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Focusing on Technical Textiles, Nonwovens & Composites
BCH Newsline
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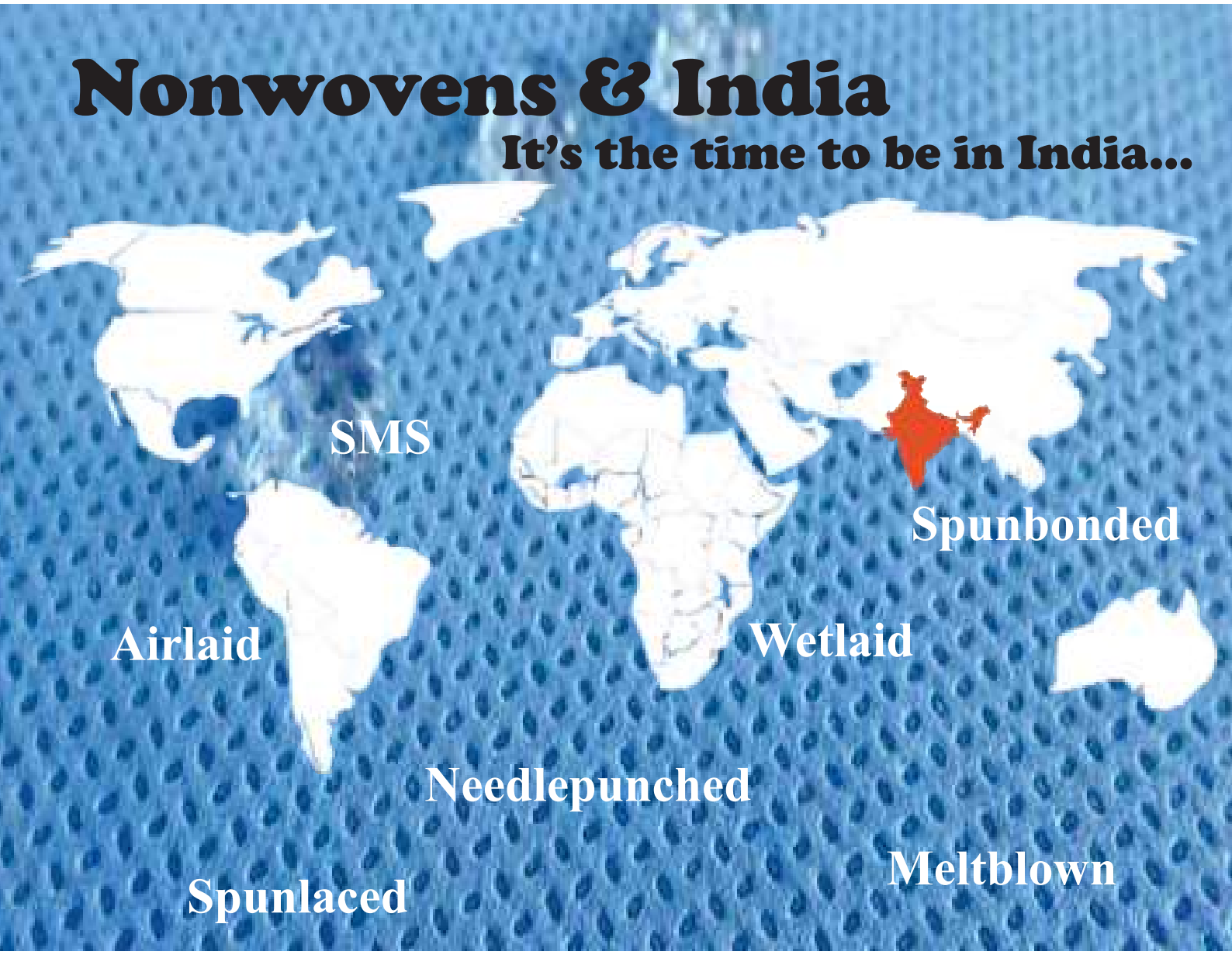
Nonwovens & India

It's the time to be in India...



From the MD's Desk

Mr. Samir Gupta, MD, BCH

> *Amongst the BRICS economies, India is the only country which has shown signs of strong growth amidst the several economic and political turbulences of the world. For sure, it is now the time to be in INDIA*

2017 could surely be India's breakout year for policy making. Whether it is the ushering in of GST, the curbing of black money through demonetization, chalking out of long term plans or simply the changing of the way 'things were' to the way the 'things should be', the policies all seem to be falling in place. The Modi government's great emphasis on economic and social reforms is being taken up very well by the masses. Uttar Pradesh, one of the largest states in the country has given a clear mandate to the current government during the recently held state assembly elections. This indeed was a historic victory which endorsed the public opinion in favour of the working of the Modi government. Amongst the BRICS economies, India is the only country which has shown signs of strong growth amidst the several economic and political turbulences of the world. For sure, it is now the time to be in INDIA.

This issue of the BCH newsline lays a lot of stress on the nonwovens industry of India and correspondingly throws light on the disposable hygiene segment too. If numbers are anything to go by, then currently in India, the market penetration levels are 24% for feminine hygiene products, 8% for baby diapers and 1% for adult diapers. Taking conservative CAGR figures of 17%, 20% and 40% respectively, it's clear that the disposable hygiene market in India, which has largely been underpenetrated, is now fast growing and turning out to be a destination of major interest for industry players all across the globe.

On the other side, all stakeholders of the nonwoven industry are looking forward to the INDEX show to be held in Geneva. There is great enthusiasm and vibrancy in the air as new technological developments will unfold at the show. We also will be there at INDEX and look forward to fostering existing as well as new relationships within the industry.
We at BCH are also planning a unique 3-day event this year dedicated to the disposable hygiene industry and strive to make it the ultimate platform for all the stakeholders of this industry. The event will end with a workshop on best manufacturing practices in the disposable hygiene area to support the existing and new entrants to get a better understanding of the industry.

Please do reserve the dates of 6th to 8th December 2017 'to be' in India.

Wishing you an eventful year and looking forward to meeting you at INDEX in Geneva.

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Nonwovens & India

It's the time to be in India...

Nonwovens & India

Mr. Samir Gupta
MD, BCH

India, with a population of 1.3 billion people and a booming economy, has become a hot investment destination for all across the globe including the Indians. This is a fact which cannot be denied and all statistical data is there to support it. What is interesting is, that with a stable government at the centre and policy reforms taking place with the long term picture in mind, the trust in India is becoming firmer and stronger as compared to before. The Ministry of Statistics and Programme Implementation of India has said that the growth in GDP during 2016-17 is estimated at 7.1% and the growth in manufacturing is expected to be at 7.4%. The Gross Domestic Product (GDP) at current prices for the year 2016-17 is likely to attain a level of Rs 152. 51 lakh crore (USD 2.3 Trillion). The increase in working women population, literacy rates, standard of living and overall awareness about practically 'everything' is fueling this growth by complementing the government's efforts towards infrastructure and overall economic & social development. As per the data announced, the per capita net national income, (current prices) a gauge for measuring living standard during 2016-17 is estimated to be Rs 1,03,007 (USD 1585) showing a rise of 10.4% as compared to Rs 93,293 (USD 1435)during 2015-16.

The nonwovens production in India started many decades ago in the 1970s and was limited to nonwovens made from stable fibres through old and conventional methods. Manufacturing of spunmelt nonwovens in India started way back in 1996 by two companies which got into manufacturing of PP Spun bonded Nonwoven Fabrics. They were PVD Plast Mould (now Fiberweb India) and Unimin India both of which brought the German Reifenhauser –Reicofil technology to India. Gradually awareness started growing in various application areas. The basic mind set of the Indian society was to wash & wear and did not believe in the use & throw – disposable mentality. But as the local labour started becoming expensive and disposable product usage started seeming convenient and cheap, the nonwoven disposable industry started growing. In the durable sector too, the industry has started showing signs of good growth as the country is moving from a developing to a developed one.

This was just the start of a new era basically known as the 'nonwoven fabric era' in India. Nonwovens with lower gsms and spunmelt fabrics of different configurations came into play. Quality consciousness started playing a big role in product offerings. Subsequently, some companies ventured into the Spunlacing technology . The Needlepunched nonwovens market grew with the growth of the automotive, geotextiles and filtration industries. In the last fifteen years many different type of nonwoven plants with different bonding technologies have come up in India and the growth has been phenomenal. **In 2016 India produced 365000 tonnes of nonwovens witnessing a growth of 17% over the previous year.** Most of the tonnage today is going into low end, cost competitive products constituting of shopping bags, carpets and backings. But now with a consistent growth showing up usage in automotives, filtration, geotextiles and the medical and hygiene sector, the growth will escalate in value terms too. Another important consideration to factor in, is the imports of end products made of nonwovens. Sooner now this import substitution is bound to take place with good times in Indian manufacturing.

The Indian nonwoven industry is expected to register consistent growth in the next few decades and with the increase in disposable incomes and good policies there is surely going to be a positive dominos effect on all areas of consumption. We at BCH have been closely associated with the nonwoven industry over the last decade and strongly feel that India defies many world norms for e.g. linking growth in consumption to the attainment of a certain level of per capita income or penetration rates etc. Indian market thus needs a different and a fresh perspective to analyse future growth in nonwovens along with tailored strategies to be successful in this market. With a huge land mass area and a vibrant and big population there is enough food left for thought for the growth of the Indian nonwoven story.

"India defies many world norms for e.g. linking growth in consumption to the attainment of a certain level of per capita income or penetration rates etc. Indian market thus needs a different and a fresh perspective to analyse future growth in nonwovens along with tailored strategies to be successful in this market. With a huge land mass area and a vibrant and big population there is enough food left for thought for the growth of the Indian nonwoven story."

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Cover Story

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We can see that Nonwoven Industry has really grown big in India and is scaling new heights and we wish the best for it to grow larger. Let us read further the views of stalwarts from the Indian nonwoven industry across various technologies on their vision for India.

Nonwovens

Mr. Pravin V Sheth.
Chairman & Managing Director
Fiber web India Ltd.

BCH: Being one of the pioneers of the nonwoven industry, what are your views on the past versus the present situation of the Indian market for the nonwovens?

PVS: We were the first to bring a spunmelt nonwoven production line in India in the year 1995. Our Machinery, the Reicofil II is from the world's renowned German company Reifenhäuser Reicofil Gmbh. We are a 100% EOU unit and being a quality producer we were able to export our goods from the very first year. Domestically we supplied to Johnson & Johnson India Ltd. and other customers. The production was started in April 1996 and the initial few years were really of great trouble. With great efforts and hard work we established ourselves also in the international market. Our exports are mainly to the USA to the tune of about 80% and to Europe and UK about 10% and the balance 10% is to Australia/ New Zealand/ South Africa and Middle East. As compared to 1996 there is very good awareness and understanding of P P Spunbond Nonwoven Fabrics now in India. The use of these fabrics has also widened greatly in many fields. There is very good demand in India as well as internationally and the demand is increasing at about 15% every year.

BCH: How do you see the Indian Market movement when compared to the developed world for the Nonowovens? Where lie the challenges?

PVS: As informed above, the Indian market has made a steady progress over years and there is good increase in demand every year. As compared to the world our per capita consumption is very low and is expected to rise at a greater speed on account of progress happening in every field. Particularly in the hygiene products like sanitary napkins and baby diapers the consumption is increasing at a good speed. There is still a lot of scope in the agricultural field. Due to ownership of small land holdings and poverty and lack of education, the farmers are unable to take advantage of the benefits of the nonwoven products. As done in the Middle Eastern countries, our government needs to help the farmers by way of giving subsidies and spreading awareness.

BCH: What does the future hold for the nonwovens industry of India?

PVS: The nonwoven industry has great future internationally and in India. We have made a good beginning and also there is likely to be further progress year after year. I certainly feel that the agrotextiles sector will really grow if there is good support from the government. The Indian government has scheme for promoting technical textiles and therefore the future seems very bright.

> ***"The nonwoven industry has great future internationally and in India. We have made a good beginning and also there is likely to be further progress year after year."***

Needlepunched Nonwovens

BCH: What are your views on the present situation of the Indian market for the Needlepunched technology?

MK: Needle Punching is definitely the most widely used Technology in India. However, there is extremely little innovative work being done. Everyone doing same thing will not grow the business.

BCH: What applications are mostly prevalent in the Indian market?

MK: Applications prevalent in the Indian market for needlepunch nonwovens are primarily limited to Automotives, Geotextiles and Dust Filter Media.

Mr. Mohan Kavrie
Managing Director
Supreme Nonwovens Pvt Ltd

BCH: What are the innovations/market changes/developments or future trends that will be seen in this industry in the coming years for Needlepunching by 2020?

MK: Not much expected until there is a change in mindset. Today it is a case of copy the leader and compete on price and not quality.

> ***"Needle Punching is definitely the most widely used Technology in India. However, there is extremely little innovative work being done."***

contd...

Cover Story

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Markus Müller,
Sales Director,
Reifenhäuser REICOFIL
GmbH & Co. KG

"To describe the spunmelt nonwovens growth in India, I would say it has been rather slow than expected especially in the value added segments. Reasons could be many. Sometimes it is good to take a step back and analyze what is really needed. This is exactly what we at Reicofil have done. To venture into emerging markets what is presently needed by the stakeholders is low investment risk, moderate capacities and absolute top quality product offerings. We have tried to address these concerns in a different 'Smart' way through a newly designed Reicofil Line. During the upcoming Index show Reicofil will present their new 'Smart' concept, which is the perfect fit for future markets:

- 10,000 t Max. Annual Capacity
- 7,200 h/a guaranteed Production
- State-of-the-art RF Quality
- 400/600 m/min max. Speed
- Low Total Investment Risk"

Markus Müller, Sales Director, Reifenhäuser REICOFIL GmbH & Co. KG

"The worldwide spunlace market has grown over the past few years and this trend is driven by the commodities market such as wipes applications. Today in India more and more people have access to these convenience and care uses due to the increase in living standards. In addition, India is ideally located to serve both Asian and European markets. ANDRITZ Nonwoven is pleased to support Indian spunlace producers in their future investments thanks to its expertise and experience in spunlace industry."

André Michalon, Sales Director, ANDRITZ Perfojet

André Michalon
Sales Director,
ANDRITZ Perfojet

Wetlaid Nonwovens

Mr. GK Natesh
Director Technology
H&V Advanced Materials
(India) Pvt. Ltd.

BCH: What are your views on the present situation of the Indian market for the Wetlaid nonwoven technology?

GKN: The future for Wetlaid technology looks promising mainly in the field of filtration, battery separators, medical apparel, wipes and highly specialized applications requiring engineered fibers and advanced process technology.

BCH: How do you see the Indian Market movement when compared to the developed world for the Wetlaid nonwovens? What applications are mostly prevalent in the Indian market?

GKN: The Indian market for wetlaid nonwovens is expected to follow the path of the western world though in a relatively smaller scale. India is fast catching up in terms of both technology and performance. Heightened levels of environmental awareness, as witnessed by the compressed time frame to implement BS VI norms and improve air quality in our major cities are clear indicators for the need for higher performing filtration materials which makes it the one of the fastest growing segments along with facial wipes.

BCH: What are the innovations/market changes/developments or future trends that will be seen in this industry in the coming years for Wetlaid nonwovens by 2020?

GKN: Adaptation of some of the most novel engineered and functionalized fibers for use in technical papers and nonwovens is expected to take the lead by 2020.

"The Indian market for wetlaid nonwovens is expected to follow the path of the western world though in a relatively smaller scale. India is fast catching up in terms of both technology and performance."

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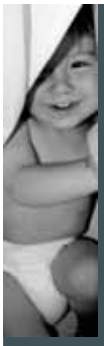

SMS Nonwovens

BCH: What are your views on the present situation of the Indian market for the SMS nonwoven technology?

Mr. Mallyah Marimuthu
Vice President – Business Development
Global Nonwovens Limited

MM: SMS nonwoven fabrics are currently being used in hygiene and medical segments in India. The usage of SMS nonwovens in the hygiene segment is almost 50% to 60% of the total volume. In the medical segment, converted products like surgeon's gowns, patient drapes and sterilization wraps are manufactured with SMS nonwovens. Due to low penetration levels, the hygiene segment is growing at double digit growth rates in India. Favorable demography, increasing middle class, increasing working women population and urbanization will drive the hygiene market in India in the future.

