INTERNATIONAL CONFERENCE ON NONWOVEN TECHNICAL TEXTILES-

Theme- NONWOVENS FOR HIGH-PERFORMANCE APPLICATIONS

Held on 6th June 2018 at MUMBAI

The Indian Technical Textile Association (ITTA) organized a one day "International Conference on Nonwoven Technical Textiles" with a focused theme on "Nonwovens for High-Performance Applications" held on 6th June, 2018, during the Non Woven Tech Asia 2018, organized by Radeecal, which was held from 6-8 June, 2018 at Bombay Exhibition Centre, Mumbai. The conference received over whelming response from the industry.

INAUGURAL SESSION

Dr. Anup Rakshit, Executive Director, ITTA, welcomed all the dignitaries, delegates and speakers on behalf of ITTA and Radeecal. He said that the topics were chosen as per the theme of the conference covering High-Performance Applications of nonwovens, spreading over 11 presentations by eminent speakers from Industry & COEs.

Mr. Sanyal Desai, CEO, Radeecal Communications and Mr. Suresh Patel, President, INDINON spoke about the issue of Ban on Nonwoven Bags in Maharashtra and how it is affected the nonwoven roll goods and bag manufacturing industry. Dr. Anjan Mukhopadhyay, Director, BTRA highlighted how the nonwovens are used in different high-tech areas like insulation material, protective suit, waste water treatment, etc. He also briefed about the R&D, testing and training facilities available at BTRA as a COE-GEOTECH.

Mr. Pramod Khosla, Chairman, ITTA, in his inaugural address, talked about the Nonwoven Tech Asia Exhibition and highlighted about the letter from Shri. Nitin Gadkari, Honorable Minister of Road Transport and Highways to Government of Maharashtra on the reverse of Ban on Nonwoven bags. He hopes that Government will not equalize nonwovens to plastics. He emphasized that nonwovens are mostly used in automotive, packaging, industrial sectors, etc. Nonwoven market is growing in Europe & USA and woven market is stabilizing & going down. India has a great hope for export more than domestic. Lastly, he thanked Radeecal for organizing the nonwoven exhibition even after the ban.

Technical Session I – "GROWTH POTENTIAL & LATEST TECHNOLIGY OF NONWOVEN INDUSTRY"

The following presentations were made during this session.

1. Emerging Opportunities in India for Nonwoven Technology and Products by Mr. Ravishankar Gopal, K's Technical & Management Consultants emphasized about the emerging technologies for Nonwoven Industry. He highlighted the different technologies i.e. Spunmelt – Spunbond, Spunlace, Thermobond, Needlepunch, Wetlaid, Airlaid, etc. He talked about the Nanofibre Spinning/Electro Spinning and new possibilities with Needlepunch. New development such as Geodetect, Wetlaid nonwoven system, etc. Investment estimates in Machinery are Meltblown Webs: 1-3M $, Melt Blown Filter and Laminating: 1-2M $, Nanofiber Webs: 2-3M $, Wetlaid Nonwovens: 5-8M $, Air Laid Nonwovens: 5-10M $ &Geocells: 2-5M $.

2. Light Weight Mobility Solutions through Nonwoven Fabrics by Dr. PKC Bose, Saertex India Pvt. Ltd. talked about the Saertex Group, leaders in advanced technical textiles made of Glass, Carbon & Aramid and have major applications in Wind Energy, Automobiles, Marine, Aerospace, Industrial and Infrastructure**.** He briefed about the non-crimp fabrics, difference between non-crimp and crimp fabrics and its advantages. Light weight mobility solutions where used by Saertex in many of their products such as composite bus and truck body, container, carbon composite used in solar vehicle, Mercedes, thruster for roll Royce, marine and railway sector and mainly used in defence industry for submarine parts, armour applications, etc.

3. Supply Chain for Nonwoven and Technical Textile by Mr. Viren Mehta, Group CEO, KP Tech Nonwoven & Bookmyparts.com. He explained about the supply chain for nonwoven & technical textile industry where nonwoven supply chain elements are materials, engineering, inventory, sales, logistics and customer. He highlighted that KP Tech has the machineries for different nonwoven products used in Packtech, Meditech, Agrotech & Hometech and Bookmyparts.com is the supplier for machine spare parts. KP Tech Group is working on the project to Produce PLA – Poly lactic Acid – the environment friendly plastics.

Technical Session II – "FILTRATION, COATING & PROTECTIVE TEXTILES"

The following presentations were made during this session.

1. Mr. Senthil Rajan, Arvind Ltd. Presented the topic on ***High Performance Nonwoven Filter Media for Hot Gas Filtration.*** He ***s***poke about the Advanced Materials like FR, woven filtration fabrics, industrial belting fabrics, nonwoven felts, etc. and also the importance of High Performance NW Filter Media. Polypropylene, Homopolymer Acrylic, Polyester, M-Aramid, Polyphenylene Sulfide (PPS), Polyimide & Polytetrafluoroethylene (PTFE) are the fibres used in Dry Gas Filtration. Types of Proprietary Finishes – Superbond & Twintech.

