 123 Dounan Street, Changtai Avenue, Licheng District, Quanzhou, Fujian, China 362000

> Phone: +86 595 22488988 Fax: +86 595 224875588

> > hanwei@han-wei.com www.han-wei.com



速度范围Speed range

250-350 PPM

ADVANCED ADULT PANT MACHINE

高端成人拉拉裤生产设备



300-350PPM

VANCED ADULT DIAPER MACHINE

高端成人纸尿裤生产设备





泉州市汉威机械制造有限公司

地址 福建省泉州市鲤城区常泰街道斗南街123号 电话: +86(0)595 22488389/588/988 同址: www.han-wei.com

传真: +86(0)595 22487588 邮箱: hanwei@han-wei.com

QUANZHOU HANWEI MACHINERY MANUFACTURING CO.,LTD.

NO.123, Dounan street, Changtai avenue, Licheng district, Quanzhou, Fujian, China. 7362000 Fax.: +86(0)595 22487588 Tel.: +86(0)595 22488389/588/988 Email: hanwei@han-wei.com Website: www.han-wei.com

Focus on China 2019



Shandong Taipeng Nonwoven Co., Ltd was founded in 2003, and was listed in NEEQ on 2015. Now Shandong Taipeng Nonwoven becomes the largest PET long filament spunbond nonwoven manufacturer in China, integrating scientific and development, producing and operating. Shandong Taipeng Nonwoven is wholly-owned stockholding company of Shandong Taipeng Group, the National High-tech Enterprise, Provincial Technical Center, member of CNITA, and top ten nonwoven enterprises of China.

Shandong Taipeng Nonwoven is certificated with IATF16949 and ISO9001, ISO14001, OHSAS, GB/T29490 system. Taipeng nonwoven production passed American NSF certification and polyester wadding production passed Swiss OEKO-TEX certification.

Production Lines & Production:

Taipeng Nonwoven has 5 PET spunbond lines, 2 needlepunched line and 1 coating and laminating line, 1 printing line and 1 glue dusting line:

line		Mate rial	Weight	Widt h	emboss ing type	Delivery time	Equipment
Line 1	Spunbond	PET	15g-260g	126	Point	10-30days	China
Line 2	Spunbond	PET	17g-260g	94"	Point	10-30days	China
Line 3	Spunbond	PET	12g-300g	94"	Point and Flat	10-30days	Japan,German
Line 4	Bi-component	PET	15g-350g	94"	Point and Flat	10-30days	German
Line 5	SMS	PET	10g-260g	126	Point	10-30days	Japan
Line 6	Needlepunch	PET,P P	60g-600g	126	Flat	10-30days	China
Line 7	Needlepunch	PET,p p	60g-600g	126	Flat	10-30days	China
Line 8	Coating and laminating	PP,PE	15g-100g	94"	Flat	10-30days	China
Line 9	Printing			63"		10-30days	China
Line 10	Glue dusting			94"		10-30days	China

Advanced Technologies

Bi-component - Excellent Nonwoven material for Filtration

(1) Pool & Spa filtration

- Taipeng Bi-component nonwoven is made from low melt point Co-PET and high melt point Ho-PET, which provide firm bonding and good thickness. The fabric is thicker and stiffer than monocomponent nonwoven and is easy for pleating.
- No chemical binder, safe and reliable for pool & Spa filtration.
- Used trilobal fiber to enlarge the superficial area, so the dust holding capacity of the fabric is better.
- Used 2 beams to produce, the fabric is of 2 layers of different fiber finess, which achieve gradient filtration to make the fabric serves longer



(2) Air Filtration

- Round Sheath-core fiber provides good stiffness and thickness which enlarge the dust holding capacity make the fabric good material for air filtration media and supporting material.
- Coarse fiber provides high air permeability and low filtering resistance, more efficient.
- Bi-component provides good strength and firm bonding, so the fabric has no shedding edge and losing fiber, suitable for all kinds of air filtration under different environment.

• SMS – Good Uniformity and Tensile Strength

Taipeng SMS nonwoven are produced by advanced equipments imported from Japan. The SMS nonwoven fabric can be PET/PBT/PET or PET/PP/PET three layers, thus the fabric is of very good uniformity and tensile strength and barrier property, and is the wonderful material for waterproofing, lamination and automobile trim etc. Except SMS nonwoven, the advanced production line can also produce SS production. With 2 beams, the line can produce low weight material with good uniformity for printing and packaging.

PLA nonwoven – Degradable and Environmental

PLA (Poly Lactic Acid) is a kind of non-toxic, non-irritant. It is made from natural plants so it is completely degradable environmental material. Taipeng PLA nonwoven retains all these properties, which makes it the best choice for tea and coffee bags, shopping bags, agricultural cover, hygienic material etc., especially in area where there is a ban on plastic materials.

Product Available:

Shandong Taipeng Nonwoven provides various kinds of Nonwoven fabrics with different colors and breadth on the basis of complying with customers' requirements, the productions can be endowed with multiple functions (antistatic, antibiotic, inflaming retarding and hydrophilic functions) by adding appropriate additives.

Grammage 10g to 370g
Breadth 100mm to 3300mm
Styles Flat or Point

TAIPENG NONWOVENS, SHARE WITH THE WORLD.

Shandong Taipeng Nonwovens Co., Ltd.

No.313,Gongye 3 Road, High-Tech Development Zone, Feicheng City, Shandong,China.

Contact: Mr. Song

Cell: 18953838567 Tel: 0086-538-3393666 Fax: 0086-538-3309866

E-mail:song@sdtaipeng.com



Taipeng Nonwoven Share with the World

Shandong Taipeng Nonwoven Co., Ltd is a national high-tech enterprise, and the largest professional PET long filament spunbond nonwoven manufacturer of China, certificated with IATF16949 and ISO9001, ISO14001, OHSAS, GB/T29490 system. Taipeng Nonwoven products passed NSF and FDA certification.



Cologne, Germany

22-24th Oct.

Booth No. T38

Geneva, Switzerland

31.Mar-3.Apr.2020

Booth No. C29

Focus on China 2019



GACHN: thriving on intelligent manufacturing

Gachn Technology focuses on automated packaging technology. Among the diaper equipment series, Gachn offers prefabricated bag baby diaper packaging, and rolling film tape packaging machine. The prefabricated bag baby diaper packaging targets on European style packaging while the rolling film tape packaging fulfills mainly the demands from Chinese style packaging. According to the product style, Gachn provides Chinese style baby diaper packaging machine, pull-ups packaging machine, and adult diapers packaging machine. The entire series is covered with full-servo driving system with entirely automatic operation in pressing, bag-opening, bag-filling, positioning, and sealing. The latest design reaches the production output rate of 60 packages/min, quality stable at 40 bags/min. The design for placing packaging material is by batch-stacking, allowing greater stability in bag-moving and feeding. It also drastically decrease manual need in placing materials and elevate efficiency.

In responding to the trend of smart manufacturing and automation, General Manager Mr. Dai believes that the efforts that they have invested in these technologies will begin to flourish and help the company in creating their unique technological advantages in packaging. Gachn has nourished a strong R&D team that will ensure equipment reaches perfect accuracy, automation and unmanned solution. It is all going to be a revolutionary journey for the hygiene market.



















aging company globally.

Gachn will keep investing in product development, and also strengthen the R&D team with newly formed innovation center. Thriving for new innovation will be our core niche to remain our leading position in the market, besides becoming a listed company. With more resources and integrated capital, the next stage is to build a healthy eco-system that emphasizes on environmental-friendly plus intelligent manufacturing. With these prospects, Gachn holds the opportunity to leap to the top pack-



No. 898, Tong Long 2nd Road, The Torch Hi-Tech Zone, Xiang An Xiamen City, Fujian Province, China

> Tel: +86-592-7770578 +86-152 59505297 Fax: +86-592-7770538

> http://www.gachn.com ljj@gachn.com





GACHN TECHNOLOGY

Intelligentized packaging machine manufacturer

Our vision

To be the No.1 position in the world.

Our value

Fair / Competed / Perfect / Win-Win.

Our mission

Intelligent manufacturing perfect product.

creating real value for customers with all our heart.



The diapers full auto counting stacker with packaging machine.

The counting stacker speed: 800pcs/min
The packaging machine speed: 50bags/min

The sanitary napkin full auto counting stacker with packaging machine.

The counting stacker speed:2000pcs/min

The packaging machine speed :60bags/min

XIAMEN GACHN TECHNOLOGY CO.,LTD.

No. 898, TongLong 2nd Road, The Torch Hi-tech Zone, Xiang An District, Xiamen city, Fujian Province, China.