Growth in the medical segment though looks bright, is stunted due to lack of government stipulations in hospitals and following of product standards in India. While high end hospitals can afford the right kind of operating theatre disposables for infection prevention, the government run and low end hospitals use just any kind disposable products for the sake of cheaper price. The government should intervene and make proper amendments in the Indian pharmacopeia and product standards to promote infection prevention and hospital acquired infection.

"The usage of SMS nonwovens in the hygiene segment is almost 50% to 60% of the total volume. In the medical segment, converted products like surgeon's gowns, patient drapes and sterilization wraps are manufactured with SMS nonwovens. Due to low penetration levels, the hygiene segment is growing at double digit growth rates in India."

BCH: How do you see the Indian Market movement when compared to the developed world for the SMS Nonwovens? What applications are mostly prevalent in the Indian market?

MM: Developed countries due to their higher purchasing power parity have matured up and have full blown hygiene and medical markets with very high market penetration levels. Developed market can afford high end products and high prices. Whereas the Indian market for SMS nonwovens is rather progressing slowly for Indian manufacturers as the market for hygiene products is highly price sensitive with low penetration levels. Low penetration levels can only be improved with low cost products in rural areas.

Indian hygiene market is governed by multinational companies who have no policy of local sourcing. Because of this reason, still a lot of imports of hygiene products as well as SMS nonwovens are happening in India thus hampering the growth of local manufacturers. Further multinational hygiene product manufacturers look at roll goods companies having two to three lines as their reliable supply source than companies having a single line. Indian roll good manufacturers are yet to grow in size and volume to cater to these multinational companies globally. The Indian government should support local roll goods manufacturers with further expansion development schemes.

Most prevalent applications for SMS nonwovens are components of diapers such as core wrap, leg cuff, back sheet & outer cover laminate and in few cases top sheet for diapers and underpads. In the medical segment, primary applications for SMS nonwovens are gowns, drapes and face masks.

BCH: What are the innovations/market changes/developments or future trends that will be seen in this industry in the coming years for SMS nonwovens by 2020?

MM: This industry will see more and more use of finer basis weight products as low as 7 or 8 GSM in the hygiene segment. Also softer top sheets, elastomeric and low temperature sealing waist panels for pants, ATB top sheets, printed and pre embossed top sheets will be the future trends and developments in the hygiene industry. To help the growth of the hygiene market in India, additional fine denier spunmelt machines, BICO lines and ATB lines are required. In the medical segment, use of antistatic and alcohol repellent SMS nonwovens together with soft and high absorbent nonwovens will grow further as India will become a major converting hub for the medical disposable market in the Middle East, Europe and America.

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Spunlaced Nonwovens

BCH: What are your views on the present situation of the Indian market for the Spunlace nonwoven technology?

Mr. R R Maheshwari
Director Marketing & Business Development
Ginni Filaments

RRM: The Indian market is growing at a very healthy rate but from a low base. There is abundant capacity available and industry players are working with the downstream converters and brand owners to grow local consumption. This spulace nonwoven industry has built up a good name for itself in the international markets and the product quality is rated at par with global standards. The capacity utilization is healthy if we include both domestic and export quantities.

> ***"This spunlaced nonwoven industry has built up a good name for itself in the international markets and the product quality is rated at par with global standards."***

BCH: How do you see the Indian market movement when compared to the developed world for the Spunlace Nonowovens? What applications are mostly prevalent in the Indian market?

RRM: Due to abundant local availability, the use is growing in different segments. Wipes continue to be the major consumption area accounting for about 70% of the usage. Usage is also growing in other segments like automotive, medical, filtration and as leather substrates. The wipes penetration is still low as compared to the developed world but growing at a healthy rate of 15% to 20%.

BCH: What are the innovations/market changes/developments or future trends that will be seen in this industry in the coming years for Spunlace by 2020?

RRM: Industry is innovating new products by using different fibres and chemistry and through process improvements thus offering custom made products for different applications. This industry will continue to grow and build capacities. Exports will continue to be major part. Use of wipes will be all pervasive in times to come. The Spunlace industry has a bright future with vast potential for penetration of wipes and other products.

Spunbonded Nonwovens

Mr. Apurva Ranka
Director
Alpha Foam Ltd

BCH: What are your views on the present situation of the Indian market for the Spunbond nonwoven technology?

AR: Spunbond nonwoven technology for the generic markets is readily available in India. It is well entrenched in the packaging industry but the growth in the hygiene & medical sector leaves a lot to be desired. Technologically lower gsm, niche market products and good fabric consistency is provided by only a few players. Application development is an area where the Indian industry is lacking. I think technologically spunbonding has peaked but developing various products using spunbonded nonwovens is the future.

> ***"Spunbond nonwoven technology for the generic markets is readily available in India. It is well entrenched in the packaging industry but the growth in the hygiene & medical sector leaves a lot to be desired."***

BCH: How do you see the Indian Market movement when compared to the developed world for the Spunbond Nonowovens? What applications are mostly prevalent in the Indian market?

AR: As India develops and the purchasing power of the Indian population increases the spun melt fabric consumption will increase. At present there is overcapacity in the Indian market and it will be 2-3 years till capacity utilization will improve for existing players. The penetration for hygiene & medical nonwovens in India is very low compared to the developed world. I think our Prime Minister Narendra Modi's 'Swachh Bharat' (Clean India) initiative should help create awareness for health & hygiene.

BCH: What are the innovations/market changes/developments or future trends that will be seen in this industry in the coming years for Spunbonding by 2020?

AR: Spun bonding of various polymers other than polypropylene and bringing new technology in the Indian market will be the future. Fabric with lower deniers and use of spun bonding with hydro-entanglement is also an upcoming technology.

contd...

"Detachment is not that you should own nothing, but that nothing should own you."

- Ali Ibn Abi Talib

Meltblown Nonwovens

BCH: What are your views on the present situation of the Indian market for the Meltblown nonwovens ?

Mr. Dhiren Shah
Managing Director
Aim Filtertech
Pvt. Ltd.

DS: I think the Indian market for meltblown nonwovens in the medical & hygiene disposables segment will grow as is evident from the new capacities being set up. However all other sectors do not show sufficient volume. Bulk of the meltblown segment is & will be export focused. However owing to higher interest and power costs in India, the Indian product is not competitively placed globally vis- a- vis pricing and quality. The awareness for the fine fiber products in India is not very high. It is going up but critical mass is still not available.

Recent cases of Indian cities showing excessive pollution did spur meltblown growth for products like air purifier and cabin air filters. The capacities were however picked up by asian counterparts immediately. This will continue to affect the Indian players as the technology and quality is already developed to market needs by the competitors overseas. It may be difficult for the Indian supplier to withstand global competition due to expensive cost of operations in India!

"I think the Indian market is at a tipping point for the meltblown Industry. Assuming current reforms stay on line and we keep up our growth rate I would envisage the meltblown markets will grow in India at a healthy rate of 15% to 20%. Innovation trends that will drive the growth in the meltblown segment will definitely be for better filtration needs in liquid, air, oil and water filtration."

BCH: How do you see the Indian Market movement when compared to the developed world for the Meltblown Nonowovens? What applications are mostly prevalent in the Indian market?

DS: The Indian market has not developed itself due to several constraints. We have repeatedly heard in conferences that India will keep growing, however we don't see a critical mass being builtup in this segment. The applications prevalent in India are filtration, personal safety, hygiene, medical and absorbent segments.

Globally meltblown capacities are built up against commitment of critical volumes due to organized nature of the market. The driver for this mainly comes from a very strong regulatory frame work and enforcement of standards by the Industry and Government. In India the regulatory frame work will need to be improved to propel the growth of non wovens. Medical authorities, Insurance companies affected by high infection claims, need to strongly enforce infection control mechanisms across the board. The A class hospitals seem to have an awareness of disposable medical products, however the rest of the hospitals still do not have such enforcement measures in place.

Implementation of Indoor air and or liquid filtration quality standards in mobility solutions and buildings will propel the growth as and when it happens. Europe and US strongly enforce the standards whereas the implementation of these is poor in India. I am sure as time builds up this will grow in India.

The need of the hour is for the Indian industry to come out with innovation, perhaps develop better products and technologies! Instead of copying we need to start developing / designing for the 'Make in India' campaign to be a success!!!

BCH: What are the innovations/market changes/developments or future trends that will be seen in this industry in the coming years for Meltblown by 2020?

DS: I think the Indian market is at a tipping point for the meltblown Industry. Assuming current reforms stay on line and we keep up our

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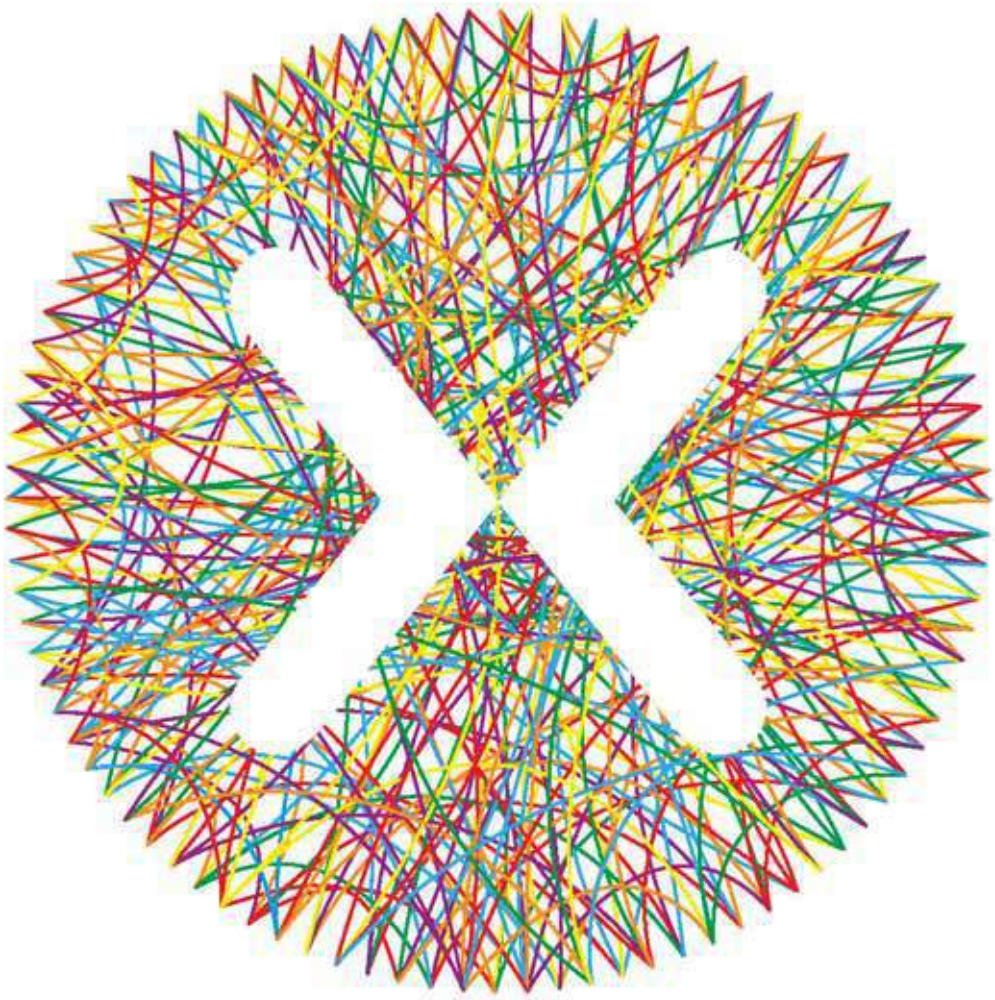

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growth rate I would envisage the meltblown markets will grow in India at a healthy rate of 15% to 20%. However reaching critical volumes to allow already installed capacity to be fully utilized may be a challenge. Globally we are seeing more learned buyers shifting to own territories for sourcing, so exports may be stunted except where manual labour intervention will be high. Example, gowns or drapes for medical uses.

The future clearly will lie in developing technologies from core and extrapolating it to a final product. Addressing needs of the customers and using the voice of customer analysis will be key to setting up the capacities in the country. It will be counterproductive to bring in old technologies and or old equipment to simply look at contract manufacturing possibilities. Industry will have to innovate for profitable growth!

Innovation trends that will drive the growth in the meltblown segment will definitely be for better filtration needs in liquid, air, oil and water filtration. Increasingly projects now being run in India are of global nature and the filtration Industry thus desires long life filters with high filtration effecieny. Customers will need equivalent or even better products than the ones globally available and at a better price when it comes to market options in India. Fine fiber technologies for better barrier properties in surgical gowns are perhaps the other areas of interest to the Industry!

"It will be counter-productive to bring in old technologies and or old equipment to simply look at contract manufacturing possibilities. Industry will have to innovate for profitable growth!"

Air Through Bonded Nonwovens

BCH: What are your views on the present situation of the Indian market for the Air Through Bonded Nonwoven technology?

Ms. Deepti Maheshwari
Director
Ace Nonwoven Pvt. Ltd.

DM: The present situation for hot air through bonded nonwovens in India looks very bright and exciting. The Industry has welcomed 'Ace' very well. Earlier only few brands were importing the air through fabric but now when it is available locally, many brands dealing in Sanitary napkins and Baby diapers are incorporating this fabric in their products for product differentiation and brand building.

"The Indian market will follow the global trends where air through bonded fabrics is becoming a material of choice for the disposable hygiene products."

BCH: How do you see the Indian Market movement when compared to the developed world for the Air through bonded Nonwovens? What applications are mostly prevalent in the Indian market?

DM: India being a developing country has very low penetration rates for hygiene products; however the hygiene industry is growing at a rate of 15% to 20% annually. With the government promoting this sector and with the increase in the purchasing power, feminine and childcare hygiene is taking a different dimension. Awareness has increased and people are looking for good quality products. Many new brands are coming to India in the hygiene sector and they are incorporating air through bonded nonwovens for their soft and bulky nature as top sheets and acquisition distribution layers (ADL). This usage of these nonwovens would be a step in taking hygiene products to global standards.

BCH: What are the innovations/market changes/developments or future trends that will be seen in this industry in the coming years for Air through bonding by 2020?

DM: We see the market taking a huge leap in terms of both quantity and quality. With growing national income, the demand for both quantity and quality is definitely set to increase. With availability of air through bonded fabric in India, it is expected that major brands will shift to air through bonded top sheets and ADLs. The Indian market will follow the global trends where air through bonded fabrics is becoming a material of choice for the disposable hygiene products. ■

INDIA BUDGET 2017-18
Key Indicators

The agenda for 2017-18 is : "Transform, Energise and Clean India"

India is seen as an engine of global growth and according to IMF forecast, India is expected to be one of the fastest growing major economies in 2017. Thus IMF, even while revising India's GDP forecast for 2016 downwards, has projected a GDP growth of 7.2% and 7.7% in 2017 and 2018 respectively. The World Bank, however, is more optimistic and has projected a GDP growth of 7% in 2016-17, 7.6% in 2017-18 and 7.8% in 2018-19. India has become the sixth largest manufacturing country in the world, up from ninth previously. Foreign Direct Investment (FDI) increased from Rs 1,07,000 crores in the first half of 2015-16 to Rs 1,45,000 crores in the first half of 2016-17. The Government e-market place which is now functional for procurement of goods and services, has been selected as one of the winners of the South Asia Procurement Innovation Awards of the World Bank.

Shri Arun Jaitley
Finance Minister,
India

Amidst this scenario the Union Minister for Finance and Corporate Affairs of India, **Shri Arun Jaitley presented the General Budget 2017-18 in the Indian Parliament on the 1st February, 2017**. This budget provides renewed impetus to manufacturing and the 'Make in India' initiative, the export infrastructure and the Government e-marketplace. Some of the key measures that have been announced would directly or indirectly provide a great push to the Technical Textiles and the Nonwoven industry. Some key indicators are mentioned below:

- Total expenditure in Budget for 2017-18 has been placed at Rs. 21.47 lakh crores and this is expected to have multiplier effects and lead to higher growth. Approach is to spend more in rural areas, on infrastructure and poverty alleviation while maintaining fiscal prudence.
- Further liberalisation of FDI policy is under consideration and the Foreign Investment Promotion Board (FIPB) to be abolished in 2017-18.
- A new and restructured Central scheme, namely, Trade Infrastructure for Export Scheme (TIES) will be launched in 2017-18.
- Inverted duty has been rectified in several products in the chemicals & petrochemicals, textiles, metals & renewable energy sectors.
- Infrastructure – The total allocation for infrastructure development in 2017-18 stands at Rs. 3,96,135 crores out of which Rs. 2,41,387 crores is for rail, roads & shipping. A specific programme for development of multi-modal logistics parks, together with multi modal transport facilities, to be drawn up and implemented.
- Railways expenditure will be Rs. 1,31,000 crores, Rs.55,000 crores to be provided by the Government .
- In the road sector, Budget allocation for highways has stepped up from Rs. 57,976 crores in 2016-17 to Rs. 64,900 crores in 2017-18. 2,000 kms of coastal connectivity roads have been identified for construction and development. The total length of roads, including those under PMGSY, built from 2014-15 till the current year is about 1,40,000 kms which is significantly higher than previous three years.
- The total allocation for the rural, agriculture and allied sectors in 2017-18 is Rs. 1,87,223 crores, which is 24% higher than the previous year.
- Farmers, for whom the Indian government has committed to double their income in 5 years; A model law on contract farming amongst many other measures undertaken would be prepared and circulated among the States for adoption.
- In solar energy, it is now proposed to take up the second phase of Solar Park development for additional 20,000 MW capacity.
- Budget for the welfare of Women and Children stepped up from Rs. 1,56,528 crores in BE 2016-17 to Rs. 1,84,632 crores in 2017-18.

