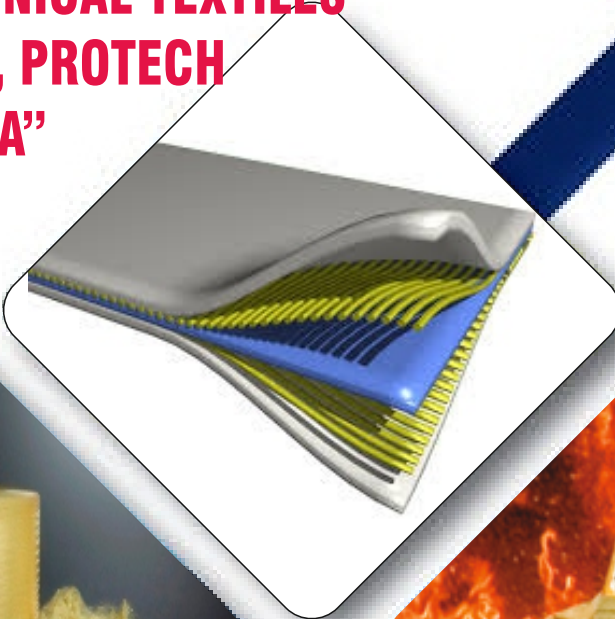




Ministry of Textiles - ITTA Joint Webinar  
**“INNOVATIONS ON TECHNICAL TEXTILES  
(FIBERTECH, INDUTECH, PROTECH  
& COMPOSITES) IN INDIA”**





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## ITTA DEFENCE HANDBOOK

# INDIAN TECHNICAL TEXTILE PRODUCTS FOR DEFENCE

### - A GLOBAL REACH -

Handbook covered major areas of Defence products with Indian Manufacturers' Names, Contact Details and Product Specifications i.e.

- *Protective Clothing & Accessories*
- *Collective Protection*
- *Load Carrying fabric*
- *Geosynthetics*



**RATE  
Rs. 750/-**

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#### Developed Lightweight Protective Suit



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#### Wound dressing that kills bacteria



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#### Lightweight Cargo Box for Flexible Storage



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#### 3D-Printed Unibody Carbon Fiber E-Bicycle



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## INDIAN TECHNICAL TEXTILE ASSOCIATION

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## SPECIAL REPORT

# Webinar on "Innovation on Technical Textile (Fibertech, Indutech, Protech & Composites) in India"

The Indian Technical Textile Association (ITTA) with Ministry of Textiles (MOT) organised the Webinar on **"Innovations on Technical Textiles (Fibertech, Indutech, Protech & Composites) in India"** was held on 31<sup>st</sup> July, 2020 through Video conferencing under the Chairmanship of Mr. Ravi Capoor, Secretary (Textiles), MOT. More than 150 people participated in the webinar.

The Webinar Speakers were Dr. Sundararaman KS, Chairman, ITTA, Dr. Nandan Kumar, Managing Director, High Performance Textiles Pvt. Ltd., Mr. Basant Lohia, Managing Director, Tarasafe International Pvt. Ltd., Mr. Shramik Masturlal, Managing Director, Masturlal Pvt. Ltd. and Dr. Dhaval Patel, Director, Nikol Advance Materials Pvt. Ltd.

Mr. Ravi Capoor, Secretary (Textiles) address the participants and spoke about the Setting up the National Technical Textile Mission. He said one of the problems of manufacturing high performance fibres is there are only 3-4 manufacturers in the world who hold patent and IP of these fibres i.e. Aramid, glass, Carbon fibre, etc. Research institutes should indigenously develop these products funded by government and give the patent to every manufacturer. Application research is also a very vast area and MOT is in touch with research organization of various other ministries. He explained that MOT had Identified top 10 globally trade HSN lines of TT. To encourage the industry to use this HSN lines where global market

size is substantial and want to build a complete ecosystem to support (in terms of governmental support, research, development, promotion, mandation, standards) these top 10 HSN lines. He said MOT is building 5 Mega Textile Parks wherein MOT can dedicate one mega park (1000 acres) to technical textile and provide everything which is required for the supply chain. Government will provide the support and all the facilities. MOT had asked ITTA to submit the Detailed Project Report (DPR) for setting up a Highly Sophisticated testing Laboratory for testing Technical Textile Products. Since MOT has mandated 92 technical textile products and now wanted ITTA & industry to come forward and submit the other TT items which can be further mandated.