Tel:+86-592-7770518 Fax:+86-592-7770538

Mail:ljj@gachn.com

WhatsApp No.:+86-15259505297

Web:www.gachn.com



Focus on China 2019



Guangzhou Xingshi Equipments Co., Ltd was founded in 1999 in China as a professional manufacturer of machine line for the disposable hygiene products. We are located in Guangzhou city, the business center of south china. The first



set of fully servo sanitary napkin machine supplier in china, and the first fully servo baby diaper machine with stacker in china was manufactured in Xingshi.

Xingshi focus on the complete solution for the clients, we believe that we are not only the supplier, we try out to be the partner of our clients. Today, we could provide the service, which covers product's design, raw material sourcing, fabrication, assembly and debugging, stated machine modification, products' upgrade and the machine line maintenance. We listen to the client, find out the required points and make them into reality for them. In these years, we make the further improvement of the machine stability, reliability and consistency.

Today, Xingshi have more than 300 skilled staffs and over 100 machining tools. We have the ability of making 50 machine lines every year. Insisting innovation and speeding up development make Xingshi to be best choice of the clients of the disposable hygiene products for the machine. Good service and the stated team guarantee the fast and efficiency service for our client.

Xingshi could supply the convert machine including the sanitary napkin machine line, baby diaper machine line, baby pants machine line, adult diaper machine line and panty liner line, and the new stacker with the new auto-packaging machine will bring you satisfaction.

All we desired is to make our customer have exactly what they require.

SERVO Sanitary Napkin Machine

2. Core driven unwinding system with

3. Full speed auto splicing system.

Welcome to Xingshi.

Equipment characteristic

tension control.

1. Fully servo driven system.

Guangzhou Xingshi Equipment Co., Ltd.

No. 11, Zhong Han Road, Zhongcun, Panyu District, Guangzhou, China

Tel: +86-20-8451 5266 Fax: +86-20-8477 6421

xingshi@xingshi.com.cn www.xingshi.com.cn

See our ad on page 25

4. Raw materials pneumatic shaft.

- 5. Auto reject system.
- 6. Web guidance system.
- 7. Touch screen control panel, control with picture.
- 8. Precision-machined parts by CNC.
- 9. Compact designed, easier for operation.
- 10. Sound enclosure for low noise level operation.
- 11. Fully servo driven high speed stacker.
- 12. Category-3 safty control system.

SERVO Baby Diaper Machine

Equipments characteristic

- 1. Fully servo driven system.
- 2. Unwinding system with tension control.
- 3. Full speed auto splicing system.
- 4. Pneumatic shaft for raw material fixing.
- 5. Auto-reject system.
- 6. Edge guidance system.
- 7. Touch screen control panel, control with picture.
- 8. Drum forming core.
- 9. Leg cuff and waist elastic band application.
- 10. Textile back sheet online laminating.
- 11. Servo stacker auto bag feeding.

SERVO Baby Pants Machine

Equipments characteristic

- 1. Fully servo driven system.
- 2. Auto splicing under full speed.
- 3. Vision system for quality control and positioning control.
- 4. Touch screen control panel, control with picture.
- 5. Back sheet graph and frontal carton registration control.
- 6. Waist band multi seal and cut unit.
- 7. Elastic individual tension control system.
- 8. Final products alternate direction stacking.
- 9. Fully servo driven stacker and packaging
- 10. CE standard safety control system.



FILTECH

October 22-24, 2019 | Cologne - Germany

Innovation

true to life!



Welstrat, a patented innovation from Welspun engineered to address the pain point of Hydrolysis in the intermediate temperature range Industrial Filtration. The unique blend offers considerable increase in the life of filter components by sustaining the impact of Hydrolysis, Acid & Alkali fumes and delivering a guaranteed performance in terms of Reduced Emissions, Increased Efficiency and Greater Energy Savings.









Applications

Mining | Asphalt | Cement | Steel | Chemical





October 2019 Web Showcase

A special advertising section featuring the Internet home pages of nonwovens-related companies from around the world. The listing is arranged in alphabetical order.

ACelli Nonwovens www.acelli.it Products Seniore A.Cell Resource of Nonwovens, tissue and paper winding & rewinding & rewinding Customised volutions for the second of nonwovens of goods production. PLANE Nonwovens finishing lines Advanced solutions for the incomment and the lawfunction for the second of fogures, residual, solutions of forms and the lawfunction for the second of fogures, residual, solutions.



CB Packaging

www.cbpackaging.it



GDM SpA

www.gdm-spa.com



Heng Chang Machinery

www.aqhch.com.cn



Medco Coated Products

www.medcocoatedproducts.com



Sanming PNV Machinery

www.cnpnv.com



Xingshi Equipment Co. Ltd.

www.xingshi.com.cn



Clean Baby Care Line

myris, Inc., a leader in the development and production of sustainable ingredients for the Flavors & Fragrances, Health & Wellness and Clean Beauty markets, has launched Pipette, a breakthrough baby care brand that supports and nurtures skin in its most delicate state. At launch, the line includes seven products; including shampoo and wash, lotion, oil, wipes and balm for baby, and belly butter and oil for expecting and postpartum moms. Pipette is available for purchase now online at Pipettebaby.com and will be available in the coming



weeks at buybuyBABY. com, Amazon.com, Walmart.com, and Dermstore.com as well as in-store exclusively at buybuy BABY stores nationwide.

"Pipette is raising the bar for clean baby care," states Caroline Hadfield, president of Pipette."Our millennial consumers are now becoming parents, and

they demand a cleaner, safer option for their babies. Pipette was born from this overwhelming need for gentle, nontoxic products that scientifically work for babies' skin."

Amyris's first consumer brand, Biossance, launched in 2016 with clean, sustainable skincare products developed from cutting-edge biotechnology. Since its launch, Biossance has brought the high-performing skincare products to the market and continues to define the industry standard for clean beauty. In response to parents asking for better-performing, safer products for their babies, Amyris conceived Pipette: a new Amyris brand reinventing clean personal care for babies and moms using the fewest possible ingredients from the purest sources.

Brand partners and supporters of Pipette's mission and products include dedicated parents, Rosie Huntington-Whiteley, Justin Baldoni and Tamera Mowry-Housley, who are all passionate about baby products that are free from potentially harmful chemicals. This dynamic trio understands how daunting the sheer volume of information and misinformation can be when it comes to caring for babies and their skin. Huntington-Whiteley, Baldoni and Mowry-Housley will help moms and dads navigate these parenting decisions in a way that is educational and empowering.

"I'm very pleased to support the Pipette brand mission of giving parents the best-performing and safest choice when it comes to caring for their loved ones," says brand partner HuntingtonWhiteley. "Pipette is responding to the needs of parents who increasingly refuse to buy products that are harmful to them, their children, and our environment."

Disinfectant Wipe Launched

Safetec of America has launched the newest addition to its surface disinfectant line, SaniZide Pro 1. SaniZide Pro 1 is a broad spectrum, EPA Registered surface disinfectant that combines cleaning and disinfecting in one simple step with its ready-to-use, alcohol-based hospital-grade formula.

This formula is safe to use and specifically designed for medical, dental and veterinary offices. SaniZide Pro 1 makes staying compliant more manageable by reducing the risk of cross-contamination with true, one-minute kill claims. Available in a 32 oz. spray, a 150 ct. canister or individually packaged pre-saturated wipes, all of the above options are effective at killing 48 microorganisms and safe for repeated use on hard, non-porous surfaces that are found in healthcare environments.

SaniZide Pro 1 is effective against MRSA, VRE, Tuberculosis, Trichophyton Mentagrophytes (Athlete's Foot and Ringworm), Poliovirus, Norovirus, Rhinovirus, and more.

Hygienic Eyelid Cleansing Wipes Debut

Bruder Healthcare has launched Bruder Hygienic Eyelid Cleansing Wipes. These lid hygiene therapy wipes feature a leave-on, no-rinse formula that helps dissolve and remove excess oils and debris from eyelids and lashes to improve overall ocular health. The pre-moistened, individually wrapped wipes are hypoallergenic and free of harsh chemicals.

"Bruder Hygienic Eyelid Cleansing Wipes contain no tea tree oil or other ingredients that sting or burn," says Stan Joseph, vice president of Sales and Marketing. "In fact, these wipes are gentle enough for daily use."

Bruder Hygienic Eyelid Cleansing Wipes are available in a box of 30, as well as in the Bruder Hygienic Eyelid Cleansers Combo Pack that includes 30 wipes and 1 fluid ounce of Bruder Hygienic Eyelid Solution (0.02% pure hypochlorous acid). Using the two products together helps maintain overall ocular health while improving eye comfort.