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Output-Outcome Framework for Schemes 2017-18: *A Selected Few*

From the year 2017-18 onwards, it has been decided that the output and outcomes of the schemes of 68 Ministries and Departments of India will be available along with the financial outlays as a part of the Budget documents, so that clearly defined objectives and goals for each scheme can be seen by all. The present budget, therefore, makes a significant departure from the past and presents (a) the financial outlay for the year 2017-18 along with (b) the output and deliverables and (c) the projected medium term outcomes for each Scheme/Project in a single, consolidated document. This will significantly enhance transparency, predictability and ease of understanding of the Government's development agenda. Through this exercise, the Government aims to nurture an open, accountable, pro-active and purposeful style of governance by transitioning from mere outlays to result oriented outputs and outcomes. This effort will enable Ministries to keep track of the scheme objectives and work towards the development goals set by them. Mentioned below are some of the important outputs and outcomes:

(Rs. in crores)

Indian Ministry	Name of the Scheme/Sub Scheme	Financial Outlay 2017-18	Outputs / deliverables against the outlay 2017-18	Projected Medium term Outcomes
Department of Industrial Policy and Promotion	Scheme of Investment Promotion	272.48	• Improve India's ranking in "Ease of Doing Business Report, 2018" to 90 during 2017-18 and to 30 by 2020. • Execution of 360 degree awareness campaign for investment targeting to attract investors to invest in selected 25 sectors under Make in India	Better rank in ease of doing business and greater awareness about opportunities in India in manufacturing sector would lead to growth in the manufacturing sector.
Department of Industrial Policy and Promotion	Development of Industrial Corridors	1044.80	Implementation of trunk infrastructure including Roads & Services, Administrative & Business Centre, Water Treatment Plant, Common Effluent Treatment Plant & Sewage Treatment Plant etc., in Dholera, Shendra, Integrated Industrial Township in Greater Noida (IITGN) & Vikram Udyogpuri	Development of infrastructure facilities in the region would open avenues for development of Greenfield Industrial Area and provide impetus for further development of the region.
Department of Industrial Policy and Promotion	Industrial Infrastructure Upgradation Scheme	200.00	• Completion of all pending projects under Industrial Infrastructure Upgradation Scheme (IIUS) • 10 projects to be completed under Modified IIUS	Provide improved infrastructure in the industrial clusters which would catalyse industrial growth and employment generation
Department of Industrial Policy and Promotion	North East Industrial Investment Promotion Scheme (NEIIP)	600.00	Actual number of units that avail the capital subsidy facility and other promotional measures would depend on demand preferred by the industries and final verification undertaken by DIPP.	Would lead to industrial development in the North Eastern Region through various promotional measures, including financial subsidy on cost of capital
Department of Industrial Policy and Promotion	Transport Subsidy Scheme / Freight Subsidy Scheme	293.71	Actual number of units that seek the transport cost subsidy to defray high costs in difficult terrain would depend on demand preferred by the industries & final verification undertaken by DIPP.	Will promote industrialization in hilly, remote and inaccessible areas by defraying the high cost of 24 transportation

Government Interface

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(Rs. in crores)

Indian Ministry	Name of the Scheme/Sub Scheme	Financial Outlay 2017-18	Outputs / deliverables against the outlay 2017-18	Projected Medium term Outcomes
Ministry of External Affairs	Aid to Bangladesh, Bhutan, Nepal, Sri Lanka, Maldives, Myanmar, Africa, Eurasia, Latin America, Afghanistan, Other developing Countries	5649.00	Technical and economic development cooperation towards strengthening of bilateral relations	Strengthening relations between the two countries
Ministry of External Affairs	SAARC Programme	10.00	SAARC-level initiatives	Strengthening relations
Ministry of External Affairs	ASEAN Multilateral	30.00	India's relations with ASEAN countries	Strengthening relations
Department of Heavy Industry	Faster Adoption and Manufacturing of Electric (& Hybrid) Vehicles in India	175.00	• Establishment of 200 charging stations. • Technology Development support of Rs. 25 crores for manufacture of full range of cleaner electric Vehicles and components; • 1.5 lakh vehicles • Academic partner for setting up of Centre Excellence for Battery technology would be identified. • 200 Electric busses would be included in urban public transport; • 1000 Government Vehicles would be converted as Electric Vehicles.	Faster adoption and development of manufacturing/ market ecosystem of hybrid/electric vehicle with about 2 to 3 million
Ministry of New & Renewable Energy (RE)	Wind Power (on grid)	400	4000 MW(GBI scheme for wind is operation upto March, 2017 and there will be no commissioning under scheme)	Increasing Renewable Energy share to 8% in total Power Generation with also the help of increase in other energy sources
Ministry of New & Renewable Energy (RE)	Solar Power (on grid)	2661	10000 MW	Increasing Renewable Energy share to 8% in total Power Generation with also the help of increase in other energy sources
Ministry of New & Renewable Energy (RE)	Green Energy Corridors (on grid)	500	Commissioning of 350 Ckms in Current Year	To create about 8553 CKMs grid lines to evacuate renewable power from dispersed renewable generation locations in 8 Renewable Rich States
Department of Rural Development	Pradhan Mantri Gram Sadak Yojana (PMGSY)	19000	Construction of 59,150 length in KM	Increase in no. of eligible habitations by all-weather roads connectivity
Ministry of Textiles	Scheme for Integrated Textile Park	50.00	Sanction of 6 new Textile Parks with 80 production units	Higher production and productivity following creation of world class infrastructure facilities for the textile sector
Ministry of Textiles	Integrated Processing Development	30.00	Sanction of 6 new high capacity common effluent treatment plants	Makes textile processing sector compliant with environmental standards
Ministry of Textiles	Amended Technology Upgradation Fund Scheme	2013.00	2180 units to be assisted for technology upgradation	Technology up-gradation leading to higher productivity

contd...

Impactful Economic Reforms in India

In the last one year, India has witnessed historic and impactful economic reforms and policy making. In fact, India was one of the very few economies undertaking transformational reforms. There were two tectonic policy initiatives, namely, passage of the Constitution Amendment Bill for GST and the progress for its implementation; and demonetisation of high denomination bank notes.

Demonetisation of high denomination bank notes which took place in November 2016 was in continuation of a series of measures taken by the Indian Government. For several decades, tax evasion for many had become a way of life. This compromised the larger public interest and created unjust enrichment in favour of the tax evader, to the detriment of the poor and deprived. This had bred a parallel economy which was unacceptable for an inclusive society. Demonetisation seeks to create a new 'normal' wherein the GDP would be bigger, cleaner and real. This exercise is part of the Government's resolve to eliminate corruption, black money, counterfeit currency and terror funding. Terming demonetisation a right cause, Finance Minister recalled Mahatma Gandhi's quote that "A right cause never fails"

There also has been substantial progress towards ushering in **Goods & Services Tax (GST)**, by far, the biggest tax reform since independence. Since the enactment of the Constitution (One Hundred and First Amendment) Act, 2016, the preparatory work for this path-breaking reform has been a top priority for the Government. In this context, several teams of officers both from the States and Central Board of Excise and Customs have been working tirelessly to give finishing touch to the Model GST law and rules and other details. Government on its part has promptly given effect to various provisions of the Constitutional Amendment Act, including constitution of the GST Council. The GST Council has finalised its recommendations on almost all the issues based on consensus and after spirited debate and discussions. The preparation of IT system for GST is also on schedule. The extensive reach-out efforts to trade and industry for GST will start from 1st April, 2017 to make them aware of the new taxation system.

Centre, through the Central Board of Excise & Customs, shall continue to strive to achieve the goal of implementation of GST as per schedule without compromising the spirit of co-operative federalism. Implementation of GST is likely to bring more taxes both to Central and State Governments because of widening of tax net. Not many changes in current regime of Excise & Service Tax have been made because the same are to be replaced by GST soon.

"For demonetisation, good economy was needed and this was a proper time. Our economy was doing well and our (demonetisation) decision was taken at the right time."

Bureau of Indian Standards Says...

Bureau of Indian Standards, the National Standards Body of India, has been entrusted the task of formulation of Indian Standards in the different technological areas. This year, under Textile Division Council, much emphasis has been given to **Human Health, Safety, Infrastructure development and Agriculture** which are in line with the Indian government's plans and policies.

The important Indian Standards under formulation and completion in the first half of 2017 under various categories are:

Medical Textiles	Absorbent cotton ribbon gauze, x-ray detectable absorbent cotton gauge, elastic crepe bandages
Geotextiles	Non woven and woven geobags for coastal and waterways protection
Agrotextiles	Non woven crop covers for agriculture and horticulture applications, HDPE woven Lay Flat tube for use in mains and sub-mains of drip irrigation system
Packaging Textiles	PP block bottom valve sacks for packing cement, laminated woven sacks for packing bulk commodities in retail consumer packs
Protective Textiles	Protective gloves for fire fighters, protective clothing for fire fighters, protective clothing for use in welding and allied processes, pouch for ammunition and grenades, tactical 3 points sling universal
Industrial Textiles	Polyester/cotton belting duck, waterproof tarpaulins made from woven polyester fabric
Nonwovens	Many test methods for nonwovens

Watch this space in the next issue for more details.

Special Feature

A tête-à-tête with Mr. Jim Owens

Demand for nonwoven, high-performance adhesives continues to increase as the need for disposable hygiene products, such as baby diapers, training pants, feminine protection, and adult incontinence products, grows across the globe. Adhesives may only contribute to a small percentage of the total materials used in nonwoven adhesives and other hygiene products, but they are playing a more fundamental role in delivering the enhanced functionality required for innovation, and for meeting the changing demands of end users. H.B. Fuller, a leading global adhesives provider, will guide you through the importance of adhesives solutions that work best with disposable hygiene products and their experience in emerging markets, especially India, through the below discussion with H.B Fuller's President and CEO who has more than 30 years of experience in the field of adhesives.

Mr. Jim Owens
President & CEO
H.B. Fuller

Owens was appointed president and CEO of H.B. Fuller in November 2010. Prior to that appointment, he served as senior vice president, Americas, and senior vice president, North America. Prior to joining H.B. Fuller, he served as the senior vice president of Henkel Corporation, and in a variety of leadership positions at National Adhesives. Owens has a bachelor's degree in chemical engineering from the University of Delaware and an MBA from the Wharton School of Business. He also serves as a director for the University of Minnesota's Carlson School of Business Board of Overseers and its Executive Education Advisory Board.

BCH: H.B. Fuller is a leading global industrial adhesives manufacturer. Please introduce your company as you would?

JO: For 130 years, H.B. Fuller has been a leading global adhesives provider focusing on perfecting adhesives, sealants and other specialty chemical products to improve products and lives. With fiscal 2016 net revenue of $2.1 billion, H.B. Fuller's commitment to innovation brings together people, products and processes that answer and solve some of the world's biggest challenges. Our reliable, responsive service creates lasting, rewarding connections with customers in electronics, disposable hygiene, medical, transportation, clean energy, packaging, construction, woodworking, general industries and other consumer businesses. And our promise to our people connects them with opportunities to innovate and thrive.

BCH: According to you how important/crucial is the quality of adhesives to the performance of disposable hygiene products?

JO: Adhesives make up a small percentage of the total materials used in nonwoven adhesives and other hygiene products, but they play a fundamental role in delivering the enhanced functionality required for innovation, and for meeting the changing demands of end users. Think about how the world has changed in the hygiene market, thanks in part to adhesive innovations: improved absorption, thinner cores, greater fit and comfort, and less waste. Plus, with more raw materials to choose from, more processing variables, more application techniques, and greater collaboration between manufacturers and suppliers, nonwoven, high quality adhesives are critical to the final end performance. Our Full-Care™ hygiene solutions offer more than high performance nonwoven adhesives. They offer innovative care, supply care, technical care, economic care and global care, so producers and consumers can rest assured.

BCH: Out of the many innovations that have been announced lately in the hotmelt adhesives industry, which one do you think is going to lead the way to changing the dynamics of this industry? Please elaborate on your company's innovations & R&D.

JO: Ultimately, high polymer formulations that allow for higher mileage and more sustainable formulations and that are less vulnerable to resin shortages will change the dynamics of the industry. Hot melt technology is very dependent on strong supplier relationships and on understanding their capabilities. At H.B. Fuller, our scientists are working closely with customers and key suppliers to optimize our adhesive technology, improve performance and provide supply security to our customers. To enable our innovation and put us in a better position to help improve our customers' products, we try to influence our suppliers' future raw material development because new raw materials, together with novel formulation approaches, allow us to achieve differentiation and growth.

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BCH: What are the innovations or future trends that will be seen in the disposable hygiene industry altogether? There also is buzz of glueless applications, along with enhanced stretchability and no odour.

JO: Adhesives for the hygiene market must meet dynamic market conditions. Disposable absorbent products continue to evolve in their design, and today's products are being created on higher speed lines with materials that enable them to be thinner, more comfortable and better fitting, while increasing absorbency. Plus, consumer sensory needs are becoming more important and our customers address this with softer substrates, increased use of elastomerics and materials with more neutral odors. We see an increased use of stretch and elastomeric materials in disposable absorbent products. To secure these 'stretch engines' in the product, it is possible to use either ultrasonic bonding or adhesive solutions. Ultrasonic bonding can create a stiffness in the product, as well as deaden the stretch in the bond point. Instead, disposable product manufacturers can use our Full-Care™ 9700 Series of stretch lamination adhesives, which are designed for low odor, high bonding strength, and excellent aged performance and stability. Also, we have our award-winning Full-Care™ 5000 Series of construction products that offer low odor solutions and help customers achieve the higher performance they are looking for in their product designs. Finally, our unique stretchable Conforma™ adhesive, that makes possible new stretch materials that are an ideal fit for disposable underwear, has just been shortlisted as an INDEX™ Award finalist.

BCH: How would you differentiate the developed countries with the developing ones w.r.t. a market for hot melt adhesives? What challenges have you specifically faced in the developing countries?

JO: This is an interesting question and needs to be approached from two aspects.

First, in understanding the market behavior with respect to sociocultural barriers and income disparity between the two kinds of economies. This has a direct impact upon consumer behavior, which, in turn, affects production and supply trends.

Second, and perhaps more important, with respect to hot melt manufacturing in India and other developing countries, the biggest challenge is the lack of local supply of raw materials. Manufacturers are largely dependent on European or Asian countries for the supply of raw materials. Additionally, complex tax laws, and lack of proper logistics and infrastructure directly impact production and supply management.

In India, the situation is looking positive for the future. The Government of India is undertaking constructive steps, such as implementing the new Goods and Services Tax, and making substantial investments in infrastructure development.

BCH: Please tell us about your manufacturing capabilities in India and your vision for India and other emerging markets for disposable hygiene products?


Shirwal Factory, Pune


Indian R&D Lab

JO: H.B. Fuller has had a local presence in India since 2011 through its 24,000-metric-tons-per-annum greenfield manufacturing facility in Shirwal, located 65 kilometers from Pune. Having just concluded the first phase of investment of $20 million in India through the addition of our new business office in Pune, and expansion of our state-of-the-art R&D center, we are aiming to provide high technical support, accurate product testing and R&D, and strong customer focus. H.B. Fuller's commitment to the people of India is through its efforts to bring high quality innovative products, such as polyolefin-based products and MPOs, which have superior chemical properties. We bring to the Indian market a globally acknowledged superior range of products such as our Conforma™ stretch adhesive, which is already shortlisted for the INDEX™ Awards in Geneva.

