



**INDIAN TECHNICAL TEXTILE ASSOCIATION**

**Report on**

***“Technical Textiles – The Enormous  
Emerging Opportunity”***

**Thursday, 29<sup>th</sup> October 2015**

**At  
Hotel Aloft, Coimbatore**

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## **Background**

The Conference on “Technical Textiles – The Enormous Emerging Opportunity” was organized jointly by ITTA and CII on 29<sup>th</sup> October 2015 at Hotel Aloft, Coimbatore. The theme of the conference was on ***The Enormous Emerging Opportunity***.

India’s Technical Textile Sector is going through a very exciting phase at present. Though the market for Technical Textiles in India is nascent, the potential in the sub-sectors like Protech, Geosynthetics, Agrotech, Indutech, Meditech etc. is immense. There is equally a big opportunity for the convertor segment in the country, as the production gap between roll good manufacturers and converters is widening.

In South India, the states of Tamil Nadu and Karnataka have shown immense potential for investments in this sector. With naturally formed clusters across Tamil Nadu like Tirupur, Coimbatore, etc. the opportunity seems to be burgeoning for Technical Textiles.

## **Objective**

The objective of the Conference was to showcase the investment opportunities emerging in the Technical Textiles especially in the high growth segments such as Geotech, Agro-Textiles, Indutech, Meditech, etc. In South Indian states of Tamil Nadu and Karnataka have immense potential for investment in this sector, the knitting hub of Tirupur has opportunity to diversify to warp knitted Technical Textiles.

Eminent speakers from Textile Industry are invited to make presentations on the following topics of interest to the Industry :

- Emerging Opporunity in Technical Textiles
- Warp Knitting & Knit Finishing
- High Growth Segments of Technical Textiles

## Inaugural Session

This conference was organized jointly by ITTA and CII on 29<sup>th</sup> October 2015 at Hotel Aloft, Coimbatore. Over 150 delegates from various parts of South India attended the conference.



Dr. K.V. Srinivasan, Chairman of CII Coimbatore, welcomed the delegates and said that in India, the technical textiles sector is seeing steady growth and it is between 12 per cent and 15 per cent depending on the segment. The market size is expected to be over Rs. 1,50,000 Crores in the next two years. The investment potential is promising and in south India, Kerala and Tamil Nadu have shown immense potential for investment because of the existing textile manufacturing base.

Mr. Pramod Khosla, Chairman of ITTA, addressed the delegates and said that for the last few years, the industry has grown worldwide and the global market value for technical textiles is estimated \$144 billion in 2014 which is projected to rise to \$200 billion dollars by 2020. The compounded annual growth rate is 5.8 per cent. Woven, non-woven and knitting technologies have thrown open huge opportunities and the Indian armed forces is

also potentially a huge market for the technical textile sector. He also talked that diaper industry in India will grow from 3,500 crore to 10,000 crore in the next four years. He also said that around 300 products under the category of technical textiles will soon be classified by getting Harmonised System (HS) code. ITTA has approached the government for classification of the products and a committee has been formed to identify the products to give HS code.



Dr. S.K. Sundararaman, Chairman- Taskforce on Technical Textiles, CII Coimbatore Zone, and Vice- Chairman of ITTA addressed the delegates and said there are 12 broad segments of technical textiles. The gestation period for a technical textile project is long and investments in marketing and technology are high. The opportunities are huge and also in the Coimbatore- Tirupur region, there are around 50 companies that produce technical textiles. There already a few industries who are doing well in Industrial Textile and Medical Textile. This conference will help textile industries understand the opportunities in the various sectors of the industry.

## Technical Session I- Emerging Opportunity in Technical Textiles

The first technical session was chaired by Dr. S.K. Sundararaman, Chairman- Taskforce on Technical Textiles, CII Coimbatore Zone and Two papers were presented.



Brig. P N Ananthanarayanan, DDG EM (GS&C), MGO Branch- Indian Army spoke on the “Opportunities for Textile Companies for the Armed Forces”. He emphasized that a major market for Technical Textiles in the country is the armed forces. The armed forces invest almost 700 crore yearly into textiles, and experts say that the industries in the south can tap this opportunity to venture into technical textile. There are a range of textile products that the armed forces procure every year. From combat dresses to woollen garments, rucksacks, sleeping bags, tents, parachutes, nets and camouflage nets and also over 10 thousand items of General Stores and Clothing from all Textile sub sectors are being procured by the Indian Army.

Mr. Prashanth Chandan, Joint Managing Director, Precot Meridian Ltd, presented the topic on “Investment Opportunities in Emerging Nonwoven Technologies”. He highlighted that worldwide growth of nonwoven technology is about 8% with all major regions and web-

forming technologies which includes Spunlace- 12%, Airlaid pulp- 11%, Spunlaid/ Spunmelt- 9% and Spunbond Bicomponent- 12% and high growth regions are China- 12-13%, South America- 10-11%, Middle East- 9% and Rest of World- 19%. He talked about the growth of Emerging Technology i.e. Value addition in Mature markets and Growth of basics in Emerging markets. He also highlighted that nowadays the carded web technology is declining and Hybrids, Spunlace etc. are increasing. He emphasized that emerging technologies mainly focused on Sustainability, Product comfort push, Functional advantage, and Indian advantage.