For optimal lid hygiene results, therapy begins by gently wiping a Bruder Hygienic Eyelid Cleansing Wipe across the eyelids and lashes. Clean lids and lashes will be more receptive to the benefits of the antibacterial Bruder Hygienic Eyelid Solution. After cleaning, apply one to two sprays to closed eyes to reduce bacterial growth and other microorganisms. No rinsing is required. Simply spray and let dry.

Consumers Seeking Transparency in Wipes

By Jürgen Eizinger, Vice President of Global Business Management Nonwovens, Lenzing AG



s the global disposable wipes market has been seeing a considerable growth, calls from consumers for ingredient transparency and enhanced functionality are now also on the rise. According to a Reportlinker study (https://www.freedoniagroup.com/industry-study/wipes-market-in-the-us-by-product-and-market-8th-edition-3527.htm), growing consumer demand for naturally sourced, gentle and environmentally friendly products contributes to the premiumization of the disposable wipes market. The eco-friendly aspect enhances the competitiveness of biodegradable wipes against traditional personal care and cleaning products, such as reusable cloth. While more consumers are looking for functional biodegradable and natural products, brands are also finding ways to ensure product performance and secure competitiveness in the market.

A brand's competitive edge in wipes comes from high performance products that consistently ensure cleanliness. Therefore, brands consider strength, absorbency and touch as well as additional properties like biodegradability when choosing fibers. Wood-based cellulosic fibers represent a strong alternative to synthetic fibers, not only due to their performance but also because of the call from consumers for more sustainable, biodegradable products which help to preserve the environment.

Naturally absorbent, gentle to touch and biodegradable

A large proportion of wipes on the market uses synthetic fibers because they are strong and tear resilient. However, these fibers lack absorbent qualities and are not biodegradable. Wood-based cellulosic fibers, on the other hand, are naturally absorbent. Their natural structure enables them to take up moisture into the inner fiber structure, which allows the final product – such as a disposable wipe – to hold more liquid, and hence clean surfaces very effectively and gently.

Excellent embossing characteristics lead to permanent structures in both wet and dry state, further enhancing the performance of wipes in terms of liquid absorption and cleaning properties. On top of that, regenerated cellulosic fibers are biodegradable, soft in touch and gentle on skin.

Tailoring wipes according to the market's needs

In addition to performance, brands are looking for sustainable products that can be customized for different end applications. For instance, the new Lenzing Eco Lace technology opens a way to process lyocell shortcut fibers and wood pulp into 100% cellulosic wipes,

where strength and tear resistance in both dry and wet state can be adjusted. The wetlay processing stage constructs randomized orientation in the substrate of the fibers, creating balanced tear resistance in all directions. As a result, wet wipes produced under such technology will not stretch excessively when pulled out of packages, as it often occurs with common carded-spunlace substrates. Final product strength can be adjusted through the pressure applied during the second part of the process – hydroentangling, enabling the manufacture of nonwovens suitable even for heavy duty industrial applications.

Choosing the right fibers

Having in mind that consumer habits are forever changing, paying attention to the sustainability of raw materials used in non-woven products is increasingly important. Shifting one's product pipeline towards more natural and eco-friendly materials will likely enhance product appeal, thus opening up opportunities for manufacturers, brands and retailers. Constant innovation and addressing of sustainable needs will prompt the whole supply chain to adapt to changing consumer trends and drive the circular economy movement forward.

Opting to be more sustainable does not mean a compromise on quality or performance. Thanks to the development of new technologies, fabrics and wipes can now be tailored for specific purposes, addressing the needs of consumers. Whilst advocating for a greener planet, 100% biodegradable cellulose fibers can now be utilized in more high-performance nonwoven applications.

www.lenzing.com

Joa Offers Side Seam Bonding Technology

Curt G. Joa, a global, custom-engineering design and machinebuilding company, announced the invention of a side seam bonding technology.

The new Single Anvil In-Line (SAIL) Bonder from Joa uses a patent-pending design that provides better bond strength with unique designs, reduces overall costs for maintenance and material consumption, plus allows simple adjustments for size changes. Until now, the traditional ultrasonic process was limited by the dwell time required to form bonds of sufficient quality, limiting machine speeds. Joa's invention breaks through barriers and provides consistent quality at the highest production speeds. Furthermore, with the precision of the process, seams require less material which creates a more aesthetic product.

The unique SAIL Bonder has four key benefits for customers: Better bond strength - optimized per material and consistent across all sizes; flexible bond patterns - unique designs previously unavailable; reduced costs - less inventory, simplified maintenance, plus material savings from the reduced pattern width; and simple adjustments - electronic size change at the push of a button

www.joa.com

Hyperion Makes Acquisition

Hyperion Materials & Technologies, a global materials science company focused on the hard and super-hard materials space for high precision applications, has signed an agreement to acquire Arno Friedrichs Hartmetall GmbH & Co. KG and its affiliates (AFC), a global solutions provider in premium tungsten carbide blanks used in the manufacture of high precision rotary cutting tools for drilling and milling applications.

The transaction is highly complementary and will create a leading player in tungsten carbide blank production, with a global footprint that is well-equipped to support finished toolmakers in the metal cutting industry with a wide portfolio of products. The combined company will continue to focus on service, innovation and growth as a non-rival supplier to its customers.

"We are thrilled to combine AFC's leading innovation capabilities and differentiated manufacturing processes with Hyperion's deep application expertise and materials science capabilities," says Ron Voigt, CEO of Hyperion. "AFC is a premier producer of cemented carbide rotary tool blanks with an exceptionally talented workforce and a great reputation for supporting their customers and addressing their most challenging needs. In combining the talent and capabilities of both companies, we will be able to enhance our product offering through customer-focused innovation and provide even greater value to our customers."

"It is with great pleasure that I announce our partnership with Hyperion. Given our shared focus on providing best-in-class products to finished tool manufacturers, this partnership is a perfect fit. The combination will strengthen both companies and support AFC's continued development," says Arno Friedrichs, CEO and founder of AFC.

At the close of the transaction, Friedrichs will step down as CEO and join Hyperion's Board of Directors where he will contribute to the development of the combined business with his extensive industry knowledge and expertise. Long-time executive Ralf Greifzu, who has led global sales at AFC for seven years, will replace Friedrichs as vice president and general manager of AFC.

www.hyperionmt.com

Reifenhäuser Supports Rhine Clean-Up Day

For the second time in a row, volunteers in six countries joined together to collect garbage and waste along the River Rhine on September 14. To support this project, 100,000 sponsored garbage bags made from 100% recycled plastic waste were sent to key locations throughout Germany. From there, the bags were distributed to the teams participating in the cleanup.

The project organizers sent out a call to clean up the shores of the Rhine to prevent the garbage from being swept down the river to the North Sea. Last year, about 10,000 people joined the cleanup campaign and collected 100 metric tons of garbage. This time, the team wants to go one better – they aim to break the 200-ton mark. Since May, the initiative has already mobilized helpers in 100 districts on both sides of the Rhine.

A project of this size depends heavily on sponsors and local garbage disposal companies, either to equip the helpers or transport the garbage to waste disposal centers. "So, it was great news for us when Reifenhäuser signaled they wanted to back our project," says Lentz. The idea originated in 2018 during the Reifenhäuser Marine Litter project when Lentz first contacted Reifenhäuser employees with the request whether Reifenhäuser could donate sustainable garbage bags. The project soon took off thanks to Reifenhäuser's extensive network and the right partners. Following the company's initiative, the EREMA Group, Verpa Folie Weidhausen, and FVH Lobbe pledged their support. The result was 100,000 garbage bags made from 100% recycled post-consumer waste.

As a general rule, the use of virgin material is unavoidable in this type of application. Nonetheless, the four companies made good their pledges: FVH processed the recycling granulate from post consumer package waste on an EREMA line. Verpa extruded and printed the film on a Reifenhäuser Blown Film line and produced the bags. The action and good collaboration between the four companies made the RhineCleanUp even more sustainable than it already was as the helpers collect waste in garbage bags which previously served their purpose for packaging.

"The hands-on mentality which the RhineCleanUp stirred up on behalf of the environment and the numbers of those mobilized is remarkable," comments Ulrich Reifenhäuser, CSO of the Reifenhäuser Group. "We also tackle the issue of waste with responsibility. Recyclability is always a requirement when we develop new technologies. In the future, lines and machines that produce film and nonwoven will be capable of processing recycled plastic so that waste plastic is returned to the recycling economy - and does not end up in nature.

www.reifenhauser.com

Wolfgang Laures Joins Glatfelter

latfelter announced that Wolfgang Laures, Ph.D., has joined the company as senior vice president, Global Supply Chain, reporting to Dante C. Parrini, chairman & chief executive officer, effective September 16, 2019. In this newly established role, Laures will be responsible for leading Glatfelter's new integrated global supply chain organization that includes operations, sales and operations planning, strategic sourcing, network and transport distribution, and supply chain analytics.