As a testimony to the quality, commitment and passion shown by the India team to our customers and the market in India, the H.B. Fuller India manufacturing site, among our global sites, was awarded the H.B. Fuller Plant of the Year Award for 2016.

When looking at other emerging markets, we're continuing to strengthen our network in the Asia Pacific region. Our newest manufacturing facility in Surabaya, Indonesia, is now complete, and is just another example of our commitment to deliver innovative adhesive solutions and value to our hygiene customers. The 30,000-square-meters-of-land facility will strengthen H.B. Fuller's presence in Asia Pacific, where we also have manufacturing

facilities in China, Japan, Malaysia, the Philippines and Australia. This could not have come at a more opportune time, as a recent report indicated that significant growth in emerging markets is driving product development and expansion opportunities for consumer goods manufacturers in key countries, including Southeast Asia. In fact, it is estimated that, by 2025, approximately 50 percent of global consumption will take place in emerging markets.

BCH: Recently, many convertors of disposable hygiene products have been unsuccessful in India, even though there being a huge potential and market. Could you elaborate on the reasons for this through your Indian team's experience?

JO: Manufacturers in India face a number of challenges that pose a serious deterrent to growth. India lacks a mature retail environment that gives rise to a fragmented distribution network. This makes market penetration tougher in an already challenging economic environment, where income disparities require complex pricing strategies.

There also is an acute lack of local suppliers of the raw materials needed for production. This impacts costing and therefore, subsequent pricing of products. Additionally, there are complex logistics and tax laws in place. Also India has a very fast-paced dynamic market, which requires a quick response time from manufacturers. For example, the diaper market has already been upstaged by disposable pants in India.

To get an accurate reflection of the market, we must acknowledge that many global multinational corporations and a number of local ventures are doing extremely well in the market.

BCH: By being close to your customers in India, how much market do you strive to share in the next five years in the disposable hygiene adhesive industry of India?

JO: H.B. Fuller is a leading supplier of adhesives in the nonwoven hygiene market in India, and we plan to maintain this momentum of growth by investing even further in our R&D facilities, expanding our manufacturing footprint and investing in building a highly qualified talent pool of technical resources.

BCH: What makes H.B. Fuller stand apart from its competitors?

JO: H.B. Fuller is well known for its innovative and collaborative approach, where we consider ourselves partners, and not just suppliers to our customers. Our passionate and committed team of experts are locally present to provide technical support that is backed by the regional, as well as global R&D centers. We aim to deliver customized solutions for the unique challenges faced by our customers.

BCH: What are your company's future growth and expansion plans?

JO: Last year, we announced our 2020 strategy, which laid out our plans to expand our business around the world and in key consumer and durable goods markets. Our goal is to gain market share in the targeted areas where we operate, and we're going to do that by leveraging the knowledge of our market experts, creating a flawless supply chain, developing game-changing innovation capabilities and differentiating our ability to work with suppliers. We expect to grow significantly, particularly in certain segments. Our Engineering Adhesives segment, which includes the electronics, new energy, automotive and medical markets, will achieve double-digit growth. We expect the same levels of growth in select emerging markets, like India, the Middle East, Africa, Brazil and Indonesia. Other segments, such as disposable hygiene and nonwovens, are strong performers, and we plan to continue their solid growth trajectory in the next five years.

BCH: Last but not the least on what note would you like to end this discussion?

JO: The adhesives industry is about people, and at H.B. Fuller, our people are our competitive advantage. We've put a lot of energy into recruiting, hiring and developing an incredible team of talented people … people who are experts in our customers' businesses, people who are global in their thinking, and people who are good at making decisions about how and where we invest to grow profitably. We've built a solid foundation, invested in our infrastructure, capabilities and footprint, and we are confident that we will continue to win with customers and grow in the markets we serve, including India. ■

"In India, the situation is looking positive for the future. The Government of India is undertaking constructive steps, such as implementing the new Goods and Services Tax, and making substantial investments in infrastructure development."

Mr. Jim Owens, President & CEO, H.B. Fuller

Forthcoming Events

January - March 2017

ICERP 2017
10 - 12 January; Mumbai, India;
www.icerpshow.com
ITME 2017
15 - 16 January; Beijing, China;
www.itme2017.org
ISPO Munich
05 - 08 February; Munich, Germany;
www.munich.ispo.com
OUTLOOK™ Plus Latin America 2017
07 - 09 March; São Paulo, Brazil;
www.inda.org
Geotechnicalfrontiers 2017
12 - 15 March; Orlando, USA;
www.geotechnicalfrontiers.com
JEC World 2017
14 - 16 March; Paris, France;
www.jeccomposites.com
CIDPEX 2017
22 - 24 March; Wuhan Hubei, China;
www.cnhpia.org

April - June 2017

Aircraft Interiors Expo®
04 - 06 April; Hamburg Messe, Germany;
www.aircraftinteriorsexpo.com
Index™17
04 - 07 April; Geneva, Switzerland;
www.index17.org
FILTREX™ @INDEX™17
05 - 06 April; Geneva, Switzerland;
www.edana.org
Advanced Filtration Technologies Conference
10 – 13 April; Louisville, USA;
afsspring.societyconference.com
Technotex 2017
12 - 14 April; Mumbai, India;
www.technotexindia.in
Asia Textile Innovation Forum 2017
19 - 20 April; Mumbai, India;
www.greenlinkgroupsh.com/atif2017/index.asp
ROOF INDIA 2017
20 - 22 April; Mumbai, India;
www.roofindia.com
10th World Flexible Intermediate Bulk Container Congress & Exhibition
02 - 03 May; Amsterdam, The Netherlands;
www.mcimedia.com
Techtextil 2017
09 -12 May; Frankfurt, Germany;
www.techtextil.com
Non Woven Tech Asia 2017
08 - 10 June; Mumbai, India;
www.nonwoventechasia.com
World of wipes international conference
12 - 15 June; Nashville, USA;
www.inda.org
Outdoor 2017
18 - 21 June; Friedrichshafen, Germany;
www.outdoor-show.com
Automotive Interiors Expo 2017
20 - 22 June; Stuttgard, Germany;
www.automotive-interiors-expo.com
Heimtextil India 2017
20 - 22 June; New Delhi, India;
www.heimtextil-india.in.messefrankfurt.com
OSH INDIA
29 - 30 June; Chennai, India;
www.oshindia.com

July - September 2017

Fire India 2017
07 - 09 September; Mumbai, India;
www.fire-india.com
RISE® Research, Innovation & Science for Engineered Fabrics Conference
12 - 14 September; Raleigh, USA;
www.inda.org
Occupational Health & Safety
13 - 14 September; Dallas, USA;
www.occupationalhealth.conferenceseries.com
DORNBIRN-MFC 2017
13 - 15 September; Dornbirn, Austria;
www.dornbirn-mfc.com
Techtextil India 2017
13 - 15 September; Mumbai, India;
www.techtextil-india.in.messefrankfurt.com
IFAI Expo
26 - 29 September; New Orleans, USA;
www.ifaiexpo.com
OUTLOOK™ 2017
27 - 29 September; Cascais, Portugal;
www.edana.org

October - December 2017

Filtration 2017
10 - 12 October; Chicago, USA;
www.inda.org
A+A
17 - 20 October; Düsseldorf, Germany;
www.aplusa-online.com
JEC Asia 2017
01 - 03 November; Seoul, South Korea;
www.jeccomposites.com
Hygienix 2017
06 - 09 November; Austin, USA;
www.inda.org
SINCE 2017
08 - 10 November; Shanghai, China;
www.since-expo.com
COMPAMED 2017
13 - 16 November; Düsseldorf, Germany;
www.compamed-tradefair.com
OSH INDIA
23 - 24 November; Mumbai , India;
www.oshindia.com
How to Make the 'Right' Disposable Hygiene Product?
06 - 08 December; India;
www.bch.in

Glimpses of Some Leading Industry Events

ANFA Nonwovens Conference 2016
28-30 November, 2016
Taiwan


2016 ANFA Nonwovens Conference


2016 ANFA General / Board Meeting


2016 ANFA Nonwovens Conference

ANFA Nonwovens Conference 2016, which was organized by ANFA (Asia Nonwoven Association) with TNFIA (Taiwan Nonwoven Fabrics Industry Association), was held from 28th Nov 2016 to 30th Nov 2016 at Chateau de Chine Hotel Kaohsiung, Taiwan, with the support by ANNA (All Nippon Nonwovens Association)/ KNIC (Korea Nonwoven Industry Cooperation)/ CNTA (China Nonwovens Technical Association)/ and HKNA (Hong Kong Nonwovens Association). The conference was also sponsored by EDANA (European Disposable and Nonwovens Association) /INDA (Association of the Nonwoven Fabric Association) and TTRI (Taiwan Textile Research Institute).

The conference was supported with guidance from Taiwan Government units such as International Trade Ministry of Economic Affaire of Taiwan, Kaohsiung City Government, and Taiwan's Ministry of Foreign Affairs.

The Conference, which have aimed to promote the further growth of all Asian Nonwovens industry, was involving the study about expansion of Kaohsiung Port with boat tour in harbor area, two times of Network Banking Dinner Party as well as wide variety of speech and presentation for whole of 2 days. At the same time the Conference was adding product presentation opportunity for 15 suppliers from the world.

Total number of attendee to ANFA Nonwoven Conference 2016 was 251 persons from Taiwan, China, Japan, Korea, India, Hong Kong, Indonesia, Belgium, USA, and Finland.

ICERP 2017
10-12 January, 2017
India

The International Conference and Exhibition on Reinforced Plastics (ICERP) event is organized once in every two years by FRP Institute, a not-for-profit professional society of the Indian composites fraternity. The first event on the ICERP series was held in 2002. ICERP 2017 is the 8th in the series and was held during 10th to 12th January 2017 at Bombay Exhibition Centre, Mumbai, India. ICERP event is the Asia`s second biggest event on Composites.

One of the highlights of the event was that it was inaugurated by Honorable Shri. Manohar Parrikar, Defence Minister of India on 10th January 2017. Shri Manohar Parrikar in his address to the composites professionals said that the Government of India's Make in India initiative will create new business opportunities for the composites industry in India and Composite Materials are considered as strategic materials system.

There were 108 exhibitors including 28 foreign exhibitors participated in the event and the exhibitors profile include the entire value chain in the composites from raw materials manufacturers to finished product manufacturers. In the conference programme 30 technical papers were presented and experts from India and abroad presented papers on the latest developments on composites.

To Promote and encourage innovations on composites carried out in India, FRP Institute in association with JEC Composites, France presented innovation awards during ICERP 2017 event. There were 10 innovation awards given during the event in various categories. The ICERP 2017 event was successful in bringing together all stake holders of Indian Composites Industry under one platform and highlighted the opportunities available in the Indian market. The event has created new networking & business opportunities for the Indian Composites Industry & it is expected that there will be significant growth for the Industry in coming years.

Inaugural Ceremony


Exhibition Hall


Business Interactions

OUTLOOK™ Plus Latin America 2017
07-09 March, 2017
Brazil

The two global nonwoven trade associations, EDANA and INDA, closed the second edition of OUTLOOK™ Plus Latin America conference in São Paulo, Brazil, thanking participants for their overwhelming support, which encourages them to consider a bright future for this event. With a comprehensive conference programme and networking activities to encourage interaction, participants confirmed the event as an indispensable opportunity to bring the global industry together at the heart of Latin America.

Opening the conference, keynote presenter Welber Barral, Ph.D., outlined with clarity the challenges and opportunities for foreign direct investment in Brazil. Barrall outlined the hurdles, from customs tariffs to bureaucratic formalities, and advised patience and persistence with optimism for gradual improvement.

Presentations on market, product, and technology intelligence for hygiene and personal care were the focus of the first two days. Market leaders in the nonwoven and film markets for these products also shared their vision of the future. The regional demographic and consumer trends of relevance to the industry were highlighted throughout the conference. A session on the third and final day was dedicated to the use of nonwovens in healthcare and infection prevention applications and future opportunities.

More than 270 participants joined the conference and more than 25 companies took the opportunity to promote their products and services through tabletop exhibits.

"This is a great conference for us and a good time for Ontex as we now have operations in Brazil. We learned a lot about the country, the markets and the hygiene products serving them," said Bart Waterschoot, Group Sustainability and Scientific Affairs Manager, Ontex.

"Many of the speakers confirmed the previous conference's description of exciting market opportunities, acknowledging the impact of the economic downturn but also illustrating the resilience of the Latin American markets, and their variety, which is well understood by participants in the supply chain." said Richard Company, Managing director, Clopay Brazil.

"EDANA is pleased to cooperate with INDA in helping the industry to make the best of those opportunities and together to continue to cater to the networking needs of all industry participants across the supply chain," said EDANA's chair Martin Rapp, Senior Vice- President & Composite Fibers Business Unit President, Glatfelter. INDA and EDANA would like to thank ABINT for helping promote the conference.

Additional information about future events from the associations can be found on the INDA and EDANA websites: www.inda.org/inda-events/ and http://www.edana.org/educationevents/conferences-and-symposia

Medical Textiles

Denmark: Abena Invests in Silicon Valley Based MediSens Wireless to Introduce the World's First Intelligent Diaper for Everyday Use

An intelligent diaper for everyday use, which alerts the care staff when the diaper needs changing, is now being introduced for the first time. It is Danish manufacturing company, Abena who is behind the World's first intelligent diaper for everyday use in co-operation with Silicon Valley based MediSens Wireless.

In most nursing homes, between 40 and 60% of residents suffer from urinary incontinence – involuntary urine leakage. This has huge impact for residents, both physically and mentally, and requires a significant amount of resources from the care institution. The new intelligent diaper, Abena Nova, supports caregivers in nursing homes and special needs facilities to provide better and more personalized care to people with urinary incontinence. The real-time actionable insights from the Abena Nova solution enables caregivers to better plan and provide personalized care based on the individual's needs. At the same time care staff gain insight into the incontinence pattern of the resident to plan and improve toileting and personal hygiene.

Sweden: SCA Invests to Further Strengthen Tissue Operations in Mexico and Baby Diaper Operations in Europe

To further strengthen competitiveness and enable future growth in the tissue operations in Mexico, SCA has decided to invest about USD 105m (approx. SEK 950m) in one of the company's facilities in the country. To strengthen its baby diaper product offering in Europe, SCA has also decided to invest about EUR 40m (approx. SEK 380m) in facilities in Europe. The investment in Mexico will support SCA's high-quality tissue offering under the Regio brand. The investment is aligned with the company's strategy to streamline production and secure capacity for future growth in order to increase value creation in the Tissue business area. SCA is a leading global hygiene and forest products company. The Group develops and produces sustainable personal care, tissue and forest products.

Medical Textiles

U.S.A.: KRG Capital Portfolio Company, Vention Medical Enters into Agreements to be Acquired in Two-Part Transaction

Vention Medical, a KRG Capital Partners Fund IV portfolio company & integrated services provider for the design, engineering & manufacturing of complex medical devices & components, has entered into merger agreements with separate buyers to sell the business in a two-step transaction. The Advanced Technologies segment will be acquired by Nordson Corporation, the leader in precision dispensing, fluid management, and related technologies and the Device Manufacturing Services segment will be acquired by MedPlast, Inc, a global services provider to the medical device industry. KRG expects the closing will occur in the second quarter of 2017.

Belgium: Ontex Wins Product of the Year Award with iD for men, Disposable Pads

Ontex' brand of disposable pads for men has been voted as 'Product of the Year 2017' by a large panel of consumers in Belgium. With 'iD for men', Ontex breaks the taboo of involuntary urine leaks – a condition that affects 1 out of 9 men over the age of 50 years. 'Product of the Year' is the world's largest consumer-voted award for product innovation arranged by Voted Product of the Year Worldwide S.A.

Bladder weakness is not that uncommon. Worldwide, almost 10% of the male population over 50 suffers from this condition. Daily activities such as going for a walk, shopping or exercising, but also socializing or being at work, can be limited through this inconvenience, often leaving the affected person with a feeling of embarrassment or frustration. Ontex responds to these needs with 'iD for men' range & at the same time the Ontex Group successfully breaks the taboo surrounding this unpleasant yet common phenomenon. Therefore, winning the Product of the Year award, does not only show that consumers are longing for protection and security, but also shows the product does the job. 'iD for men' is a discreet & functional solution for men with light to moderate urinary losses. It has been developed paying extra attention to the physical and emotional implications of all levels of incontinence. With a range of absorbencies and sizes available that suits different needs, the product offers both comfort and maximum protection. Besides being latex-free, the iD pads are designed with an Odour Control Technology system alongside a Power Dry Technology to regain freedom and self-confidence for active men.