Mr. Nihar Ranjan Das, Joint Secretary highlighted that MOT announced the TMTT and Baseline that was first steps taken for the growth of technical textile. He explained that MOT is working on improving the market through government support by mandatory use of TT products in different sector such as water resources, railways, geotextiles, Agrotextiles, etc. Under NTTM will have various components & one important component is promotion through seminar and conference with government & private users, demonstration of technical textiles (use of TT in agriculture in remote areas, use of geotextiles in roads, railways) and Formation of Export Promotion Council on TT to boost exports. Component on skill building is limited now, it can expand to medical and engineering colleges such as infrastructure, research and development in application areas, education and allow the technocrats and engineers to develop but to apply in the community i.e. civil engineers, doctors, agricultural, fishery, etc. He also



talked about the largest share about 1000 cr for research which are fundamental research, research in high end application areas i.e. carbon fibres, composites, medical textiles, geotextiles, automotive textiles, etc. and mainly dedicated to indigenous technical textile machinery, developing eco-friendly biodegradable technical textile, etc.

Dr. Sundararaman KS presented the title on *"Roadmap to Self Sufficiency in R&D in Technical Textiles"*. He expressed his happiness and thanked Secretary (Textiles) & Joint Secretary for the tremendous support and encouragement that Government is providing to increase the growth of the Technical Textile Industry. He spoke about the status of technical textile industry in India. He highlighted that Indian manufacturers almost depends on foreign machinery manufacturers for latest machinery and technology in Nonwoven segment, almost nil IPR created domestically is commercially used, insignificant engagement with R&D institutions as there is no transparent process and no success stories to emulate because new entrants want commercially ready solutions and do not want to invest in R&D. He also mentioned that many specialised fibres available at a higher cost because of imports, new gen bio composites and biopolymers have local sources and high technology innovation can to a large extent overcome the minor sourcing disadvantages within the country. Lastly, he recommended that applied research only should be encouraged, project funding committee to be co-chaired by an eminent industrialist with significant experience in IPR creation and commercialisation, allow for up to 25 % of project cost on foreign partners-institutions and government may fund international institutions for doing sponsored research where the IP rests with the government.

*"Innovative Technical Yarns for Protective Textiles"* was presented by Dr. Nandan Kumar. He talked about the Speciality yarns such as HPT Aracore® - Aramid based heat & cut-resistant yarns, HPT Flex® - High performance polyethylene (UHMWPE) based cut/slash/stab resistant yarns, HPT CutPro® - Cut-resistant comfort yarns, HPT Savesplash® - Yarns

for protection against electric arc-flash and flash fire and HPT Anti-StaX™ - Yarns with low surface resistance ( $\Omega$ ) for protection against electrostatic charges. He explained in detailed the major products like ring spun core yarn, metallic aramid sewing thread, IFR socks with antistatic properties, 'Prahlad' fabric: Unique blend of aramid and preox fibres reinforced with glass, UHMWPE based cut resistant yarns, cotton yarns reinforced with UHMWPE for gloves and work wear and impact resistant textiles (Spectra/glass yarn knitted fabric) for two-wheeler riders. He highlighted the challenges faced with research institutes in India i.e. blending & spinning of high performance fibres is still a challenge in smaller quantity, No report or research conducted if trial fails, Need to develop facility to process long staple high performance fibres and no clear model available on how available machines can be leased out to companies for bulk trial for 2 to 4 weeks trial. He proposed to create a Protective Textiles and Composite Support Centre - to promote Interdisciplinary product development, to study and commercial development of new fibres, Pilot line to crimp, cut, blend and spin high performance yarns, Partnership with overseas testing labs to set-up testing facilities in India and Partnership with overseas firms for guidance on global patent applications.