"Wolfgang brings decades of rich experience to this newly created role, and he is well positioned to lead Glatfelter's efforts to enhance our global supply chain operations and deliver efficiencies throughout our business," Parrini says. "With the addition of Wolfgang, the company's senior executive team for the functional operating structure is now fully in place. I am excited to work with this group of leaders as we continue to transform Glatfelter into a more profitable, agile, and integrated engineered materials company."

Laures joins Glatfelter with more than 25 years of supply chain and operations-related experience. Most recently, he served as executive vice president, Global Supply Chain and Digital Transformation for Perstorp, a private equity-owned specialty chemicals innovator. Prior to joining Perstorp, he held supply chain and operations-related roles at Avery Dennison, McKinsey & Company and Procter & Gamble. Laures earned his Ph.D. in electrical engineering from The University of Duisburg-Essen in Germany.

Mark Smucker Joins K-C Board

Kimberly-Clark announced that Mark T. Smucker was elected to its board of directors, effective immediately.

"Mark will be a great addition to our board," says Thomas J. Falk, executive chairman of Kimberly-Clark."His marketing and innovation experiences leading The J.M. Smucker Company's portfolio of brands will be valuable in our board discussions."

Smucker serves as president and CEO of The J.M. Smucker Company (Smucker), and is the fifth generation of the Smucker family to lead the 122-year old company. The Smucker portfolio is comprised of America's best-known food brands, and its products can be found in 90% of U.S. households. Under his leadership, the company continues to capitalize on its deep understanding of consumer preferences to stay at the forefront of the dynamic packaged foods landscape, particularly in the categories of coffee, pet food and snacks.

In addition to the Smucker board, Smucker serves as a director of the Grocery Manufacturers Association and Greater Cleveland Partnership, an advisor on the LeBron James Family Foundation and Thunderbird Strategic Advisory Council, and a member of the Fortune CEO Initiative.

Lenzing Names Head of Corporate Communications and IR

Filip Miermans now heads the department of Corporate Communications & Investor Relations at Lenzing AG. In this capacity, he reports directly to Stefan Doboczky, chief executive officer of Lenzing. Miermans succeeded Waltraud Kaserer, who will continue to support Lenzing in the future in the field of public affairs.

Miermans has specialized knowledge and longstanding experience in communications and marketing. Before joining the Lenzing Group, Miermans served as head of Marketing & Corporate Communications for the Lower Austrian mechanical engineering company Lisec Austria GmbH since the year 2013. Previously he held management positions in marketing and communications at Miba AG, Heradesign (Knauf Insulation) and the Plansee subsidiary Ceratizit. Born in Belgium,

Miermans has lived in Austria for 20 years, and is the father of three children.

"We succeeded in attracting Filip Miermans, an experienced and skilled communications expert with a very high degree of personal integrity, to work for Lenzing. He will make a major contribution towards the ongoing implementation of the corporate strategy sCore TEN," says Doboczky.

Miermans, commenting on his new position at Lenzing, adds: "I very much look forward to the tasks awaiting me in a company in which sustainability is already embedded in its products. The fibers made of wood are biodegradable and compostable at the end of their life cycle. For me this is credible sustainability."

Owens Corning Elects Board Member

Owens Corning has elected Eduardo (Eddie) Cordeiro, former executive vice president, chief financial officer and president of the Americas region for Cabot Corporation, to its board of directors.

Cordeiro joined Cabot Corporation, a global specialty chemicals and performance materials company, in 1998 and worked there until he retired in 2018. During his 20-year tenure, he held several corporate, business and executive management positions, including vice president of corporate strategy and general manager of its Fumed Metal Oxides and Supermetals businesses. Prior to his career at Cabot, Cordeiro was a consultant with The Boston Consulting Group and a founding partner of The Economics Resource Group. He also has served on the Board of Directors of FMC Corporation, a global agricultural sciences company, since 2011 and chaired its Audit Committee since 2014.

Cordeiro holds both Bachelor of Arts in economics and Master of Business Administration degrees from Harvard University.

A look at recently issued patents

U.S. Patent No. 10,390,998

Process and Apparatus for Manufacturing an Absorbent Article Using a Laser Source: Uwe Schneider, Cincinnati, OH; Pablo Ibarrarazo, Liberty Township, OH; Klaus Eimann, Zellingen, Germany; Michael Joseph Page, Cincinnati, OH; and Bradley Edward Walsh, Cincinnati, OH. Assigned to The Procter & Gamble Company, Cincinnati, OH.

Filed: 11/6/15 Issued: 8/27/19

A method for manufacturing an absorbent article, the method comprising: advancing a discrete component on a carrier member; rotating a transfer member about a first axis of rotation; accepting the discrete article on the transfer member; advancing a first substrate, a second substrate, and one or more elastic strands toward a process member; receiving the second substrate on an outer circumferential surface of the process member, wherein the process member rotates about a longitudinal axis of rotation; attaching at least a portion of the one or more elastic strands to the first substrate; disposing the second substrate on at least a portion of the one or more elastic strands and the first substrate to form a belt assembly; advancing the belt assembly to a first laser source, where the first laser source imparts a line of weakness on the belt assembly; advancing the belt assembly including the discrete component to a trim removal apparatus, wherein the trim removal apparatus removes trim from the line of weakness forming a separation edge; advancing the belt assembly to a second laser source, wherein the second laser source severs a portion of the one or more elastic strands forming a gap in the elastic strands at an elastic gap location that is spaced apart from the line of weakness; and positioning the discrete component on a portion of the belt assembly.

U.S. Patent No. 10,390,999

Method and Apparatus for Manufacturing an Absorbent Article Including a Discrete Substrate Having a Rugosity: Ronald Herbert Helton, Cincinnati, OH; and Darrell Ian Brown, Mason, OH. Assigned to The Procter & Gamble Company, Cincinnati, OH.

Filed: 5/28/15 Issued: 8/27/19

A method for forming a substrate comprising a discrete substrate including a rugosity, the method comprising the steps of: providing a folding roll comprising a folding member and an outer circumferential surface extending between a first roll surface and a second roll surface, wherein at least one of the first roll surface and the second roll surface comprise an external vacuum portion, and wherein the folding member comprises a leading edge portion, a trailing edge portion opposite the leading edge portion, a groove portion between the leading edge portion and the trailing edge portion and a plurality of apertures disposed on at least one of the leading edge portion, the trailing edge portion, and the groove portion, and wherein the plurality of apertures are fluidly connected to the external vacuum portion; advancing a discrete substrate comprising a leading edge portion, a trailing edge portion opposite the leading edge portion, and a central portion between the leading edge portion and the trailing edge portion; associating the leading edge portion of the discrete substrate with the leading edge portion of the folding member by activating a first vacuum port of the external vacuum portion; associating the central portion of the discrete substrate with the groove portion of the folding member by activating a second vacuum port of the external vacuum portion, wherein the central portion folds down into the groove portion; associating the trailing portion of the discrete substrate with the trailing portion of the folding member by activating a third vacuum port of the external vacuum portion; advancing a substrate comprising a first substrate surface and a second substrate surface opposite the first substrate surface; and bonding the discrete substrate to at least one of the first substrate surface and the second substrate surface, wherein the discrete substrate bonded to the substrate forms a rugosity, wherein the groove portion is taken the same shape as the rugosity, and wherein the first, second, and third vacuum port are activated sequentially, wherein the folding member is removably associated with the folding roll.

U.S. Patent No. 10,391,000 Transport Device and Disposable Wearable Article Production Method Using Same: Hitoshi Sato, Osaka, Japan. Assigned to Zuiko Corporation, Osaka, Japan.