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Medical Textiles

U.S.A.: World of Wipes Innovation Award® Finalists are Changing the Face of the Wipes Industry

Competition for the 2017 World of Wipes Innovation Award® has been narrowed to three finalists and attendees at the World of Wipes® International Conference June 12-15 in Nashville, Tennessee will have key deciding votes in selecting the winner.

The companies in the running for the prestigious award presented annually by INDA are: Berry Plastics' Chicopee® Microfiber Floor Care System, Elsner Engineering's Glueless Tail Tie for rolled wipes and Kimberly-Clark Corporation's Huggies® Natural Care Extra Sensitive Baby Wipes.

The products all address previously unanswered needs in the marketplace. They include Chicopee's disposable microfibre mop that makes cleaning more hygienic, safer, and economical for facility managers; Elsner's glueless rolled wipes production option that helps eliminates material compliance issues for wipes manufacturers; and Huggies wipes that address neonatal intensive care unit (NICU) nurse concerns for the fragile, compromised skins of premature infants.

U.S.A.: Kimberly-Clark's Kleenex® Exfoliating Cushions Voted Product of the Year 2017

Kimberly Clark's Kleenex® brand, the inventor of the facial tissue category and trusted for its exceptional fabric technology, announced that its Exfoliating Cushions has been named 'Product of the Year' for 2017 within the Skincare Category. 'Product of the Year' is the world's largest consumer-voted award for innovation. Kleenex Exfoliating Cushions utilize an exclusive combination of dual-sided, multi-layered fabrics paired with a gentle cleanser to polish and exfoliate the skin, revealing a healthy, radiant look from just one use. Exfoliating Cushions are made for all skin types, are hypoallergenic and dermatologist tested.

Japan: Start-up of New Production Facility for Bemliese™

Asahi Kasei's Fibers & Textiles SBU completed the addition of new production facility for Bemliese™ cupro continuous-filament nonwoven fabric in Nobeoka, Miyazaki, Japan. Commercial operation of the new facility began on February 1, 2017. Bemliese™ is the world's only cupro continuous-filament nonwoven fabric. It is composed of regenerated cellulose fiber made from cotton linter, the fibers around cotton seeds. These natural origins make Bemliese™ the ideal material for a wide range of applications—in the skincare and medical fields, as wipers for industrial and commercial use.

Bemliese™ is enjoying particularly strong demand growth in skincare applications. As such demand growth is forecasted to continue, the decision was made to construct a new production facility. With the completion of the new facility, production capacity for Bemliese™ increased by approximately 1,500 tons/year.

Moving forward, the Fibers & Textiles SBU will continue to expand production capacity and enhance the production infrastructure in order to strengthen the Bemliese™ supply configuration in line with additional growth in the global market.

Technical Textiles

Germany: Debut of Carbon Dioxide as Raw Material

Covestro begins delivery of first CO_2-based polyol product. Covestro has now officially started production in the plant it inaugurated in Dormagen this past summer. The plant uses the climate gas to produce a key component for foams used in mattresses and upholstered furniture.

The CO_2 serves as a new raw material, replacing a portion of the petroleum on which the precursor is usually based. Covestro is also striving to use carbon dioxide for the manufacture of other products besides flexible foam.

The company is also willing to license the technology. With 2015 sales of EUR 12.1 billion, Covestro is among the world's largest polymer companies. Business activities are focused on the manufacture of high-tech polymer materials and the development of innovative solutions for products used in many areas of daily life. The main segments served are the automotive, electrical and electronics, construction and the sports and leisure industries.

U.S.A.: 3D Printing with High-Performance Carbon Fiber

Lawrence Livermore National Laboratory (LLNL) researchers have become the first to 3D print aerospace-grade carbon fiber composites, opening the door to greater control and optimization of the lightweight, yet stronger than steel material.

The research, published by the journal Scientific Reports represents a "significant advance" in the development of micro-extrusion 3D printing techniques for carbon fiber, the authors reported.

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Technical Textiles

"The mantra is 'if you could make everything out of carbon fiber, you would' - it's potentially the ultimate material," explained Jim Lewicki, principal investigator & the paper's lead author. "It's been waiting in the wings for years because it's so difficult to make in complex shapes. But with 3D printing, you could potentially make anything out of carbon fiber." Carbon fiber is a lightweight, yet stiff and strong material with a high resistance to temperature, making the composite material popular in the aerospace, defense and automotive industries, and sports such as surfing and motorcycle racing.

India: BASF Group Inaugurates New Innovation Campus Asia Pacific in Mumbai, India

BASF Group has inaugurated its new Innovation Campus Asia Pacific, located in Mumbai, India. The project will involve a total expected investment of up to €50 million from BASF Group, and marks the Group's largest research and development investment in South Asia. All global research operations at BASF Innovation Campus Asia Pacific (Mumbai) will be housed under BASF Chemicals India Private Limited, a 100% subsidiary of BASF SE. The new innovation campus will expand the company's existing R&D activities in India to include global and regional research on a wide range of specialty chemicals. Topics will cover personal & home care, process development, organic synthesis, crop protection and more. The new Innovation Campus includes state-of-the-art laboratories for chemical synthesis, application and process development, as well as analytics.

Japan: Opening of NIPPON MAYER's New Development Centre

Progress needs new ideas, know-how, equipment and plenty of room to develop, which is why KARL MAYER opened a new Development Centre recently in Japan. Setting up the modern building was part of a restructuring programme implemented at KARL MAYER's site in Fukui, Japan. The restructuring & modernisation programme involved the setting up of a Centre of Excellence at this subsidiary between 2014 & 2016 for developing double-bar raschel machines and for researching into new innovations for the textile sector. NIPPON MAYER was able to demonstrate what it has to offer at an in-house show, which was held from 1-3 March 2017. This customer event is one of a series of celebrations, which was held to mark the 80th anniversary of the KARL MAYER Group, & the occasion was used to officially open the recently completed Development Centre.

Technical Textiles

Belgium: EDANA Announces Nominees for the INDEX™17 Awards

EDANA's INDEX™17 Awards are the highest accolade for the best examples of excellence in the industry, highlighting creativity and innovations from businesses of all sizes, and from all parts of the nonwovens supply chain. INDEX™17, the largest global meeting place between the players in the nonwovens supply chain and their customers, will again showcase the INDEX™ 17 Awards for "Excellence in the nonwovens and related industries". The INDEX™17 awards jury, comprised of a former senior nonwovens entrepreneur and manager, a representative of the nonwovens industry trade press, an international independent consultant and two top academic nonwovens R&D experts, met in January to select the nominees, if any, in each of the 8 Awards categories, and to choose, from this group, the winner which will remain undisclosed until the 4th April Awards Ceremony.

Nominees for each of these, in alphabetic order, are as follows:

Nonwoven Roll Goods
- Atex – 3D Scrubbing Spunbond
- Berry Plastics - NuviSoft™
- Jacob Holm & Sons - SoftFlush®

Finished or composite products made from, or incorporating nonwovens
- Glatfelter - Dreamweaver Gold™ 20 microns
- Nonwovens Innovation & Research Institute- Surfaceskins
- TWE Group - Amphibia

Raw materials or components (e.g. fibre, binder, polymer, tape), of special relevance to the nonwovens industry and related converted products
- H.B. Fuller - Conforma™
- Henkel - Technomelt®
- Magic – Spongel

Innovation in machinery of special relevance to the nonwovens industry
- Autefa Solutions – V- Jet Injector
- GDM - Rear Wing Zero Waste

Sustainable Product
- Hassan Group - Self Sufficient Relief Tents

Sustainable process or management practice
- Mobi-Air – Mobi-Chill
- Suominen Corporation - Blind Hiring recruitment process

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Construction Textiles

U.S.A.: Owens Corning Pure Safety™ Insulation is World's First to Earn Certification from the Asthma and Allergy Foundation of America

Owens Corning received asthma & allergy friendly® certification for its Pure Safety™ high performance insulation–the building products industry's first product to earn the asthma & allergy friendly® Certification from the Asthma and Allergy Foundation of America (AAFA). Pure Safety™ insulation has up to 65 percent less dust than comparable insulation & is mold & mildew resistant. "Owens Corning now joins a select group of manufacturers that are focused on product innovation to address people's exposure to allergens and irritants in their homes," said Julian Francis, president of insulation, Owens Corning. Pure Safety™ is a high performance mineral fiber insulation that is UL GREENGUARD GOLD Certified for its low volatile organic compounds emissions and is UL Validated Formaldehyde Free. Pure Safety™ high performance insulation is a bio-based product and meets USDA BioPreferred® guidelines and achieves a certified minimum average recycled content of 65% by SCS Global Services.

Sports Textiles

Australia: BLK Partners With Athletico Esports

Athletico Esports (an Australian Esports Media Group company) has announced its second official esports sponsorship of 2017 in a deal with BLK. The partnership, dedicated to delivering the most cutting edge apparel for Athletico Esports team members, is now the professional esports organization's exclusive provider of esports Apparel.

Clothing Textiles

Sweden: Wearable Technology to Improve Craftsmen's Health

Snickers Workwear has initiated their first project of wearable technology. 100 craftsmen across 5 countries are taking part in a test to see how wearable technology can improve working health. Wearables are electronics that can be worn on the body, either as an accessory or as part of material used in clothing. One of the major features of wearable technology is its ability to connect to the Internet, enabling data to be exchanged between a device and a network. Spurred on by the sports and fashion industry, the majority of wearables are wrist worn. But they can also be clipped to the body, hung around the neck or sewn woven into the fabrics, such as magnetic strips for measuring heart rate and temperature.

Transport Textiles

Thailand: Toyobo to Invest ¥10 Billion in Airbag Business

Toyobo Co., Ltd. will scale up its production of fabrics and yarn for automobile airbags by investing ¥10 billion in plants and equipment globally from fiscal 2017 to 2020. As the first step, Toyobo will separate the fabric production plant for airbags from the existing fabric plant in Thailand and establish a manufacturing JV company with a local conglomerate. The company plans to double its production capacity by in house production. The investment is aimed at enhancing the company's international presence by solidifying its supply of nylon filaments and fabrics for airbags in the global market.

China: IAC and Shenda Agree to Form Global Automotive Soft Trim

International Automotive Components (IAC) and Shanghai Shenda Co. Ltd. (Shenda) has signed a definitive agreement to form a global joint venture (JV) partnership to supply soft trim and acoustics products to automotive original equipment manufacturers (OEM). A UK affiliate of Shenda will acquire a 70% stake in the UK-based JV based at an enterprise value of USD $570 million. IAC will maintain a 30% interest. The JV, which will be named at a later date, expands an existing, successful JV partnership between affiliates of IAC and Shenda spanning nearly two decades. Similar to IAC and Shenda's existing JV, the new JV's management team will be comprised of experienced leaders from IAC. Its operations will include substantially all of IAC's soft trim and acoustics operations, consisting of 21 manufacturing facilities and 4 technical centers worldwide. The JV is expected to generate more than USD $1 billion in annual sales from floor carpets, acoustic insulators, package trays, trunk trim and utility flooring products.

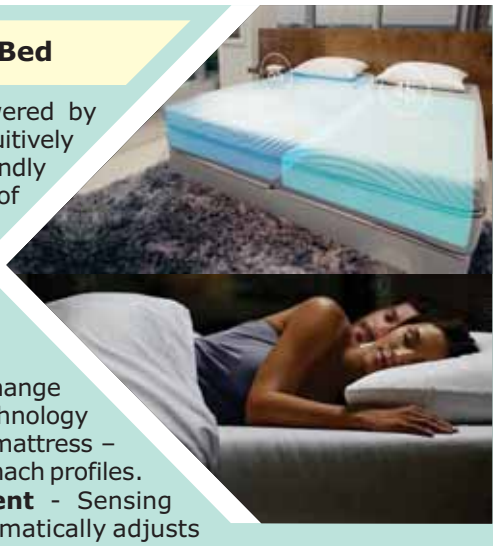
U.S.A.: Lear to Acquire Grupo Antolin's Auto Seating Business

Lear Corporation, a leading global supplier of automotive seating and electrical systems, has signed a definitive agreement to acquire Grupo Antolin's automotive seating business. Headquartered in France with sales and operations concentrated in 5 countries in Europe, Grupo Antolin's seating business is comprised of just-in-time seat assembly, seat structures & mechanisms and seat trim, and is well positioned among the largest European automakers. ■

Product in Focus

Sleep Right, Sleep Tight

Sleep Number Introduces the Sleep Number 360™ Smart Bed



Sleep Number has introduced the Sleep Number 360™ smart bed, powered by SleepIQ® technology – the latest in biometric sleep tracking – this bed intuitively senses and automatically adjusts comfort to keep both partners sleeping soundly all night. The smart bed was named the CES Innovation Awards "Best of Innovation" Honoree in the Home Appliances category, an award given to only the highest-rated product or technology in the category. The Sleep Number 360 smart mattresses offer a smarter way to sleep by delivering an optimized sleep experience with exceptional comfort.

New features include:

Self-adjusting comfort throughout the night - As sleep positions change during the night, each partner can sleep comfortably. ResponsiveAir™ technology adjusts the bed's comfort in real time via the two air chambers inside the mattress – gently contouring to each partner's side, back or stomach profiles.

Automatic snore detection and adjustment - Sensing SleepIQ® biometrics, the adjustable base automatically adjusts to each sleeper's ideal position throughout the night. For example, if someone is snoring on their back, the base automatically raises the snorers' head seven degrees to help temporarily relieve the symptoms of common, mild snoring in otherwise healthy adults.

Foot-warming to fall asleep faster - Research shows that people fall asleep faster when their feet are warmed. The smart bed knows a sleepers' bedtime routine and warms the foot of the bed automatically with Rapid Sleep Onset™ technology.

Smart alarm feature awakens at the optimal moment - The newest advancement of SleepIQ technology understands a sleeper's bedtime routine & knows when they would like to wake up. For eg, an alarm will sound when they are in their lightest stage of sleep during desired wake-up time window.

Sleep Number will phase in the new beds and bases in all Sleep Number® stores and online, beginning in the first half of 2017. The Sleep Number 360 smart beds and bases will be priced similar to Sleep Number's current mattresses and adjustable bases.

Pillows and Duvets - Breakthrough Solution for Items Filled with Feathers

Pillows and duvets made of feathers and down are extremely comfortable and provide a feeling of top of the range bedding. But this sensation of well-being can quickly be spoilt by escaping down and dust, not to mention the discomfort generated by the feathers with their sharp tips poking through the fabric. Super-microfilament textiles- the latest in the Evolon® product range - are the new technical and eco-friendly solution for pillows, duvets, sleeping bags and other quilted products filled with feathers and down.

With a structure of closely entangled super-microfilaments which are up to 200 times thinner than a human hair, weighing less than 130 gsm, the new Evolon variant is a high density cover fabric which prevents any loss of filling from even the finest layer of down. Furthermore, the fabric is breathable, light, soft & drapable. The moisture generated by perspiration during sleep is quickly evacuated. Evolon is well-known for being a natural physical barrier against dust mite allergens. As a result, Evolon also filters residual dust from feathers & down which could escape from the pillow or duvet. Bedding hygiene is considerably improved. The filtration quality of Evolon is strengthened with each washing. Unlike traditional textile covers with weave that can loosen & allow the down to escape, repeated washing causes the multidirectional, microfilament structure to tighten up, thereby reinforcing the barrier effect provided by Evolon.

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Product in Focus

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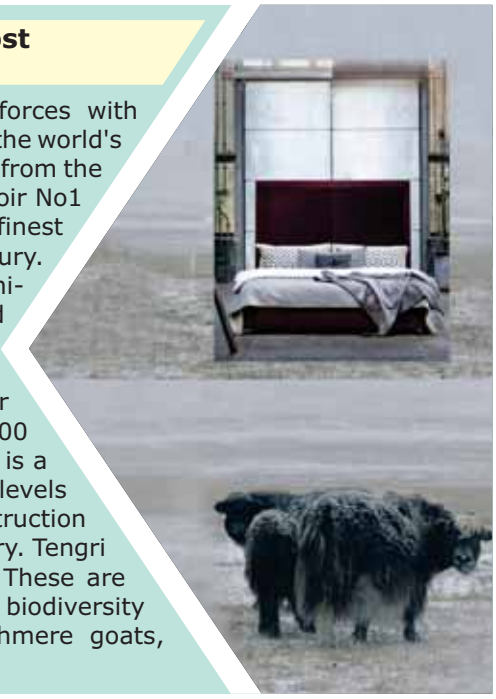
Under Armour Uses Infrared for "Recovery Sleepwear"

Under Armour has unveiled a range of nightwear designed to help athletes maximise their recovery while sleeping. The range was developed in collaboration with American Football player Tom Brady. Tom Brady has built his career on excellence. A critical piece to sustaining his peak performance has been recovery, with a particular focus on sleep. Under Armour has used that insight to create the world's most advanced sleep system that actually rebuilds the body while it is at rest. The key is the print on the inside of the Athlete Recovery Sleepwear, which leverages the power of Far Infrared. Far Infrared is a type of energy on the infrared spectrum that has several benefits for the human body. The goal was to harness the body even when it is at rest. The soft bioceramic print on the inside of the garment absorbs the body's natural heat and reflects Far Infrared back to the skin. This helps the body to recover faster, promotes better sleep, reduces inflammation, and regulates cell metabolism.