Mr. Basant Lohia talked on the topic *"India as a HUB of Flame Resistant Protective Textiles & Garments"*. He said India has the potential and opportunity to become global leader in the segment of protective textiles & garments. India's Flame resistant protective clothing market (2020) - approx. \$72 million which is growing at 14% CAGR and India's anticipated normal growth for Flame resistant protective clothing market (2025) - \$138.5 million. He emphasized on the scope of improvement in different sector such as required infrastructure for high performance speciality fibres, international fiber manufacturers to invest in India, ecosystem for specialized machinery will have to be built, to create specialized weaving, dyeing & FR finishing facilities, encourage manufacturers to manufacture Proban,



THPC, Pyrovatex treatment chemicals & dyestuff in India, encourage domestic equipment manufacturers to make specialized equipments specific to norms and technology development hub. The way forward is that Domestic consumption has to go up, Laws & guidelines to promote & implement worker safety in industries & Focus on Infrastructure and R&D. He also explained that Technology Development Hub should consist of Research & Development, Knowledge Sharing & Training and World Class Testing Facility to Generate Revenue.

Mr. Shramik Masturlal spoke about the *“Technical Textiles in the ambit of Filtration”*. He highlighted that Industrial filtration use textiles as major medium to clean pollutants from air, waste water & many industrial effluents. India needs to improvise “Indian produced substitutes” to negate imports & look closely at “self-reliance” of high performance speciality fibres/yarns. Raw materials used by producers are largely dependent on chemical & thermal attributes of the pollutants and therefore high performance fibres & yarns are very often required to resist chemical & thermal attack on the filtration medium & many of these fibres and yarns are not produced in India. He explained that India had a huge export opportunity in this business segment. Also the roll goods market can be easily accessed & serviced by India's Technical Textile industry. He also talked that due to the unique demands of product design and inability to create specific standards, testing facilities are yet nascent and rare. Growth in the area of filtration can span over a wide spectrum such as needle felts for containment of Industrial Airborne Pollution, waste water treatment & chemical effluent treatment where technology already exists in India.

*“Indian Composite Industry: Growth & Innovation”* was presented by Dr. Dhaval Patel. He talked about the Fibre reinforced polymer composites are made of mainly two components such as Reinforcements and Polymer Matrix. Fibre type used are carbon, aramid, glass & natural fibre and Preform

manufacturing processes like weaving, braiding, multiaxial and nonwoven mat. He explained in detail about the existing composite market in India i.e. Mass transportation (trains, bus, etc.), Electrical and Electronic goods (printed circuit board & composite enclosures), Energy sector (wind blade, FRP Tanks and pressure vessels), Military and Defence (Tejas aircraft, INS Kiltan/ INS Kavaratti, Chandrayan, etc.). New emerging composite market in India are Sports Goods, UAV, Civil Infrastructures & CIPP pipe restoration. India's per capita consumption of composite materials is 0.3 kg compared to 2.2 Kg in China & 11 Kg in USA. Growth of Composite industry in India is CAGR 6.6% compared to 8.8% globally despite of huge untapped potential. Indian composite market size is approx. 3.4 lacs metric tons compared to 22.6 lacs metric tons in China. He spoke about the different case study of China, Bristol & Sheffield, UK & Japan. He recommended Industrial research (MSME research projects - sufficient fund up to 5 Cr., IP generated - at least 5 years & Foreign experts or institutes with proven expertise should be allowed in the project), Academic research (Funding to be given - joint proposal of Industry and Academic institution and encouragement for registering IP at graduate and post graduate level) and Skill Development (Short term courses at respective COEs & Long term courses at IITs).