Filed: 5/6/16 Issued: 8/27/19

A transport device for transporting an object to a surface of a sheet, comprising: a delivery roller rotatable about a first rotational axis extending in a specific direction for transporting the object while holding the object on a circumferential surface thereof; and an intermediate transporter including a main section rotatable about a second rotational axis extending in parallel to the first rotational axis, and a holding pad mounted on the main section in such a way as to revolve about the second rotational axis according to the rotation of the main section, the holding pad receiving the object onto an outer surface of the holding pad from the circumferential surface of the delivery roller at a first revolution position where the holding pad faces the delivery roller, and delivering the object onto the sheet from the outer surface of the holding pad at a second revolution position, wherein: the outer surface of the holding pad includes a holding region for holding the object; the intermediate transporter includes a turning mechanism for turning the holding pad about a

turning axis perpendicularly intersecting the second rotational axis in the course of the movement of the holding pad from the first revolution position to the second revolution position; the holding region includes opposite skirt portions in a revolution direction of the holding pad each of which has at least opposite ends in the specific direction that extend along a first curve when the holding pad is at the first revolution position; the holding region includes a second area bearing on at least part of one side portion and at least part of the other side portion in the revolution direction of the holding pad, the second area extending along a second curve, when the holding pad is at the second revolution position; the first curve is on an arc of a circle centered on the second rotational axis in a view along the second rotational axis when the holding pad is at the first revolution position; the second curve is on an arc of a circle centered on the second rotational axis in a view along the second rotational axis when the holding pad is at the second revolution position; the circumferential surface of the delivery roller includes a delivery side holding region for holding the object; the delivery side holding region includes opposite side portions in the specific direction, each of the side portions having at least opposite ends in a rotational direction of the delivery roller, each end being formed with a first recess extending radially inward of the delivery roller, the first recess having a bottom surface whose intersecting line of a plane passing through the first rotational axis and the second rotational axis extends along the arc of the first curve in a view along the revolution direction of the holding pad, when the delivery side holding region and the holding region of the holding pad face each other.

U.S. Patent No. 10,391,001 Absorbent Article: Ai Iwasaki, Tochigi, Japan. Assigned to Daio Paper Corporation, Ehime, Japan.

Filed: 3/16/16 Issued: 8/27/19

An absorbent article comprising: an absorbent body provided between a liquid per-

meable topsheet and a backsheet, a convex portion of the absorbent body that is high toward a skin side being formed at a skin side surface of the absorbent body at a center portion in a width direction, wherein the convex portion includes a front convex portion designed to be provided at an area including a body fluid expelling portion of a wearer, a rear convex portion designed to be provided at an area including an intergluteal cleft of the wearer, and a constricted convex portion provided at an area connecting the front convex portion and the rear convex portion in a front-rear direction of the absorbent article whose both side edges are constricted toward an inner side, wherein the front convex portion is formed to be vertically long in the front-rear direction of the absorbent article, both side edges of the front convex portion being formed by linear lines extending in the front-rear direction of the absorbent article, a width of the front convex portion being the same over the entire length, the width of the front convex portion being 20 to 36 mm, wherein the rear convex portion is designed to be provided at an area from a start position of the intergluteal cleft of the wearer at a crotch side, in a rearward direction, to a position exceeding the intergluteal cleft, an end position of the intergluteal cleft or a middle position of the intergluteal cleft, a maximum width of the rear convex portion being 20 to 36 mm, the maximum width of the rear convex portion and the width of the front convex portion being the same width, and wherein both side edges of the constricted convex portion are formed by arc-shaped curves each having a center at outside in the width direction, an interface of the constricted convex portion with the front convex portion being provided at an area corresponding to a perineum portion of the wearer, a minimum width of the constricted convex portion being 10 to 20 mm, the length of the constricted convex portion in the front-rear direction being 45 to 75% of the length of the front convex portion in the front-rear direction.

U.S. Patent No. 10,391,002 Stretch Laminate, Method of Making,

and Absorbent Article: Todd Leon Mansfield, Cincinnati, OH. Assigned to The Procter & Gamble Company, Cincinnati, OH.

Filed: 3/4/16 Issued: 8/27/19

A stretch laminate comprising: (a) a first layer comprising an elastomer film, the first layer having a surface; (b) a second layer comprising a nonwoven material, the second layer having a surface that is attached to the surface of the first layer; and (c) a third layer comprising a nonwoven material, the third layer having a surface that is attached to the first layer on a surface opposite the second layer; wherein the first, second and third layers are bonded together by an attachment mechanism selected from the group consisting of heat bonding, pressure bonding, ultrasonic bonding, dynamic mechanical bonding and combinations thereof; and wherein the tensile behavior in the transverse direction of the stretch laminate is within about 2.5 N/cm of the tensile behavior in the transverse direction of the film at an engineering strain of about 1.5, and exists independent of mechanical activation.

U.S. Patent No. 10,391,003 Disposable Article, and Method for Producing and Method for Selling the Same: Kikuo Yamada, Shinagawa-ku, Japan.

Filed: 6/1/16 Issued: 8/27/19

A disposable article, comprising: an air permeable sheet having air permeability; a fiber sheet having liquid diffusibility; and an elastic member located between the air permeable sheet and the fiber sheet, wherein the air permeable sheet, the fiber sheet, and the elastic member are joined by applying an adhesive to a surface of the elastic member and then attaching the air permeable sheet and the fiber sheet to the elastic member while the elastic member is in a stretched state, and a transpiration rate of the disposal article determined by the equation:

Transpiration rate (%)= $\{(W0-Wt)/(W0-Wt)\}\times 100$, exceeds 40%, where

W is a weight of a test piece of the dis-

posal article and a petri dish under a standard condition of 20° C. and 65% RH, W0 is a weight of the test piece and the petri dish to which 0.1 mL of water is added, and Wt is a weight of the test piece and the petri dish measured after the 0.1 mL of water is added and left in the standard condition for 20 minutes.

U.S. Patent No. 10,391,005 Diaper Attachment System: Wolfgang E. Coronel, Macon, GA. Assigned to YKK Corporation, Japan.

Filed: 9/25/15 Issued: 8/27/19

A diaper comprising: an absorbent core; and a chassis surrounding the absorbent core, the chassis comprising: a first end and a second end, the first end comprising at least two tabs, wherein: each of the at least two tabs comprises a fastening portion, the fastening portion comprising a grip portion and a handle portion; each grip portion is configured to removably attach to a portion of the second end; each fastening portion comprises at least one cut portion extending through an entire thickness of the fastening portion; during disengagement of the fastening portion from the second end, the diaper is configured such that a peeling force resists detachment of the fastening portion from the second end before detachment of the fastening portion reaches a pair of end points of the at least one cut portion; and during disengagement of the fastening portion from the second end, the diaper is configured such that a shear force resists detachment of the fastening portion from the second end after the detachment of the fastening portion reaches the pair of end points of the at least one cut portion.

An attachment tab for use with a diaper comprising: a fastening portion comprising a handle portion disposed at a distal edge of the fastening portion and a grip portion; wherein the grip portion is disposed between the handle portion and a proximal edge of the fastening portion; wherein the grip portion is configured to removably attach to a second end; wherein the fastening portion comprises at least one cut portion extending through an

entire thickness of the fastening portion; wherein during disengagement of the fastening portion from the second end, the diaper is configured such that a peeling force resists detachment of the fastening portion from the second end before detachment of the fastening portion reaches a pair of end points of the at least one cut portion; and wherein during disengagement of the fastening portion from the second end, the diaper is configured such that a shear force resists detachment of the fastening portion from the second end after the detachment of the fastening portion reaches the pair of end points of the at least one cut portion.

U.S. Patent No. 10,383,774 Device for Producing Disposable Wearable Article and Method for Producing Disposable Wearable Article: Takao Wada, Osaka, Japan. Assigned to Zuiko Corporation, Osaka, Japan.

Filed: 9/22/14 Issued: 8/20/19

A device for producing a disposable wearable article, comprising: a doubling unit provided in a line for continuously conveying a sheet and configured to double the sheet together with an absorber such that opposite side edges of the sheet having the absorber arranged thereon are proximate to or overlapped with each other; a joining/cutting unit provided in the line and configured to join parts of the doubled sheet at opposite sides of the absorber and then cut the joined part; and a pressing unit arranged upstream of the joining/ cutting unit in a sheet conveying direction, the pressing unit including a pressing mechanism configured to press the doubled sheet together with the absorber in a thickness direction, wherein: the pressing mechanism includes a pair of pressing endless belts respectively provided at one surface side and the other surface side of the doubled sheet and each having a part for pressing the sheet and a holding mechanism configured to hold the pair of pressing endless belts such that the parts of the pair of pressing endless belts for pressing the sheet are movable in the sheet conveying direction; a minimum clearance between the parts of the pressing endless belts for pressing the sheet is set to be not larger than the sum of thicknesses of the doubled sheet and the absorber; lengths of the parts of the pressing endless belts for pressing the sheet are set at a length not shorter than an arrangement interval of the absorbers on the sheet; and one in the pair of pressing endless belts comprises a first inclined part inclined toward the other in the pair of pressing endless belts side from an upstream end to downstream of the one pressing endless belt in the sheet conveying direction and a second inclined part inclined toward the other pressing endless belt side from a downstream end of the first inclined part to a point where a clearance between the parts of the pressing endless belts for pressing the sheet is set to a minimum value, and an inclination angle of the second inclined part with respect to the other pressing endless belt is smaller than that of the first inclined part.