Emirates Introduces "Moisturising Pyjamas"

Emirates have launched "the world's first moisturising sleepwear for the skies", which are offered to passengers flying overnight. The new pyjamas for First Class customers travelling on overnight flights use Hydra Active Microcapsule Technology to keep the skin soft while flying. The fabric gently releases naturally nutrient rich sea kelp as one moves around, preventing dehydration and stimulating circulation. Hydra Active sleepwear has been designed specifically to help combat dry skin during air travel where humidity levels can plummet from 80% to 20%. The range of sleepsuits are infused with patented silver technology from Celessence and microcapsules of nature's purest, most efficient moisturisers and skin conditioners. Carefully crafted using a combination of hydrating active ingredients, including Aloe Vera and Sea Kelp, containing over 50 essential nutrients, the sleepsuits continue to help keep skin feel moisturised for at least 10 washes following a flight.

Tengri X Savoir Beds Collaboration Introduces World's Most Luxurious Bed Made from Noble Yak Fibres



British fashion brand and noble yarn specialist, Tengri, has joined forces with prestigious bed maker, Savoir Beds, to develop a bespoke edition of one of the world's most coveted beds. Made with Tengri's premium yak fibres, hand-combed from the noble creatures of the mountainous Khangai region in Mongolia, the Savoir No1 Khangai will offer the signature sleep experience of one of the world's finest handcrafted sleep systems, combined with the ultimate in sustainable luxury. Eight kilograms of noble yak fibres, hand-combed from 80 indigenous semi-wild yaks from the Khangai in Mongolia will fill the legendary topper and mattress system. Khangai yak have hair with unique textures and colourings found only in animals native to this region, where they graze on mineral-rich grasslands. It's a fibre that is as soft as cashmere, warmer than merino wool and naturally odour and water resistant. With only 100 grams of fibre available from each yak per year, the Savoir No1 Khangai is a precious investment. Taking the the art of fine bed-making to unimagined levels of comfort and luxury, the new bed is inspired by designs and construction methods dating back to the halcyon days of Edwardian glamour and luxury. Tengri champions sustainable manufacturing using prestige noble yak fibres. These are hand-combed from an indigenous breed of yak which has less impact on biodiversity than non-indigenous and domesticated animal species, such as cashmere goats, introduced and bred for their fibres. ■

Biomass Balance: Driving the Use of Renewable Feedstocks in Interlinked Chemical production

BASF's Approach and Contribution to the Hygiene Market

Marianna Pierobon, Global Marketing & Sustainability Manager, Hygiene Business, BASF SE

Motivation

Marianna Pierobon
BASF SE

Since several years, the interest of consumers for environmental friendly products is increasing. Absorbing hygiene products (AHP) are not an exception to this trend. BASF has confirmed this with their own surveys carried out in 2012 and 2014: end consumers rate modern baby diapers very positively regarding overall performance (features as absorption, leakage) but see major possibilities for improvement related to their environmental impact.

Diaper producers offer therefore products with low environmental impact and related claims; most concerning natural ingredients, renewable based materials and sustainable forestry (BASF market studies 2012 & 2014;Euromonitor 2015).

Renewable Based Materials in Absorbing Hygiene Products (AHP): A Challenge

AHP traditionally contain a considerable amount of renewable based materials: fluff is accounting on average for about 1/3 of diaper weight. However, its ratio is declining as superabsorbent polymers have been increasingly replacing fluff since their discovery in the 80's. The superior absorbency and water retention capacity of superabsorbent polymers is the driver that has allowed for the reduction in diaper weight and volume over the past years (EDANA 2015). In addition to the increased performance and comfort for the users, an additional benefit is the reduction of many environmental impacts, as confirmed by life cycle assessment (LCA) studies carried out by AHP producers and by the European commission (Cordella et al., Weisbrod et al.). Therefore, a challenge for absorbing hygiene products remains: *"Is it possible to decrease the use of fossil derived materials, and further improve LCA metrics (e.g. the impact on climate change)? What are feasible alternatives without compromising on the performance and functionality of modern diapers and adult incontinence products?"*

Although absorbent polymers based on starch have been on the market for some years, the majority of absorbent hygiene products relies on Na-polyacrylate based superabsorbent (EDANA 2015).

A drop-in solution, i.e. a Na-polyacrylate based superabsorbent with superior performance but reduced dependency from fossil raw materials would be the perfect solution and BASF can provide it. A BASF wide project offers a complementary approach to bio-based solutions: the Biomass Balance approach (former Mass Balance approach) drives for the substitution of fossil resources and the reduction of greenhouse gas emissions with potential immediate introduction to the market.

Biomass Balance: A Novel Approach

This approach (https://www.basf.com/biomassbalance), introduced in 2013, allows for the combination of BASF's unique interlinked chemical production, and its major benefits, like high energy and resource efficiency, with the use of renewable raw materials. The special feature of this approach is the use of both types of raw materials, fossil and renewable, together at the beginning of the value chain, i.e. in the production of the basic chemicals.

By purchasing the Biomass Balanced products, customers help conserve fossil raw materials and reduce greenhouse gas emissions, without having to change their productions processes or formulations. For the first time, BASF makes it possible for customers to secure highly efficient Na-polyacrylate based superabsorbents, while driving the use of renewable feedstock and contributing to the recycling of organic waste materials.

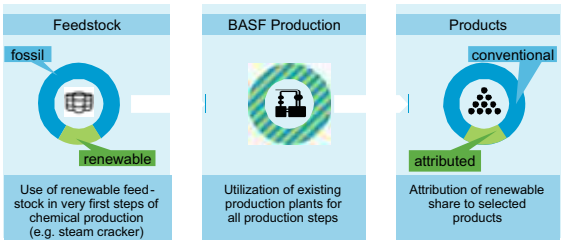


Fig 1: Principle underlying the Biomass Balance Approach

Specifics of the Biomass Balance Approach

Different to bio-based products (e.g. ASTM D6866, CEN 411), which are defined by the content of renewable feedstock in the end product, the Biomass Balance concept is focusing on the amount of renewable feedstock used in production and thus, the savings in fossil raw materials. BASF feeds a combination of fossil and renewable feedstocks into its complex integrated production system.

The path of the renewable feedstock cannot be physically separated or conveyed to specific products and the renewable feedstock spreads over many thousands of the company's products. As a consequence, the Biomass Balanced products do not themselves necessarily have to contain bio-based carbon verifiable with the ^{14}C radiocarbon method. The certified products are chemically identical to the fossil-based analogues with no need of any changes in our customers' processes.

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Certification

An important criterion for the acceptance of this Biomass Balance approach is the verifiable use of defined starting materials and their traceability through to the customers. Therefore, BASF worked together with a German certification body, the TÜV SÜD, to define a standard for this innovative approach. The resulting standard CMS 71 (www.tuev-sued.de/rr-id) is available to any company that wants to apply this approach.

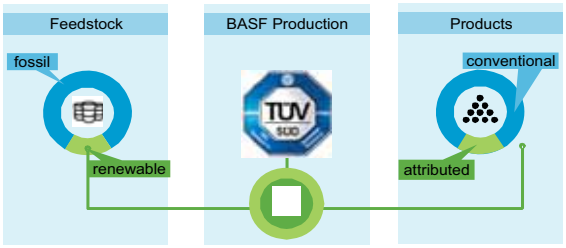

Fig 2: Certification of Biomass Balanced Products by TÜV Süd

A documentation system is required along the value chain: a closed chain of custody from the renewable feedstock through to the final product. The attribution of the renewable raw material share to the Biomass Balanced products is done according to the calculation rules defined in the CMS 71 standard. Independent audits confirm that BASF has replaced the required quantities of fossil feedstock for the sold Biomass Balanced product with renewable feedstock in the production site.

Sustainability of Feedstock

Renewable feedstock are not per definition more sustainable than fossil alternatives. Therefore, the CMS 71 standard requires the renewable feedstock, e.g. bio-naphtha or biogas, derived from organic waste or vegetable oils, to carry a sustainability certification. For example, all the certifications recognized by the European Renewable Energy Directive are accepted. Thus, the following criteria apply to the renewable feedstock: reduction of greenhouse gas emissions, environmental and social responsible biomass production, protection of areas with high biodiversity value, and protection of land with high carbon stocks.

A Broad Offer of Biomass Balanced Products

Several BASF production sites are certified according to the standard, including BASF's superabsorbent production sites of Antwerp (Belgium) and Mannheim (Germany). This provides enormous flexibility as BASF can offer all HySorb® grades produced at those sites as Biomass Balanced products to customers, including the new BASF technology SAVIVA®.

Sustainability Assessment of Biomass Balanced HySorb®

The Biomass Balance approach is ensuring the same product performance as standard Na-acrylate superabsorbent and our customers do not need to change anything in their production lines.

By selecting renewable feedstock with lower greenhouse gas emissions compared to the fossil alternative, the carbon footprint of certified products decreases compared to the fossil products depending on the specific recipes and production processes.

In the case of Biomass Balanced HySorb®, BASF has carried out a Life Cycle Assessment, confirming a significant positive impact on climate change compared to the fossil counterpart and a reduction in the consumption of fossil resources. Other LCA categories show an impact increase as typical for several renewable raw materials (e.g. eutrophication): the specific results depend among others on the ratio of vegetable oil vs. waste derived feedstock in the bio-naphtha supply.

Achievements

In 2016, important milestones have been achieved.

The industry association Plastics Europe has established a working group on biomass sourced chemical production and products. Several companies participate in the group (e.g. SABIC, DuPont, BASF) and the goal is to develop a self-declaration document that describes the common ground of their approaches.

In the hygiene industry, ecolabels are one important tool to highlight products with specific environmental benefits. The updated criteria for sanitary products of the Nordic Ecolabel, one of the ecolabels with the longest tradition, have been published in 2016 (Version 6.0). A novelty is that mass balance systems are now approved under two conditions:

(1) The renewable raw material must be used in the production of products, not as an energy source.
(2) The mass balance must be controlled and certified by an independent third party.

The BASF Biomass Balanced HySorb®satisfies both conditions and therefore can be considered by customers for fulfilment of the criteria for sanitary products, increasing their flexibility in diaper design.

Last but not least, after successful commercial implementation of the Biomass Balance approach in several industries (coatings, construction, packaging) and regions, BASF has already achieved the commercial delivery of Biomass Balanced HySorb® to various customers.

Biomass Balance One Step Forward on the Journey of Sustainability

BASF is confident that this solution can help many customers to develop further their sustainability and marketing strategies, offering new solutions for the use of renewable feedstock in the hygiene industry. ■

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Eucafluff-A Sustainable Option..

...*for the Disposable Hygiene Industry*

Sustainability is a concept that encompasses social, environmental and economic aspects and leverages the capacity of growth cycles to renew perpetually. Guided by this concept, making pulp and paper on a global scale represents a company's capacity to adjust its operations to the availability of natural resources and to the situation of local communities.

To balance these three aspects, capturing productivity gains has become a priority among global industries, particularly Brazilian pulp and paper producers. Making more with less in terms of resources makes an operation more economically viable and reduces the need for planting forests on new land. So thanks to productivity gains and a six-year harvest cycle, compared to 70 years in Scandinavian countries, world eucalyptus pulp production is growing five times faster than softwood pulp production.

The increased competitiveness of eucalyptus cultivation assures people around the world access to, for instance, superior quality tissue/sanitary papers and printing/writing papers. Now, the sustainability of eucalyptus cultivation has been incorporated into the production of fluff pulp, which is used to make baby and adult diapers, sanitary napkins, underpads amongst other products.

EUCAFLUFF, the world's first commercially available BEKP hardwood fluff pulp was developed by the Brazilian company **Suzano Pulp and Paper**, the world's second-largest eucalyptus pulp producer. Just like what happened with tissue and printing/writing paper in the past, this development will help more people around the world to gain access to more sustainable products in the future.

Eucalyptus pulp has many sustainable advantages all of which have been described below in this article in the form of queries and answers.

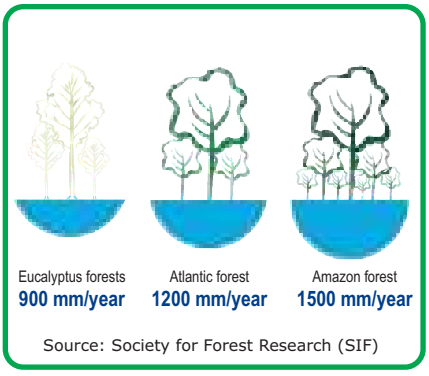
Do eucalyptus plantations dry up the soil?

Actually, the opposite is true!

With proper management, eucalyptus forests consume less water than native forests. Below is the water consumption comparison:

1. Amazon forest : 1.500 mm / year
2. Atlantic forest : 1.200 mm / year
3. Eucalyptus forests: 900 mm / year

This expressive advantage comes from the fact that Eucalyptus forests are planted in mosaic patterns. These forests protect more sensitive areas, such as natural springs, riverbanks, lowlands and wetlands. This practice ensures that the impacts on ground water and waterways are minimal and constantly monitored through experimental micro-basin studies and assessments.



Source: Society for Forest Research (SIF)

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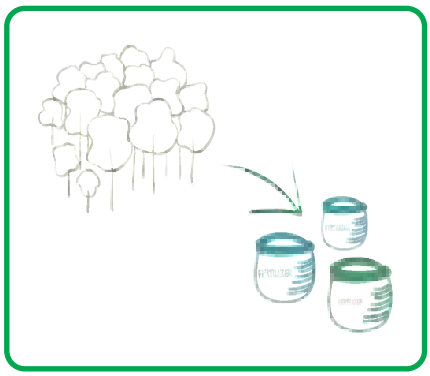


Do eucalyptus plantations impoverish the soil?

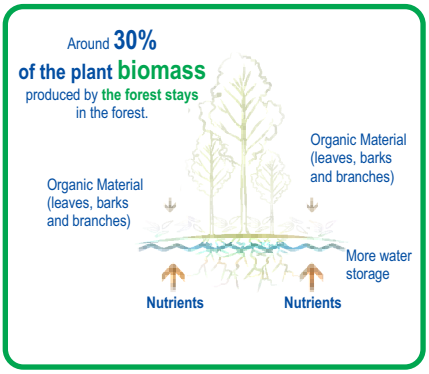
No, they rebuild soils!

The root systems of eucalyptus trees and the nutrient regeneration from falling leaves, bark and small branches, as well as waste from harvest activities, enables these nutrients to remain near the soil surface, which helps enrich and build the soil. These residues, combined with minimum tillage techniques, help rebuild soil fertility through the incorporation of organic matter and supplemental soil amendments. For each ton of wood produced, nearly 300 kg of waste, rich in minerals and organic matter, are left behind in the production area, which resupplies a considerable amount of nutrients and organic carbons. This material promotes the development of micro-organisms, protects the soil from erosion and conserves moisture in the soil.

Do eucalyptus plantations require large amounts of fertilizers?

No. Only what is necessary and for a short span of time

The use of fertilizers for wood production at Suzano is fully monitored, with additives applied through the third year of the cycle. The bark, leaves, and branches remain in production areas, which enriches the soil with humus and nutrients (minimum tillage techniques) and promotes the reuse of nutrients by the forest, cycle. Eucalyptus plantations use less than 15% of total fertilizer used on the other crops such as corn and soy.



Good practices certification

Around 110 rural producers in Mucuri, Bahia, are certified by the Forest Stewardship Council® (FSC®), which assures the traceability of pulp production, starting with raw material, based on rigorous criteria including good social, environmental and economic practices.

Does eucalyptus production take jobs away from rural workers?