## ITTA ACTIVITIES

### PSA Committee Meeting to Address Issues Relating to Quality, Performance & Reuse of PPEs

The Meeting was held through audio-video conferencing under the Chairmanship of Prof. K. VijayRaghavan, the Principal Scientific Adviser to Government of India on 18<sup>th</sup> July 2020 to address the issue of quality, performance and reuse of PPEs. As

the member of committee, Dr. Anup Rakshit, ED, ITTA attended the meeting and shared his comments/ views on above subject. Draft recommendations have been prepared and will be finalized soon.

### Meeting of the Technical Advisory-cum-Monitoring Committee (TAMC) under A-TUFS

The 17<sup>th</sup> meeting of the TAMC under ATUFS was held through audio-video conferencing on 29<sup>th</sup> July 2020 under the Chairpersonship of Ms. Roop Rashi, IA&IS, Textile Commissioner. The meeting was attended by Dr. Anup Rakshit, ED, ITTA as the member of committee. MOM was circulated to all ITTA members.

Major Decisions Taken in TAMC --

- a. Ratified inclusion of 07 (seven) machinery manufacturers.
- b. Enhancement in existing subsidy cap under ATUFS will not influence the benefits of the MSME units though there is increase in investment/turnover limits under the new policy of MSME.

- c. For processing of claims under ATUFS, certificate of the subsidiary/ authorised agent issued by the enlisted parent/ original manufacturer duly authenticated by respective Embassy/ Consulate General/ Indian Embassy or the respective Embassy located in India may be accepted.
- d. In case Embassy/ Consulate General/ Indian Embassy are not located in the country then authentication of the certificate by Trade Council located in that country shall be accepted. For indigenous manufacturer supported documents of RoC to be accepted.

### MOT Meeting to discuss on four areas of Technical Textiles

Ministry of Textiles (MOT) & CII organised a Meeting with some of the Industry representatives through audio-video conferencing on 3<sup>rd</sup> July 2020 under the Chairmanship of Secretary, Textiles, MOT. Only four segments were covered in the discussion- Geotextiles, Agrotexiles, Medical Textiles and Protective Textiles (other than defence). From ITTA, Dr. Anup Rakshit, ED was invited to attend the meeting.

Mr. Nihar Ranjan Dash, JS, MOT gave the welcome address and presented the progress made so far by the Ministry of Textiles to boost the Technical Textile (TT) industry in India. Current Actions taken are 207 TT HSN codes were notified, 92 TT items

identified for mandatory use across 9 Ministries/ Departments and 72 have been mandated, Existing 364 standards and Approximately 100 standards under development, Skill development: 6 new courses prepared, 50000 to be skilled in next 2 years under Samarth Scheme of MOT, IIT Delhi has been assigned for conducting primary and secondary survey and prepare the updated Baseline Survey.

Following presentations were made during the meeting---

- a. Geotextiles (including application in railways) by Garware Technical Fibers Pvt. Ltd.
- b. Non Defence Protective Textiles by Arvind Ltd.

- c. Hygiene Products (including medical textiles) by Welspun Ltd. and Unilever Ltd.
- d. Agrotexiles by SASMIRA

MOT requested CII to take lead & jointly with ITTA prepare a Road Map on the growth of Technical Textiles for the next 5 years.

## Investment Forum on Textiles, Apparels & Technical Textile - Organised by Invest India & ITTA

Invest India organized a webinar on "Invest India Exclusive Investment Forum - Textiles, Apparels & Technical Textiles Edition" was held in two series on the 6<sup>th</sup> & 10<sup>th</sup> July 2020. The Forum was supported by Indian Technical Textile Association (ITTA). Different states participated in the Forum such as Assam, Gujarat, Madhya Pradesh, Maharashtra, Rajasthan, Telangana, Andhra Pradesh, Jharkhand, Karnataka, Odisha, Punjab and Tamil Nadu. More than 800 people participated mainly from the different industries, EPCs and Industry Associations.