U.S. Patent No. 10,383,776

Tampon Assembly Having a Shaped Pledget: Keith Edgett, Middletown, DE; Patrick Gorham, Wyoming, DE; George Jarmon, Camden/Wyoming, DE; and Jessica LeMay, Portland, OR. Assigned to Edgewell Personal Care Brands, LLC, Chesterfield, MO.

Filed: 1/5/17 Issued: 8/20/19

A tampon assembly comprising: a barrel comprised of a single layer tubular wall and having a first end and a second end, the barrel having a cylindrical section located between the first end and the second end and a plurality of discrete petals at the first end that define a tapered insertion tip section that is elliptical in shape, the discrete petals being separated from each other by a plurality of cuts through the tubular wall, each of the plurality of cuts having a terminal end adjacent a base region of the plurality of discrete petals, the tapered insertion tip section extending a first length measured from the cylindrical section of the barrel to the first end of the barrel, the cylindrical section of the barrel being longer than the first length of the tapered insertion tip section, the tapered in-

sertion tip section having a first taper ratio defined as a radius of the barrel at the base region divided by the first length of the tapered insertion tip section, the first taper ratio being between 0.3 and 1.0, the barrel further including a plurality of protrusions oriented on an outer circumference of the tubular wall adjacent to the second end and extending radially outward away from the tubular wall, the barrel being comprised of low-density polyethylene; a pledget located within the barrel, the pledget having a cylindrical portion that is located within the cylindrical section of the barrel, the pledget having an insertion end region that has been compressed to form a tapered pledget tip, the tapered pledget tip having an outer radial dimension that is at least about 95% of an inner radial dimension of the insertion tip section such that the tapered pledget tip supports a portion of an inner surface area of the plurality of petals when the pledget tip is positioned adjacent the first end, the tapered pledget tip having a second taper ratio that is defined as a radius of the pledget at the cylindrical portion divided by a second length of the tapered pledget tip, the second taper ratio being greater than the first taper ratio, the tapered pledget tip fitting within the tapered insertion tip section and occupying at least about 50%, of the first length of the tapered insertion tip section of the barrel; and a plunger slidably received in the second end of the barrel and extending beyond the plurality of protrusions on the outer circumference of the tubular wall, the plunger moving through the cylindrical section of the barrel while expelling the pledget from the barrel.

U.S. Patent No. 10,383,777
Visually Perceptible Tampon Housed

within an Applicator: Widalys Luz De Soto-Burt, Cincinnati, OH; and Nanda Christine Almond, Walton, KY. Assigned to The Procter & Gamble Company, Cincinnati, OH.

Filed: 10/10/16 Issued: 8/20/19

A hygiene device comprising: a tampon comprising: a primary absorbent member comprising a leading end and a trailing end opposite the leading end, and an intermediate region between the trailing end and the leading end, wherein the primary absorbent member comprises a first tampon color and a first cross sectional area; a secondary absorbent member that is mechanically tied to the primary absorbent member, wherein the secondary absorbent member comprises a second tampon color and a second cross sectional area, and wherein the first cross sectional area is greater than the second cross sectional area; a withdrawal member disposed on at least one of the secondary absorbent member and the primary absorbent member and extending from the secondary absorbent member in a direction substantially parallel to a longitudinal tampon axis, wherein the withdrawal member comprises a third tampon color; and an applicator housing the tampon, the applicator comprising: an insertion portion that includes an opaque region; a plunger operatively engaged with the insertion portion, the plunger comprising: a first component comprising a transparent region sized such that both of the secondary absorbent member and the withdrawal member are visually perceptible through the first component; a second component slidably engaged with the first component, and wherein the first component comprises a lip, wherein the second component comprises a projection capable of engaging the lip such that the first component and the second component may be removably locked to one another.

U.S. Patent No. 10,383,778 Wearable Article Having Artwork: Koichi Morimoto, Beijing, China; Ling Tong, Beijing, China; Chunmin Cheng, Beijing, China; and Hui Liu, Beijing, China. Assigned to The Procter & Gamble Company, Cincinnati, OH.

Filed: 8/26/15 Issued: 8/20/19

A wearable article continuous in a longitudinal direction and a transverse direction comprising: a main body comprising an outer cover nonwoven layer at the most garment-facing side and a backsheet attached to the skin-facing surface of the

outer cover layer; and a ring-like elastic belt comprising a front belt and a back belt; the center of the front belt is joined to a front waist panel of the main body, the center of the back belt is joined to a back waist panel of the main body, the front and back belt each having a left side panel and a right side panel where the main body does not overlap, and the transverse edges of the front belt and the back belt are joined by a seam to form a waist opening and two leg openings, the main body having a crotch panel which is not joined to either the front belt or the back belt; each front belt and back belt having transversely continuous proximal and distal edges, the proximal edge being located closer than the distal edge relative to the longitudinal center of the article, each of the front belt and back belt each comprise an inner nonwoven sheet and an outer nonwoven sheet, wherein the backsheet comprises printing for providing: a main artwork observable from the garment-facing side of the article, the main artwork existing in the vicinity of the proximal edge of the central panel of at least one of the front and back belts, the main artwork extending from at least one of the front and back central panels into the crotch panel; the main artwork comprising a belt area artwork printed on a first surface of the backsheet and displayed on the central panel and a crotch area artwork printed on the first surface of the backsheet and displayed on the crotch panel; wherein when the opacity of the outer cover layer is L1; the total opacity created by the outer cover nonwoven layer, the inner nonwoven sheet, and the outer nonwoven sheet, combined in the central panel overlayed on the garment facing side of the backsheet is L3; L3-L1=Lg; and Lg is about 28% or less, wherein the opacity of the outer nonwoven sheet and inner nonwoven sheet combined is L2, and L1 is greater than L2, and wherein a number of nonwoven layers between the belt area artwork and an outermost article surface portion overlying the belt area artwork is different than a number of nonwoven layers between the crotch area artwork and an outermost article surface portion overlying the crotch area artwork.

Upcoming industry events

October

Oct. 8-11

Fabric Property Development and Characterization

Location: Raleigh, NC

Venue: The Nonwovens Institute, NC State University

Contact: INDA Phone: 919-459-3726 Email: info@inda.org Website: www.inda.org

Oct. 9-11 Outlook 2019

Location: Athens, Greece **Venue:** InterContinental Hotel **Contact:** Delphine Rens

Email: delphine.rens@edana.org

Website: www.edana.org

Oct. 15-18

Intermediate Nonwovens Training Course

Location: Cary, NC

Venue: INDA Headquarters

Contact: INDA Phone: 919-459-3726 Email: info@inda.org Website: www.inda.org

Oct. 16-17

Nonwovens Innovation Academy 2019

Location: Denkendorf, Germany

Venue: Deutsche Institute für Textil- und Faserforschung

Denkendorf

Contact: Anaelle Schutz

Email: anaelle.schutz@edana.org

Website: www.edana.org

November

Nov. 11-14 Hygienix

Location: Houston, TX

Venue: Hyatt Regency Houston

Contact: INDA Phone: 919-459-3700 Website: www.inda.org

Nov. 18-19

EurAsian Geosynthetics Symposium

Location: Beijing, China **Venue:** Regent Hotel **Contact:** Anaelle Schutz

Email: anaelle.schutz@edana.org

Website: www.edana.org

Nov. 19-21

Absorbent Hygiene Training Course

Location: Cary, NC

Venue: INDA Headquarters

Contact: INDA Phone: 919-459-3726 Email: info@inda.org Website: www.inda.org

Nov. 20-23

Vietnam International Textile & Garment Industry Exhibition

Location: Ho Chi Minh City, Vietnam

Venue: Saigon Exhibition and Convention Center

Phone: +886-2-26596000 Email: textile@chanchao.com.tw Website: www.vtgvietnam.com

December

Dec. 3-5

Product Development and Innovation Course

Location: Raleigh, NC

Venue: The Nonwovens Institute, NC State University

Contact: INDA Phone: 919-459-3726 Email: info@inda.org Website: www.inda.org

Dec. 11-13 SINCE 2019

Location: Shanghai, China

Venue: Shanghai World Expo Exhibition and Convention Center

Contact: Cathy Li
Email: cathy.li@ubm.com
Website: en.since-expo.com

Send your calendar listings to nonwovens@rodmanmedia.com

ALLSTATES TEXTILE MACHINERY, INC.