No. It creates new jobs!

Eucalyptus farming creates new opportunities for employment and income generation through direct and indirect jobs. It also fosters an entrepreneurial spirit by promoting the inclusion of people living near cultivation areas into the production chain, either as wood suppliers or as wood consumers for making furniture and packaging, for instance. Suzano also focuses on forging forestry partnerships with rural producers and service providers, through social projects, by targeting the multiple uses of eucalyptus, including community-based beekeeping etc.

Does eucalyptus cultivation affect global warming?

Yes! By preventing it!

Growing forests absorbs significant amounts of carbon dioxide from the atmosphere, mitigating one of the main causes of the greenhouse effect. Most of the energy used in our production units is renewable, generated from residues in the pulp production process. Suzano was the world's first pulp and paper producer to obtain the International Carbon Trust seal for its products, which ratifies its commitment to reduce the carbon footprint of its products. ■

Brazil, planted forests absorb one billion tons of CO_2 from the atmosphere during photosynthesis, which makes an important contribution to mitigating the effects of global warming

Source: Ibá - Brazilian Tree Industry

The Disposable Hygiene Industry
Moving & Grooving

Ontex to Acquire the Personal Hygiene Business of Hypermarcas

Ontex Group NV has entered into an agreement to acquire the personal hygiene business of Hypermarcas S.A. for an enterprise value of R$1 billion (€286 million). HM personal hygiene is the market leader in the adult incontinence category and holds a solid number 3 position in Babycare in Brazil, the 4th largest hygiene market in the world.

The acquisition of HM personal hygiene supports the Ontex strategy by extending their market position in the Americas to Brazil, increasing sales from Ontex-owned brands, and accessing a fast growing market for adult incontinence. Over the past twelve months, HM personal hygiene has generated revenues of approximately R$1.2 billion (€343 million) in the growing babycare and adult incontinence categories in Brazil, with a portfolio of strong local brands including PomPom, Cremer, Sapeka in the Babycare segment and BigFral & AdultMax in the Adult Incontinence segment. Ontex CEO Charles Bouaziz commented, " Following the successful integration of Grupo Mabe in Mexico, adding this business to our Americas Retail Division will give us strong positions in 2 of the top 5 personal hygiene markets in the world".

SCA to Acquire BSN Medical, a Leading Medical Solutions Company

SCA has entered into an agreement to acquire BSN medical, a leading medical solutions company, from the private equity group EQT. BSN medical develops, manufactures, markets and sells products within wound care, compression therapy and orthopedics. The purchase price amounts to EUR 2,740m on a debt- and cash-free basis. The completion of the transaction is subject to customary regulatory approvals. Closing is expected to take place during the second quarter 2017.

BSN medical is an innovative medical solutions company with well-known brands such as Leukoplast, Cutimed, JOBST, Delta Cast, Delta Lite and Actimove which are long established brand leaders in their key markets. BSN medical has a strong go-to-market and supply chain with sales in more than 140 countries and production in 11 countries. "This acquisition will significantly strengthen SCA's customer offering, channel presence and market access. This will further strengthen and develop SCA's global market leading position within incontinence products under the TENA brand. " says Magnus Groth, President and CEO, SCA.

Drylock Technologies Takes Over Presto Absorbent

Drylock Technologies has acquired 100% of the business of Presto Absorbent Products Incorporated (PAPI) in Eau Claire, Wisconsin (USA). PAPI is a well-respected innovator and manufacturer of adult incontinence products, serving preeminent institutional and retail distributors in the US.

Bart Van Malderen, CEO of Drylock Technologies Group, comments: "This acquisition brings us significant synergies such as presence in the United States of America, product portfolio expansion, access to a very attractive customer and manufacturing base as well as a highly professional management team. The employees of Presto Absorbent Products Incorporated will be integrated in the Drylock structure, ensuring continuity of the existing business. We are convinced that this strategic acquisition will contribute further to our increasing internal growth and we welcome the customers, employees and suppliers. Like Drylock, Presto is focused on Innovation and Quality." The current PAPI facility will serve as Drylock's U.S. headquarters and operate under Drylock Technologies Ltd. This acquisition supports Drylock's ambitious 2020 plan of growth continuity.

contd...

HARTMANN Group to acquire P&G Incontinence Brand in Spain/Portugal

The HARTMANN Group, a leading international supplier of medical and hygiene products, plans to acquire Procter & Gamble's Lindor - one of the most well-known adult incontinence brands in the Spain and Portugal professional channel. The transaction seeks to take place by end of second quarter of fiscal year 2017 and is subject to approval by local antitrust authorities. As part of the agreement, HARTMANN is slated to obtain all P&G assets associated with the Lindor product portfolio (Lindor, Salvacamas, Lindor Care, Lindor Pants), Intellectual Property, contracts with employees, as well as a 25,000-square metre manufacturing facility in Montornés, Spain.

The acquisition will position HARTMANN as one of the leading suppliers for adult incontinence products in Spain and Portugal. In fiscal year 2015-2016, Lindor had sales of over €75 million. The majority of the company's sales come via the pharmacy channel, while a smaller amount can be attributed to institutions, such as hospitals and nursing homes. HARTMANN will continue to target the growing nursing home channel with more cost-efficient solutions that bring practical value to both caregivers and patients. The regional team will focus on reimbursed homecare products combined with an up-and-cross-selling approach through the pharmacy. "Eighty percent of all people in nursing homes are incontinent," said Marc Perez, regional director Western Europe of HARTMANN GROUP. "When we look specifically at Spain, these numbers are also at 80 percent. Adapting and anticipating the impact of demographic change in combination with rising rates of chronic conditions and shrinking healthcare systems has positioned us well for this strategic buy."

Startup Breathable Film Production Facilities in Thailand

Mitsui Chemicals, Inc. announced the successful February startup of manufacturing facilities for breathable films at its wholly owned Mitsui hygiene Materials (Thailand) Co., Ltd., a manufacturer and distributor of non-wovens and breathable films for use in premium diapers, to cope with growing demands throughout East and Southeast Asia. Company position their healthcare business as a targeted business domain that drives growth, in addition to Mobility and the Food & Packaging domains.

Their nonwoven business, which is part of the healthcare business sector, aims to further expand by supplying premium diaper manufacturers in the growing markets of Japan and the rest of Asia. In the premium baby diapers market, demand for Japan-made premium baby diapers and spread of premium diapers in Southeast Asia have grown significantly and the market boom is expected to continue. Group's breathable film has been widely recognized by East and South eastern manufacturers for its excellent performance and good printability, both important requirements for premium diapers, and as a result has shown healthy sales growth.

SCA to Discontinue its Hygiene Business in India

SCA has decided to discontinue its hygiene business in India. Four years after entering the Indian market, their conclusion is that profitability cannot be achieved within a reasonable timeframe. SCA prioritizes growth in selected emerging markets such as China, Southeast Asia, Latin America, Eastern Europe and Russia, where the company already holds strong market positions. Emerging markets accounted for 32% of SCA's net sales in 2015.

The total cost of the discontinuation of operations are expected to amount to approximately SEK 350m and will be recognized as an item affecting comparability in the fourth quarter of 2016. Approximately SEK 50m of these costs are expected to impact cash flow. The hygiene business in India reported total net sales of approximately SEK 110m in 2015, the majority of which related to baby diapers. The hygiene business in India will be discontinued in the first quarter of 2017. ■

Some Recent Acquisitions in the Filtration Industry

Reasons Behind these Acquisition

- **Lydall Completes Acquisition of Gutsche** : This acquisition solidifies Lydall as a global leader in industrial filtration markets & diversify Lydall into complementary geographies and attractive adjacent markets with a leading brand
- **AAF Flanders Announces Intent to Acquire Aire Filter Products**: This latest acquisition allows AAF Flanders to expand & enhance air filtration services across the western United States
- **Filtration Group Closes Acquisition of Essentra's Porous Technologies Business** :- The acquisition broadens Filtration Group's global presence by adding operations in the US, Asia and Europe
- **Hitachi Zosen to Acquire Majority Stake in Osmoflo Group**: This agreement will further enhance the combined company's opportunities in the desalination and industrial water treatment business in international markets including the Middle East
- **JWC Environmental to Acquire FRC Systems International, Expand Solutions for Industrial Wastewater**: The acquisition of FRC, expands JWC's offering of high-quality solutions for its industrial and municipal wastewater customers
- **Parker to Acquire Filtration Company CLARCOR**: This acquisition strengthens Parker's filtration business with addition of complementary product lines and markets

Lydall Completes Acquisition of Gutsche

Lydall, Inc., has completed the previously announced purchase of MGF Gutsche GmbH & Co. KG ("Gutsche") on December 30, 2016 for $58 million in cash. The Company used $32 million of borrowings from its existing revolving credit facility and the remainder was paid from cash on hand.

The transaction positions Lydall as a global leader in needle punch nonwoven filtration solutions and strengthens the Company's position as a premier provider of engineered technical materials. The acquisition expands the Company's filtration and engineered materials product offerings into attractive adjacencies and diversifies the Company's geographic revenue base.

Gutsche is a leading producer of nonwoven needle punch materials serving the industrial filtration and high performance nonwoven segments. The business consists of operations in Germany and China.

The Gutsche businesses will be integrated into Lydall's Technical Nonwovens segment. The Company plans to maintain manufacturing presence in the UK, Europe, and China and, through restructuring initiatives, to increase efficiencies and unlock operational synergies. The acquisition will be dilutive to Lydall's earnings in 2017 on an all-in basis, which includes the effect of purchase accounting, restructuring and other non-recurring expenses. The acquisition is expected to be accretive to Lydall's earnings by mid-2018.

Lydall

"The acquisition of Gutsche combines two complementary companies in the industrial filtration and technical materials markets. With the addition of Gutsche, we gain an experienced management team and an attractive footprint to serve Europe as well as secure a strong filtration position in the fast growing waste-to-energy incineration market.

In addition, we are able to complement our China-based sales with a focus on the greater Asia-Pacific export markets."

Dale G. Barnhart, President and CEO, Lydall

contd...

AAF Flanders Announces Intent to Acquire Aire Filter Products

American Air Filter Co. Inc., d/b/a AAF International, and its subsidiary Flanders Corp., announced the intent to acquire Phoenix-based Aire Filter Products (AFP), one of the oldest HVAC air filter service companies in the United States. With this acquisition, AAF International will further expand its operational footprint and enhance both the level and quantity of services that it offers in the western United States.

AFP is an air filtration solutions leader in the commercial, government and education markets with 106 employees and nine offices in Arizona, California, Idaho, New Mexico, Utah and Washington. The family-owned and operated company has served customers in the western United States since the mid-1950s. AFP has had a long-standing relationship with both AAF International and Flanders as the combined company's largest air filter distributor.

The acquisition will strategically position AAF Flanders to maximize opportunities for providing value-added air filtration solutions to the western United States and beyond.

"Our new partnership with AFP will allow AAF Flanders to continue to build up our presence in the West," said Philip Whitaker, AAF International's CEO. "AFP has been serving customers for almost 60 years. That's a terrific resource for us to tap into, and we're looking forward to combining AFP's strong distribution network with AAF Flanders' wide range of products."

AAF Flanders

"AAF Flanders is an industry leader and is steering their ship in the direction we want to go. Everyone else in the industry is trying to follow their lead because AAF Flanders has such high quality products and services with optimal total cost of ownership. So we're very excited to align our deep experience in the industry with the AAF Flanders team."

Branden Sparks, President, AFP

Filtration Group Closes Acquisition of Essentras Porous Technologies Business

After the acquisition of MAHLE industrial filtration business, Filtration Group Corporation is pleased to announce that it has closed its acquisition of the Porous Technologies business of Essentra. Plc. This move significantly broadens the company's customer base and product portfolio.

Essentra Porous Technologies' products support essential bio medical procedures such as disease detection and prevention, laboratory testing and genetic analysis. Its innovations are found in a wide range of products from electronics to household applications. The acquisition broadens Filtration Group's global presence by adding operations in the US, Asia and Europe.

Filtration Group

"The addition of the Essentra Porous Technologies business increases our capabilities for our customers. This acquisition furthers our mission of becoming an innovative global filtration solution provider."

George Nolen, CEO, Filtration Group

Hitachi Zosen to Acquire Majority Stake in Osmoflo Group

Osmoflo announced that Hitachi Zosen Corporation of Japan has entered into a definitive agreement with Shine Investments to acquire majority ownership of the Osmoflo group of companies. Osmoflo is a leading water treatment process technology and engineering company in desalination and industrial water treatment. Founded in Australia in 1991, the company has grown in other regions including the Middle East, South East Asia, India & South America based upon its reputation for high quality & performance.

The transaction will enable Osmoflo's technology to be integrated within Hitz, especially the membrane based solutions such as reverse osmosis desalination. When combined with Hitz's technology and experience, this will further enhance the combined company's opportunities in the desalination and industrial water treatment business in international markets including the Middle East.

Hitachi Zosen Corporation

"This is a fantastic moment for Osmoflo, the point when we can truly become a global business with the ability to replicate around the world our Australian successes and to promote worldwide our high-quality, competitive differentiated offering."

Emmanuel Gayan, CEO, Osmoflo

contd...

JWC Environmental to Acquire FRC Systems International, Expand Solutions for Industrial Wastewater

JWC Environmental (JWC) and FRC Systems International (FRC) have announced the finalization of the transaction for the acquisition of FRC Systems by JWC Environmental. The acquisition of FRC, a leader in industrial wastewater process design and equipment, expands JWC's offering of high-quality solutions for its industrial and municipal wastewater customers.

Since 1979, FRC Systems has been an industry leader in dissolved air flotation (DAF) systems for some of the largest industrial companies in the world. The products and expertise FRC offers have been used extensively in a variety of wastewater applications spanning the food and beverage, meat and poultry processing, and oil and gas industries, as well as a wide range of general manufacturing applications.

FRC's strong position within industrial wastewater furthers JWC's ability to provide a full lineup of products for critical solids preconditioning, pump protection and liquid/solids separation applications in multiple industries. Additionally, FRC's expertise in DAF technologies increases JWC's ability to help municipal water and wastewater customers solve challenging problems." As part of the acquisition, Adriaan van der Beek, President of FRC Systems International, will join the JWC Environmental executive team and continue to lead the ongoing business. "We are very pleased to become part of such a highly successful company which, like FRC, brings trusted wastewater solutions to the industry," said Van der Beek. "JWC provides us with an even stronger foundation to accelerate the growth of our DAF products while expanding the types of solutions we can offer our customers, like the JWC Monster grinders and wastewater drum screens."

JWC Environmental® Trust Monster Quality™

"We are excited to welcome FRC Systems International into the JWC Environmental family of companies. JWC and FRC share a similar vision of providing reliable and proven solutions to wastewater customers regardless of the industry they serve. FRC Systems represents the type of organization that complements the strategy of JWC providing best-in-class wastewater technologies while maintaining the flexibility to meet the unique challenges our customers present us."

Ken Biele,
CEO, JWC Environmental

Parker Hannifin Completes CLARCOR Acquisition

Parker Hannifin Corporation, the global leader in motion and control technologies, completed its acquisition of CLARCOR Inc., a major manufacturer of filtration products, for approximately $4.3 billion in cash, including the assumption of net debt. The strategic transaction creates a combined organization with a comprehensive portfolio of filtration products and technologies, offering customers a single streamlined source for all their purification and separation needs.

Under the definitive agreement signed on December 1, 2016, Parker has purchased all outstanding CLARCOR shares for $83 per share in cash. The transaction is expected to be accretive to Parker's cash flow, earnings per share and earnings before tax, interest, depreciation and amortization, after adjusting for one-time costs.

In the highly complementary combination, CLARCOR joins Parker's Filtration Group and provides Parker with additional proprietary media, industrial and process filtration products and technologies, as well as a broad portfolio of replacement filters. It also adds more than a dozen respected CLARCOR brands, to Parker's portfolio. In addition, Parker possesses strong relationships with original equipment manufacturers and customers in international markets while CLARCOR contributes a solid US. presence, especially for recurring sales in the aftermarket.

"The combination deeply expands our ability to help make our world cleaner and safer while equipping our team members with new opportunities to innovate and grow," said Rob Malone, Parker's Filtration Group President. ■

Parker

"This is an exciting new journey as we work together to build the next generation of filtration. Our enhanced filtration presence is expected to add resilience to our bottom line, improve operating margins, and enable us to meet long-term growth goals, strengthening our ability to achieve top quartile financial performance."