## Technical Session II- Warp Knitting & Knit Finishing

The Second technical session was chaired by Mr. Prabhu Damodaran, Secretary, Indian Textpreneurs Federation and Three presentations were presented.



“Potential of Warp Knitted Fabrics for Technical Textile” was presented by Dr. V. K. Kothari, Emeritus Professor, IIT Delhi. He said that Warp Knitting is a most versatile & innovative technique for Technical Textiles. He emphasized that warp knitted technical textile structures can be divided into four categories:- Basic construction, Three dimensional structure, Directionally Oriented Structure (DOS) and Composite structure.

The machines used for manufacturing of warp knitted fabrics are Raschel & Tricot machines and these fabrics have many applications in different sector of Technical Textile such as filter & conveyor fabrics, Surgical meshes & membrane, Drainage & filtration, Tape & Bird nets, Mosquito netting, lace fabrics, Seat covering & decorative fabrics, etc. He also highlighted that warp knitted fabric can be used to develop marketable products which cannot be manufactured with other technologies to the degree of perfection and feasibility & flexibility of warp knitted structures for technical applications is very high.

Mr. Vikram Chaurasia, Dy. General Manager- Fabric Forming, ATE Enterprises Pvt. Ltd. spoke on the “Warp Knitting for Technical Textiles”. He briefed about the importance of Warp Knitting in Technical Textiles. He said weft knitting and warp knitting are the two important fabric forming process. He emphasized that warp knitting is the versatile fabric production system in textiles and can produce various structures such as Rigid/ Elastic, Open/ Closed and Flat/ Tubular/ 3 Dimensional. Karl Mayer is the manufacturer of solutions for warp knitting, warp preparation for weaving and Technical Textiles. They have machines like Tricot machines, Raschel machines (Semi technical textile), Raschel machines for netting, Double needle bar machines, Warp Knitting machines with weft insertion and Biaxial/ Multiaxial machines for composite fabrics. Karl Mayer product range includes Automotive Textiles, Home Textiles, Lingerie, Mosquito nets, Shoe fabrics, Coating & laminating substrates, Shade & fish nets, Packaging, Protective, Safety and Sports nets, Mattresses, Geogrid, Geocomposites, Aeroplane Building, Wind mill blades, etc.

“Advanced technical/ functional finishes for the Knitwear Industry” was presented by Mr. Natarajan Pandi, Director, Cathy Bio Chem- Rudolf. He highlighted the functional finishes for the Knitwear Industry are Antipilling, Dimensional Care, Bio polishing, Antistatic, Antisnagging, Antiphenolic yellowing, Moisture Management, Soft handle on printed fabric, Hydrophilic permanent finish, Elastomeric effect finish, Water repellent Finish for Fleece, Moulding finish. The product range includes Underwear & lingerie, Stockings & socks, Mattress covering materials & bed linen, Blankets, Towels, etc. He explained about the different finishes i.e. Bionic-Finish Rudolf is given for water and oil repellency on the schoolwear and workwear. Bionic Finish Eco which is fluorine free, Intelligent self-

organisation for optimum water-repellent effects and Ecologically water repellent textile. He talked about the Green silver Technology and its applications are antismell finish for sportswear, medical garments for neurodermatitis and military applications. He also said about the Rucofin Lan, RUCO-FIL YPM & RUCO-FILAWM/YPM is suitable for all kind of fibres and for dyed and white yarns.

### Technical Session III- High Growth Segments of Technical Textiles

The Third technical session was chaired by Dr. Anup Rakshit, Executive Director, Indian Technical Textile Association and two papers were presented on Meditech and Protech.



Dr. A. Sanmugavasan, MD, KOB Textiles presented the “Investment Opportunities in indigenously developed medical textiles”. He said that KOB and number of Indian companies have developed cost competitive medical textile products, like compression bandages, Implants Hernia mesh, wipes, absorbent pads, etc. These products are currently being used in the hospitals. He presented few case studies on how new entrepreneurs can enter into manufacturing or converting these products with small to medium level of investment.

Mr. Nitesh Mittal, Senior Manager-Marketing Kusumgar Corporates Pvt. Ltd. presented the topic on “Protective Textiles- Opportunities and Challenges”. He emphasized that protective textiles are the products used for the people working in hazardous conditions. Defense and Home Land Security is one of the largest consumer of protective textiles globally. He briefed about the types of protective textiles i.e. Thermal, Electrical, Ballistic, Mechanical, Chemical & Low visibility and market potential for protective textiles are Textile items in Defense, Uniforms, Equipments, Beddings, etc., Average Textile load: 20 kgs, Average Value: INR 800/kg, Average Textile Value/ Soldier: INR 16,000, Global market: INR 38,880 crores, Indian market: INR 2,200 crore and also potential to supply to Indian/ Asian/ European market is INR 28,000 crore. The opportunities for protective textiles are Huge market potential, other segments: Automotive, Workwear, Sport Textiles and also have potential to manufacture Specialty fibres. He talked about challenges in protective textiles are Infrastructure, Reach-ability to Global Markets, Product Innovation, Consistency of Quality and Fiscal Incentives.

The conference ended with summing up the proceedings by Dr. S.K. Sundararaman, Vice-Chairman of ITTA.

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