Buying & Selling USED machinery for fiber manufacturing, nonwovens, & recycling since 1967.

View equipment & photos at

www.allstatestextile.com

Tel: 864-847-7757 *** Fax: 864-847-7513 Email: info@allstatestextile.com

NONWOVENS RECRUITING

Kimber McFadden General Manager / Nonwovens & Industrial Textiles 303-225-0355

Kimber@rushandcompany.com

www.rushandcompany.com



NONWOVENS INDUSTRY SINCE 1970

Classified Advertising

Classified advertising in Nonwovens Industry is a quick, easy way to keep a message in front of thousands of key customers globally. Low cost, classified ads deliver specific ideas about you to the market, helping you be "at the right place at the right time" when someone important is in need.

Pricing

Per Column inch \$100 Per Column inch 6x \$95 Per Column inch 12x \$90 2 color add \$65/inch 4 color add \$120/inch * classified rates are non-commissionable

Ad Materials

Most classified ads are text based, with minor graphics (logo, background). In this case, we will be happy to compose your ad from supplied text and high resolution image file. You may also compose and save your classified ad to our specifications. Column width is 55 mm.

LOW PRICE & HIGH QUALITY

- ~ Spunlace for Wet & Dry Wipes
- ~ Domestic SS & SMS for Medical Markets
- ~ Spunbond PET for Liquid & Air Filtration

Expand your sales globally!

GNI SPECIALIZATION - NONWOVEN SUBSTRATES

- Develop new global customers for your product. Expand your sales to more countries.
- Set-up distribution in your new markets, assist in customer service, shipping and financing.
- Need a better source for nonwovens? Call us today.
 We are in contact with all major global raw material producers
- Need to sell excess material: Aged inventory, by-products, or off-spec grades?
 Let us turn this material into revenue quickly!

Visit our website today for current inventory & materials wanted: www.GlobalNonwovensIntl.com

Polyester Spunbond - BICO, flat bond trilobal: For Air, Pool (liquid) Filtration, Dryer Sheets

TARGET MARKETS

Wipers, Furniture & Bedding, Filtration, Landscape, Roofing, Carpet Backing & other specialty products.



(+1) 508-751-9200 sales@globalnonwovensintl.com ken@globalnonwovensintl.com

POSTAL SERVICE *	127	Natio	allian.	Navistan	÷				2. Fling Date
Nonwovens Industry							0	September 26, 2019	
Monthly		Number of Issues Platested Annually 12						\$75.00	
 Complete Nating Address of Known Office of Publication Phillips Pkwy., Ste.200, Montvale 						29%	en.		Richard DeVoto
25 Philips Pkwy., Ste.200, Montvale		iber d	Not a	vrteri)					
 Full Names and Complete Making Addresses of Publish Publisher (Name and complete making address) 	er, Editor, and Manager	g tros	or (C)	o med and	He	dian	ų		
Matt Carey, 25 Philips Pkwy., Ste.2	200, Montvale, N	IJ, C	764	15					
Karen McIntyre, 25 Philips Pkwy., S	Ste.200, Montva	le, N	۱J, (0764	5				
Managing Editor (Name and complete mailing address)									
 Owner (Do not leave Mank. If the publication is covered names and addresses of all absolute/deep serving or his covers and addresses of the individual everys. If owner path individual every. If the publication is published by 	Alting it persent or received by a partnership or of each open street or common to the	of the ther is n. 1914	Sonte Singas r de n	arround porafed gove an	t or r fi	ration res. ga editre	e its o	Design	ed by a corporation, give the
Rodman Media Corp. Rodman J. Zilenziger, Jr. James R. Zilenziger	sing it served or more of by a partnership or	5 Ph 5 Ph 5 Ph	ilips ilips	Pkw Pkw Pkw	/y /y	., Si	e.20 e.20	10, 0, 1	Montvale, NJ, 07645 Montvale, NJ, 07645 Montvale, NJ, 07645
Rodman Media Corp. Rodman J. Zilenziger, Jr.	alting if per received or received or received by a particularity or or or or or or received or or or received or	5 Ph 5 Ph 5 Ph 5 Ph	ilips ilips ilips	Pkw Pkw Pkw Pkw	yy yy yy	., Si ., Si ., Si	e.20 e.20 e.20	10, 11 10, 11 10, 01	Montvale, NJ, 07645 Montvale, NJ, 07645
Rodman Media Corp. Rodman J. Zilenziger, Jr. James R. Zilenziger Claire R. Zilenziger	25 25 25 25 26 26 26 26 26 26 26 26	5 Ph 5 Ph 5 Ph 5 Ph 5 Ph	ilips ilips ilips ilips	Pkw Pkw Pkw Pkw Pkw	yy yy yy yy	., Si ., Si ., Si	e.20 e.20 e.20 e.20	10, I 10, I 10, I 10, I	Montvale, NJ, 07645 Montvale, NJ, 07645 Montvale, NJ, 07645 Montvale, NJ, 07645
Rodman Media Corp. Rodman J. Zilenziger, Jr. James R. Zilenziger Claire R. Zilenziger Katherine M. Zilenziger Anna G. Zilenziger	25 25 25 26 26 26 26 26 26 26 26 26	5 Ph 5 Ph 5 Ph 5 Ph 5 Ph	iilips iilips iilips iilips iilips	s Pkw s Pkw s Pkw s Pkw s Pkw	yy yy yy yy	., Si ., Si ., Si ., S	e.20 e.20 e.20 e.20 e.20	10, I 10, I 10, I 10, I 100, I	Montvale, NJ, 07645 Montvale, NJ, 07645 Montvale, NJ, 07645 Montvale, NJ, 07645 Montvale, NJ, 07645 Montvale, NJ, 07645
Rodman Media Corp. Rodman J. Zilenziger, Jr. James R. Zilenziger Claire R. Zilenziger Katherine M. Zilenziger Anna G. Zilenziger	saling I previously or recom- ordy a partnership or of p a monamelif organization con- cept of the previously of the 25 25 25 25 25 26 26 26 27 28 28 28 28 28 28 28 28 28 28 28 28 28	5 Ph 5 Ph 5 Ph 5 Ph 5 Ph	iilips iilips iilips iilips iilips	Pkw Pkw Pkw Pkw Pkw Pkw	yy yy yy yy yy	., Si ., Si ., Si ., Si ., S	e.20 e.20 e.20 e.20 e.20	10, I 10, I 10, I 10, I 100, I	Montvale, NJ, 07645 Montvale, NJ, 07645 Montvale, NJ, 07645 Montvale, NJ, 07645 Montvale, NJ, 07645 Montvale, NJ, 07645
Rodman Media Corp. Rodman J. Zilenziger, Jr. James R. Zilenziger Claire R. Zilenziger Katherine M. Zilenziger Anna G. Zilenziger	saling I previously or recom- ordy a partnership or of p a monamelif organization con- cept of the previously of the 25 25 25 25 25 26 26 26 27 28 28 28 28 28 28 28 28 28 28 28 28 28	5 Ph 5 Ph 5 Ph 5 Ph 5 Ph	iilips iilips iilips iilips iilips	Pkw Pkw Pkw Pkw Pkw Pkw	yy yy yy yy yy	., Si ., Si ., Si ., Si ., S	e.20 e.20 e.20 e.20 e.20	10, I 10, I 10, I 10, I 100, I	Montvale, NJ, 07645 Montvale, NJ, 07645 Montvale, NJ, 07645 Montvale, NJ, 07645 Montvale, NJ, 07645 Montvale, NJ, 07645
Rodman Media Corp. Rodman J. Zilenziger, Jr. James R. Zilenziger Claire R. Zilenziger Katherine M. Zilenziger Anna G. Zilenziger	saling I previously or recom- ordy a partnership or of p a monamelif organization con- cept of the previously of the 25 25 25 25 25 26 26 26 27 28 28 28 28 28 28 28 28 28 28 28 28 28	5 Ph 5 Ph 5 Ph 5 Ph 5 Ph	iilips iilips iilips iilips iilips	Pkw Pkw Pkw Pkw Pkw Pkw	yy yy yy yy yy	., Si ., Si ., Si ., Si ., S	e.20 e.20 e.20 e.20 e.20	10, I 10, I 10, I 10, I 100, I	Montvale, NJ, 07645 Montvale, NJ, 07645 Montvale, NJ, 07645 Montvale, NJ, 07645 Montvale, NJ, 07645 Montvale, NJ, 07645
Rodman Media Corp. Rodman J. Zilenziger, Jr. James R. Zilenziger Claire R. Zilenziger Katherine M. Zilenziger Anna G. Zilenziger	adag favored or request of the control of the contr	5 Ph 5 Ph 5 Ph 5 Ph 5 Ph	iilips iilips iilips iilips iilips x	S Pkw S Pkw S Pkw S Pkw S Pkw	yy	., Si ., S ., Si ., S	e.20 e.20 e.20 e.20 e.20	10, I 10, I 10, I 10, I 100, I	Montvale, NJ, 07645 Montvale, NJ, 07645 Montvale, NJ, 07645 Montvale, NJ, 07645 Montvale, NJ, 07645 Montvale, NJ, 07645