Tom Williams, Chairman & CEO, Parker Hannifin

ANEX 2018

ASIA NONWOVENS EXHIBITION AND CONFERENCE

Create the Diverse Future

Date: 2018 June. 6(Wed) - 8(Fri)

Venue: Tokyo Big Sight

***The schedule is subject to change due to Tokyo Olympic Games related constrains.**

Organized by ANFA ASIA NONWOVEN FABRICS ASSOCIATION (ANFA)
All Nippon Nonwovens Association (ANNA)

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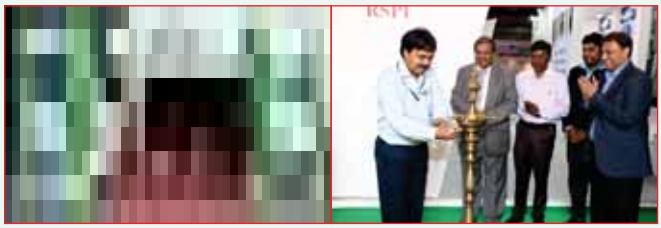
Taiwan Nonwoven Fabrics Industry Association (TNFIA) / Hong Kong Nonwovens Association (HKNA)
Korea Nonwoven Industry Cooperative (KNIC) / Indonesian Nonwoven Association (INWA)

Non Woven Tech Asia 2017

The 4th International Exhibition & Conference of Nonwoven Industry



Non Woven Tech Asia 2017 is the 4th International Exhibition & Conference of Nonwoven Industry organized by Radeecal Communications in association with gujNON Manufacturer Association of Nonwovens at Bombay Exhibition Centre, Goregaon (E), Mumbai, Maharashtra, INDIA.

This event is supported by Indian Technical Textile Association, The Bombay Textile Research Association, Centre of Excellence for Medical Textile (Coe- Medical Textiles), The South India Textile Research Association, Ahmedabad Textile Industry's Research Association, Man-Made Textiles Research Association, The Synthetic & Art Silk Mills' Research Association and DKTE's Textile & Engineering Institute (DKTE COE In Nonwovens).

Non woven tech Asia 2017 has participation from industry's leading players like Sonali Polymers Pvt Ltd, Featherfeel Nonwoven Pvt Ltd, Shree RadhaLifstyles, Prosper Choice Import Export, Flexography India Press, Vidhi Enterprise, Atlas Chemical Co., Littleberg Offset Co, Scap Technofab Pvt. Ltd., Zhejiang Yanpai Filtration Technology Co., Ltd., Fair Deal Engineers, Jk Non Woven Pvt Ltd, Bankey Bihari Packaging Pvt Ltd, N Text Machinery, Apex Non Woven Bag Pvt Ltd, MdcImpex Associates Non Woven, Khosala Profile Pvt Ltd, Sun Polybag, Bally Fab, Fine Non Woven, Arvind Og Non Woven Mamta Machinery, Gold Packaging & many more…

Nonwovens are the Next-Gen products and hence looked at as the sunrise segment in the Global Textile Industry.

Nonwoven fabrics are sheet or web structures bonded together by entangling fiber or filaments (and by perforating films) mechanically, thermally or chemically. They are flat or tufted porous sheets that are made directly from separate fibers, molten plastic or plastic film.
The Exhibition is an ideal platform to showcase the products and services of your company.

The exhibitors can expect visitor participation from Andhra Pradesh, Delhi, Maharashtra, Gujarat, Rajasthan,Telengana, Kerala, Chhattisgarh, Karnataka, Tamilnadu, Madhya Pradesh, Uttar Pradesh, Haryana, West Bengal & many other international countries also such as Belgium, China, Italy, Japan, and Switzerland.

We expect a foot fall of around 8000 visitors during this event from the following segments:

Medical and health care, Hotel Industry, Hygiene & sanitary products manufactures, Packaging industry, Schools, Luggage products, Textile and apparels, All retailers and corporates, Agriculture, Construction, Geotextile, Automobile, Filtration and separation, Shoes and leather material, Furniture and interiors, Traders and distributors, Government and public offices.

The Nonwoven Industry is set to move in only one direction that is North! Growth is inevitable. Hence, there is a lot more interest generated by business houses in Nonwovens.

Hence, by exhibiting your products and services you are not only emphasizing your brand image in this sector, but also creating the awareness of the importance of nonwovens in contemporary life. ■

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NON WOVEN TECH ASIA 2017

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Bostik to Demonstrate Adhesive's Impact on Hygiene Product Performance at INDEX17

We are present at:
INDEX 2017
Geneva, Switzerland
April 4-7
Booth No. 2138

Bostik, a leading global adhesive specialist for industrial, construction and consumer markets, will use interactive display stations to showcase its Smart@work adhesive technology and expertise in Booth #2138 at INDEX 2017, April 4-7, in Geneva, Switzerland.

Fit, absorption, softness and odor are key dynamics to manufacturers of disposable hygiene products. Bostik will demonstrate how adhesive products and process expertise can help disposable hygiene producers create better products more efficiently.

"We believe creating an interactive experience will engage our customers in discussions of how Bostik can help them achieve their goals. This is a clear focus of Bostik and an area where we believe our global knowledge and almost 50 years or disposable hygiene experience can really add value to our customers.", said Diane Toonen, Global Director of Strategic Marketing for Bostik's Global Nonwoven Division.

Darius Deak, Global R&D Director of the Global Nonwoven Division of Bostik, will also deliver a presentation on Brilliance™, a world's first in adhesive products. Deak's presentation will take place during the INDEX exhibition on Wednesday, April 5th, from 11:30 to 11:50 a.m.

Curt G. Joa, Inc. to Celebrate 85th Anniversary at INDEX™17

We are present at:
INDEX 2017
Geneva, Switzerland
April 4-7
Booth No. 4000

Curt G. Joa, Inc. will celebrate its 85th anniversary at INDEX™17, held April 4-7 in Geneva, Switzerland. Customers are invited to stop by stand #4000 to help celebrate this significant milestone and learn more about the latest technology offerings from the JOA and BIKOMA brands.

In 1930, founder and German immigrant, Curt G. Joa was given an opportunity to design an automated process to produce sanitary napkins. After demonstrating a working model of the process, he was commissioned to make the first machine on October 8, 1931. In 1932, he received his first patent and established an engineering-consulting company bearing his name.

"The idea that an entrepreneur such as my grandfather could immigrate to the United States and start a successful business during the Great Depression is remarkable," said Curt G. Joa, Inc. President Gene Kiela II. "As we enter into our 85th year, we still hold the values that he instilled – that good customer relationships lead to success."

In addition to the first sanitary napkin machine, some of the company's many pioneering accomplishments include the first JOA rotary mill, the flying splice, the vertical stacker, the Cut at Tape Speed (CATS™) Unit, the web velocity modulator, the Single Transfer Insert Placement Process (STIPP™) Unit and the No Scrap Ear (NoSE™) Unit for baby diaper production.

In their third generation of family ownership, Curt G. Joa, Inc. now includes the JOA and BIKOMA brands, with operations in the USA, Germany and India. As the company reflects on its past and looks toward the future, they will showcase their current product portfolio to demonstrate their latest technology.
"We invite producers to visit our stand and see the difference that 85 years of experience makes," said Paula Inda, Corporate Director of Global Sales & Marketing. "With our current equipment and technology, we feel that our best years are yet to come."

contd...

Osprey Corporation's New App

We are present at:
INDEX 2017
Geneva,
Switzerland
April 4-7
Booth No. 1211

Osprey Corporation will be participating in the INDEX17, the World's Leading Nonwovens Exhibition in Geneva, Switzerland. The conference will be taking place at the Palexpo located at Route François-Peyrot 30, 1218 Le Grand-Saconnex, from April 4th-7th.

Osprey strives to be the leading innovator in the nonwovens industry, & will be featuring Osprey's new app. The app contains user friendly monitoring & support for your drum filter(s). The app's benefits and features include:

- Date trending & predictive maintenance
- Fast diagnosis and troubleshooting
- Remote programming and monitoring
- Custom alerts and analytics
- Safe & secure VPN connections
- Manuals and installation videos
- Technical service requests
- Spare parts ordering

Along with the app, we will be featuring our Blue Sky Filter. There are many advantages for using the Blue Sky Filter. Some of the advantages are; highest filtration level available, increasing line speed, higher SAP content, NFPA & ATEX compliance, guarantee operation under the minimum explosible concentration (MEC), energy saving features, and Dekra certified. By utilizing the new app with our filters, you will have the cutting-edge advantage in your market from the apps ability to decrease machine downtime.

If you plan on attending the INDEX17 tradeshow, please visit our booth # 1211 to learn more about our products and services. Osprey's sales team will be at your service throughout the event. For further assistance or would like to see us at another event, you can contact us at info@ospreyfilters.com or +1-404-321-7776.

Fibertex Personal Care is Expanding to Meet Asian Growing Demand

We are present at:
INDEX 2017
Geneva,
Switzerland
April 4-7
Booth No. 1430

Fibertex Personal Care, a market leader in high quality value added spunbond/spunmelt nonwovens for absorbent hygiene products, is expanding in Malaysia. An additional Reicofil production line, the fifth line in Malaysia and the eight line in the group, will start its production in 2017. The new line will increase the company's capability for soft value added materials.

Additionally, Innowo Print – part of the Fibertex Personal Care Group, has recently installed new printing lines both in Malaysia and at its existing facility in Germany.

Fibertex Personal Care and Innowo Print will share a booth at INDEX17 in Geneva, where visitors will have the opportunity to see, feel and experience a wide selection of innovative nonwovens solutions. Fibertex Personal Care will be launching a new brand category – Fibertex Loft a new and soft addition to their range of value added materials while Innowo Print will show the latest developments.

For more information about Fibertex Personal Care and Innowo Print, please visit: www.fibertexpersonalcare.com and www.innowoprint.com

contd...

Members' Column

...contd

BCH Welcomes New Member !
H.B. Fuller

Meet the H.B. Fuller Expert at INDEX™ 17

We are present at:
INDEX 2017
Geneva,
Switzerland
April 4-7
Booth No. 2461

Following the highly acclaimed speech at Hygienix 16, H.B. Fuller steps up again, this time at INDEX™ 17. Once every three years, the entire nonwovens industry and its suppliers converge on Geneva. Offering participants four intensive days of innovative ideas and profitable opportunities, together with a concentration of business contacts in the field, it is said to be unequalled anywhere in the world. As the event unfolds, key speakers will present on the very latest advances in technology and product development. Kristy Beckman's talk is a highlight that shouldn't be missed, especially as she'll chat about our unique Conforma™ adhesive that has been shortlisted as an INDEX™ Award finalist - the highest accolade that can be given to a company in the nonwovens and related industries.

Fameccanica Introducing Easylife™

We are present at:
INDEX 2017
Geneva,
Switzerland
April 4-7
Booth No. 2651

As leader in the development of machinery for the manufacturing of hygiene products, Fameccanica now anticipates the future by offering its customers an innovative solution developed in collaboration with Microsoft. Easylife™ is a company collaboration network facilitating the management of manufacturing plants through the collection, exchange, distribution and use of ordered information. Each client has proprietary access to the data, allowing to define specific dynamics, hierarchies, and data display modes.

Maintenance is also simplified: interventions can be planned in advance, using precise and detailed information collected over each machine life cycle. Easylife™ is designed to make life easier for our clients: it is a full and efficient suite, developed by Fameccanica and Microsoft, to radically improve the manufacturing facilities management. You can know more about Easylife™, and about Fameccanica machinery range, by visiting their booth #2651 at Index17, Geneva, from April 4 to 7, 2017.

Reicofil at Index

We are present at:
INDEX 2017
Geneva,
Switzerland
April 4-7
Booth No. 2531

The German plant manufacturer Reifenhäuser Reicofil is the leading provider of PP and PET spunbond, meltblown and composite lines for nonwoven applications in the hygiene, medical, agricultural, filtration and industrial sector. Reicofil will present at Index 2017 in Geneva their latest advances in technology for the production of spunbond, meltblown and composite fabrics.

With its current developments the company is setting new standards in nonwoven quality, output, uptime and efficiency - technologies for Next Level Nonwovens. Reicofil will present new aspects of nonwoven production on stand 2531. This year again, colleagues from sister companies Reifenhäuser Cast Sheet Coating (experts for cast film, sheet and coating lines) and Reifenhäuser Blown Film (experts for blown film lines) will be available on the stand too, as they were already at Index 2014.

contd...

Members' Column

...contd

Matthews International Signs Definitive Agreement for the Purchase of Ungricht and Dornbusch

Matthews International has signed definitive agreements for the purchase of A. + E. UNGRICHT GMBH + CO KG and DORNBUSCH ENGRAVING GMBH. Both transactions, which are subject to regulatory approval in Germany, are expected to close during the first quarter 2017. Through the integration of Saueressig, as a part of Matthews International, with UNGRICHT and DORNBUSCH, we will increase our European production capacities and we will provide expanded product and service capabilities for our European and global customers.

Together, we strengthen our positions as leading providers of pre-press services and gravure printing and embossing forms. The aim of our combined teams is to determine how we can continue to improve our combined portfolio to offer you as our valued client the best service possible: from design creation and pre-press services to the delivery of rotogravure printing and embossing cylinders. As always, we appreciate your business and we look forward to a very exciting future together. We will keep you updated on our progress as one company through our sales team. Should you have any queries, please do not hesitate to contact us- *With best regards, A. + E. UNGRICHT GMBH + CO KG Roller + Engraving*

Teknoweb Converting - The Standard for Excellence in Wet Wipes Converting

Teknoweb Converting, founded in 2004, is the ultimate provider of manufacturing solutions for the wet wipes industry. Cutting-edge technology, high-speed, multi-functional design and modularity make Teknoweb Converting the standard for excellence in wet wipes converting and packaging, offering complete, trouble-free, flexible, efficient, fast and reliable production lines with the lowest TCO. From lotion preparation to case packing, Teknoweb Converting encompasses the entire cycle of transformation and represents a step forward for the entire sector.

Teknoweb Converting, collaborating directly with Ilapak and with other partners belonging to IMA group, is able to satisfy big international companies requirements, is accountable for the end result and it gets it. No other supplier guarantees such a line up and performance level. All in one, all from one.

Teknoweb Converting reaches a new standard of quality and shapes the innovation along the entire transformation process, combining converting and flow wrapping in one frame. Teknoweb Converting and Ilapak will take part with a common booth at INDEX 2017. They will show a 200 packs/min crossfold line with advanced technologies for wet wipes converting and packaging. Visitors will be able to watch a live demonstration of this line, the most efficient crossfolded wipes production platform.

Teknoweb Converting will also present a preview of "The Connected Wipes", the latest innovation in wet wipes production control. The Connected Wipes is a digital solution to simply schedule and monitor the entire production process in order to improve the efficiency of your converting and packaging line and your capacity of planning. All operating data are collected and implemented by a software embedded on the platform that releases on demand smart reports and detailed information about the state of the production to any device (PC, tablet, smartphone): a real MES in a box. An automatic tool to manage the shop floor and take always under control the performance level, reduce the waste, save time and money. ■

Symposium Organized By:

BUSINESS CO-ORDINATION HOUSE

To know more:
Visit us at
INDEX 17
4–7 April 2017
Geneva,
Switzerland
BOOTH No. 4473

How to Make the 'Right' Disposable Hygiene Product ?

December 06-08, 2017, India

Day 1 & Day 2- Enhance your Production…
…With Newer Machinery, Raw Materials & Processes


Baby Diapers


Adult Diapers


Sanitary Napkins


Panty Liners


Sweat Absorbent Pads


Wipes

The **speakers** would mainly comprise of leading manufacturers of …

- Converting machinery
- Packaging & other equipment
- Nonwovens & films
- Hotmelt adhesives
- Tapes, elastics, fastening systems
- Superabsorbent polymers
- Fluff pulp etc.

The **attendees** would mainly comprise of ...

- The manufacturers (convertors) of disposable hygiene products
- New entrants (convertors) who will be operational soon
- Aspiring entrants (convertors) who are looking at this industry
- Others

Day 3- Optimize your Production…
…With Better Know How

- **Save** raw material cost per line, per year
- Operate your machines/plant in a much **cleaner way** and with increased **overall efficiency**
- Support your organization with efforts to **produce better products** with **less weight variations**
- Operate your plant with **advanced & cost effective machinery** and produce much **thinner products** with **reduced raw materials**
- **Save** significant amount of **energy** to operate your production lines
- **And much more …**

For more details contact us at info@bch.in

Registration No:- DELENG / 2007 / 24101