2. ***Latest Coating & Lamination Technology on Nonwovens*** by Mr. K. K. Baheti, Shubh Swasan, Chennai. He spoke about huge market potential of the coated and laminated textiles in India. The untapped potential of these products to be explored. First we have to understand the customers' requirements and then develop products accordingly he said. They have developed number of products using coated textiles. e.g., cold weather sleeping bags, jackets, etc.

3. ***Nonwovens for Protection against Extreme Climatic conditions*** by Mr. Vinoth Prabu, Scientist, DEBEL, DRDO, Bangalore. DEBEL prime focus is on developing life support systems and bio-medical systems for the armed forces and they services to the Army, Air Force, Navy, Para Military and NDRF. He highlighted some of the products developed by DEBEL which includes Flame retardant overall, NATO Suit, Anti Gravitational suit, Combat free fall trooper clothing system, Hydro suit for under water operation. All the products are inducted into

armed forces and bulk productionized under various capacities. The other system includes Chemical protective suit, HAPO chamber, electrically heated suit, insoles and gloves, Thermo bonded super absorbent nonwoven and evaporative cooling in Environmental chamber.

Technical Session III - "MEDICAL, HYGIENE PRODUCTS & STANDARDIZATION"

The following presentations were made during this session.

1. ***Innovations in Spunlace Nonwovens*** by Mr. A. B. Telesang, Welspun India. He highlighted the definitions of Spunlace nonwoven and key properties which makes it differ with other nonwovens. He talked about the Conventional applications such as wipes (core market of Spunlace nonwovens), medical, coating substrate, filters, hygiene and automotive headliner. He also briefed the meaning of Non-conventional (Innovations) and its applications such as refreshing, sunscreen, anti-mosquito & anti-bacterial wipes, etc., dyed/printed – table tops, composite veils, coated nonwovens, filtration, home textiles - after treatment or lamination and disposable nonwovens/ biodegradable. New emerging segment are electrical insulation paper for batteries and electrical vehicles: filters/ insulations/ cable wrapper.

2. ***Meditech Product Development in India*** by Dr. Ketankumar Vadodaria, SITRA (COE-MEDITECH) explained about the medical textiles used in the patient (Implantable), outside the patient (Non-implantable), near the patient (Devices & systems) and for the patient (Hygiene).

He highlighted that physical, chemical and biological testing is possible at SITRA. Developed products are Hernia mesh, Bifurcated Vascular Grafts, Barbed, Bi-directional surgical sutures (knotless sutures), Rotatorcuff repair devices for shoulder reconstruction. Wound dressing-Spunlace wound dressing and PCL/Herbal drug loaded nanomembrane, surgical bandages and Nanofinished woven surgical gown.

3. Current status of nonwoven Product Standardization & Testing was presented by Dr. Anup Rakshit, ED, ITTA. He highlighted the definition and different types of bonding used for the formation of nonwovens. Standardization of nonwoven is spread across various technical committees based on their applications. At present, the following committees are mainly working on nonwovens: Geosynthetics Sectional Committee, TXD 30, Industrial Fabrics Sectional Committee, TXD 33, Technical Textiles for Medtech Applications Sectional Committee, TXD 36 and Textile Materials Made from Poly olefins Sectional Committee, TXD 23. He spoke about different test methods standards on PP Nonwovens crop covers, bandage rolls, etc., and also important standards under development on nonwovens.

Technical Session IV – "GEOTEXTILES & PRODUCT DEVELOPMENT OPPORTUNITIES"

1. Growth potential of Nonwoven Geotextiles in India by Dr. M. K. Talukdar, Kusumgar Corporates. He briefed some of the nonwovens in geotechnical applications i.e. retaining wall,

drainage and filtration, drainage prefabricated composite, erosion control, asphalt overlay and landfill. He highlighted the expected global growth of geotextiles from US 5.75 bln 9(Rs 40 lakh cr) in 2017 &US 9.35 bln (Rs 61 lakh cr) in 2022 at a growth rate of 10.2%. Nonwoven Production process wise is 385 Thousand MT. There are also some of the other applications of geotextiles such as pavement overlaying and geotextiles in rail track foundation.

2. ***Opportunities in Nonwovens in India – Role of DKTE Centre of Excellence in Nonwovens*** by Mr. Aniket Bhute, DKTE (COE-NONWOVENS). He talked about the nonwoven machineries available at DKTE i.e. Needle punching line, Thermal bonding and testing facilities available at DKTE. The R&D activities of DKTE are nonwoven for drainage application, sludge de-watering filter bag, automotive fabric, geotextiles, filter fabric, geobags, Development of silver nano particle based nonwovens for various food processing industry (Especially for Milk filtration application) and Development of insulating layer for Defense application. And also highlighted the training courses available at DKTE.

FEEDBACK FROM THE PARTICIPANTS

The feedback from the participants was very encouraging and most of them mentioned that their experience was overwhelming and the participation in the Conference was very useful. The topics covered, speakers present and quality of discussion were very relevant in the context of encouraging Nonwoven Technical Textiles.


****