		employer requests, active time's proof capies, and excito	ne/nete subscriptions, rege inquies)		
Outsider the Mail	(3)	Sales Through Dealers and Carriers, Blood Vendors, C. Sales, and Other Faid or Requested Distribution Outside	surfer LUSPOT		
	(4)	Requested Copies Distributed by Other Moll Classes Thoroug, Pirst-Class Mail*).	vough the USPS	34	38
e. Total Park another Requested Consistion (Sum of 166 (U, (2), (3), and (4))				5710	5615
Custade County Noticesqueted Custees (Materi on PS Farm 1941 of other Sample varies; Presumets Over 3 years old, Presumets anyone by a Phresion; Dull, Sales and Preputate Anoldony Association Propulation, Names obtained from Business (Directories; Lists, and other sources)		ests insluced by tion Requests:			
d. Hones- quested Distribution (Dy Mail and	(3)	In-County Namesusetted Copies Stated on PS Fore 35 Sensels cottes. Properties Over 3 years old. Properties Premium, Bulk Sales and Regises's Including Associatio States additional States Directories, Lists, and of	1147	1179	
Dutake the Melf	ch	Nonrequested Copies Distributed Through the USPS by Mail (e.g., First-Class Mail, Appreciate Copies mailed Limit resided at Standard Mail" or Package Services Nat			
	(4)	Nonnequested Copies Distributed Dutside the Well (focts Trade Shows, Shoerparks, and Other Sources)			
# Total No.	reque	elect Distribution (Slure) of 1.5er (1), (3), (3) and (4)		1147	1179
f. Total Die	rindo	n Claim of the and el	•	6857	6794
g. Copies to	d Dies	Bulled (See Pathactions to Publishers 64, gaige 83))	•	234	226
h. Yold (Sa	n at t	Stand gl		7091	7020
Percent P	hid or	dfor Requested Circulation forms 1509	>	83.3%	80.09
). Total circ	ulatio	includes electronic copies. Report circulation on PE Fo	orm 3526-X worksheet.		111
7. Publication of laster of this p		rreent of Ownership for a Requester Publication is required size.	and will be pented in the .	Octobe	r 2019
t. Digneture on	10	Audience Developn	nent Manager		9/26/19
settly that all ist on or who only endions (include is from 3526-8	reader	on furnished on this flam is true and complete. Lunderstee is or information sequenced on the form may be subject to peraffice).	nd that anyone who turnide original sentions (include	ns fiction or minimalities og finnes and impriso	g information on nment) and/or of

Nonwovens Industry

Extent and Nature of Circulation

September 2019

7020

7091

5675

PS FORM 1926 WORKSHEET			
Pyec are using PS Ferm 3826 and clabeling electronic copies complete below: Point Electronic Copies.			
Trial Paid Print Copies June 1901 - Paid Electronic Copies	-	_	
: Total Print Distributor (Line 197) + Poid Decronic Copies			
E. Percent Poid (Birth Print & Electronic Copies)			
C Cortify that 50% of all ray skeldinded copies (Skectronic & Print) are paid above a re-	reinal pric		
our skiewich soviet and it is			
PS FORM 1926-R WORKSHEET If you are using PS Form 1926-R and claiming electronic ougles complete below.			
s. Requested and Pold Electronic Copies.	-	5780	5804
Total Requested and Poid Poid Copies (Line 190) • Requested Poid Decisions: Copies		11490	11419
s. Total Requested Copy Distribution (Line 15F) + Respiested Paid Electronic Copies		12637	12598
E. Percent Poid sector Requested Groundon (Barb Print & Electronic Copies)	-	90.9%	90.6%
I Cartify that 58% of all my distributed copies (Electronic & Print) are legitimate re-	adents.		



Company Name	Page No.	Website
A. Celli Nonwovens	3	www.acellinonwovens.com
Aplix	15	www.aplix.com
BMP Worldwide	31	www.bmpworldwide.com
Canopus Wet Wipes	33	www.canopuswetwipes.com
Connecticut Clean Room Corporation	32	www.ctcleanroom.com
Converted Products Inc.	37	www.convertedproducts.com
Cotton Inc.	11	www.cottoninc.com
E&T Converters	32	eandtconverters.com
E.J. Krause & Associates	20	www.andtex.com
Edelmann Technology GmbH & Co. KG	9	www.edelmann-technology.com
Elsner Engineering Works Inc	29	www.elsnereng.com
Fameccanica.Data SpA	Cov. 2	www.fameccanica.com
Fox Converting	36	www.foxconverting.com
GDM SpA	Cov. 4	www.gdm-spa.com
Heng Chang Machinery Company, Ltd.	19	www.aqhch.com.cn
International Knife Industrial Co., Ltd.	47	www.intknife.com
Kansan A.S.	23	www.kansanmak.com
National Wiper Alliance	27	www.nationalwiper.com
Paksis	13	www.paksis.it
Quanzhou Hanwei Machinery Manufacturing Co., Ltd.	49	www.han-wei.com
Schobertechnologies GmbH	21	www.schobertechnologies.de
Shandong TaiPeng ECO-Material Co., LTD	51	www.sdtaipeng.com
Shemesh Automation UK	7	www.shemeshautomation.com
Teknoweb Converting s.r.l.	17	www.teknowebconverting.com
The LYCRA Company	Cov. 3	hyfit.lycra.com
Tufco Industries Inc.	35	www.tufco.com
Union SpA	5	
Welspun India Ltd	55	www.welspunindia.com
Xiamen Gachn Machinery Co. Ltd.	53	www.gachn.com
Xingshi Equipments Co., Ltd	25	www.xingshi.com.cn



Netkanika

123242, Moscow, Zamorenova, 5A Russia +7 (495) 228-80-08 info@netkanika.com www.netkanika.com





etkanika is one of the largest nonwoven producers in Russia. Owned by Invasta, a Russian private equity firm, Netkanika's manufacturing facility is located in the southern part of Moscow. The company runs state-of-the-art Reicofil 3 and Reicofil 4 lines and plans to expend its production capacity and widen its product portfolio to match growing demand for nonwoven materials used in baby diapers, adult incontinence and feminine hygiene products.

"We believe strongly in the nonwovens business in Russia," says Andrey Zimin, CEO of Netkanika. "We have a state-of-the-art production facility and professional team focused on operational excellency, development of R&D expertise to ensure that our customers benefit from the product and services we offer and the joint innovation and synergies that this combination brings."

The existing production capacity of Netkanika is about 20,000 tons of nonwovens per year. The company aims to expand, focusing on manufacturing state-of-the-art spunbond

and spunmelt nonwovens.

About 70% of its sales are within the global hygiene market while the remaining 30% are split between construction, medical and agriculture.

By region, Netkanika's largest markets are Russia and the Eurasian Customs Union countries, with Russia comprising about 84% of sales, and Eastern Europe, 16% of sales in 2018. Early this year, SIBUR and Netkanika signed a strategic cooperation agreement aimed at facilitating the export of polypropylene nonwoven materials produced by Netkanika. Collaboration with a leading local petrochemical company makes Netkanika quite competitive outside of Russia, the company says.

In August 2019, Netkanika received the ISO 9001:2015 certificate for its Quality Management System. The company also announced the start of ANSI/ISA-95 standard implementation for the state-of-the-art laboratory information management and manufacturing execution systems.



Interested in insights, fiber technologies, and processes for enhanced sustainability? Discover more about The LYCRA Company's Planet Agenda and our sustainable solutions at **hyfit.lycra.com**

SB50 GO, Efficiency packed

GDM unveils the latest machine in the packaging family





Flexibility - wide range of packages



Quick size change and ergonomic design



Intuitive and easy to use HMI



Local customer service available

SB50 GO WORLD PREMIERE

during GDM China Days in Suzhou from Oct. 28th to Nov. 1st Don't miss the opportunity, contact michael.sun@coesia.com or call +86 18051115091 to join

www.gdm-spa.com