The webinar features the presentations by senior government officials from India's states on investment opportunities, ecosystem enablers, incentives and infrastructure relevant for the textile, apparel and technical textile sector. Major points were discussed on domestic manufacturers, state clusters, scope of apparels and technical textile, machineries, yarn, supply chain and man-made fibres (MMF).

Chairing the webinar, Union Minister for Textiles, Smt. Smriti Irani, highlighted the centuries-old history of textile in India. She said India has a vast textile market, abundant raw materials and investor-friendly policies. She explained that every state rises upto occasion with regards to investment and every state grab opportunities with regards to increasing productivity and becoming more competency. She assured to industry that no matter what your investment; GOI through MOT will work shoulder to shoulder in their venture to facilitate growth and investment opportunities. She also shared that how the industry with help of MOT had turned the crisis like COVID-19 into an opportunity for technical textile segment. A sector which did not produce a single PPE suit before March 2020 is now the second largest producer of PPE suit in the world. The fact that this could turn around & reorient the production capacities and ensure that technical facilities including labs, certification process can be

streamlined in less than one month indicated that central & state govt. in India can do to support the growing strength of technical textile industry.

Shri. Ravi Capoor, Secretary, Ministry of Textiles, highlighted the ecosystem for textile sector in India and presented the latest initiatives and schemes of Government of India for promotion of textile industries in India. He informed that India is gearing up for huge investment in technical textile segment. For this reason, MOT is looking into 4-5 major areas for Investment. He explained that firstly MOT is going to establish 10 Mega Textile Parks in the country which will provide the scale to manufacturing sector in India and secondly to provide end to end solution from fibre to final product. He talked about the National Technical Textile Mission (NTTM) and highlighted some major sector where huge investment in technical textile can be done. Establishing Textile machinery manufacturing park and Technology improvement in existing sector. He also assured that GOI will be proactive in hand holding every particular investment.

Dr. Sundararaman K. S. made a presentation during the webinar. He emphasized on the opportunities and attractiveness for the Indian technical textile industry & why there is huge requirement of Investment in this sector. He highlighted the overview of technical textiles in India giving potentials of growing domestic & export markets. He presented the statistics of technical textile- Global market in 2019 was USD 250 billion, Indian market in 2019 was USD 19 billion, global per capita consumption is 10-12 kg vs. India's per capita Consumption is 1.7 kg. He explained the specific opportunities such as Biodegradable and recyclables- especially in packing, Mobiltech, Agrotech, Hygiene, PPEs and Buildtech including Roofing & architectural membranes where a huge investment can take place in India.



# DEVELOPMENT OF INDIAN STANDARDS ON TECHNICAL TEXTILES

## I. Meeting of BIS Sectional Committee

### 1.1 Protective Clothing (TXD 32)

The 13<sup>th</sup> Meeting of Textiles Protective Clothing Sectional Committee, TXD 32 was held through audio-video conferencing on 24<sup>th</sup> June 2020 under the Chairmanship of Dr. Arindam Basu. As a committee member from ITTA, Dr. Anup Rakshit, ED, ITTA attended the meeting.

Highlights of the key points discussed & decided in the meeting -

1. Transfer of following Stds. TXD 32 to CHD 08 - Protective gloves, High Visibility Clothes, FR Protective Hoods, Chemical Protective Clothing, Molten Metal Splash Protective Hoods, Industrial safety clothing & Protective clothing - Gloves and arm guards.
2. Fresh preliminary drafts on "Performance

requirements for protective clothing worn by operators applying pesticides and for re-entry workers" to be prepared by panel constituted for this purpose.

3. Draft amendment of IS 17051:2018 'Textiles - Bullet Resistant Jackets- performance requirements' was finalized.
4. Draft IS stds based on these Six ISO stds i.e. ISO 12127-1:2015, ISO 12127-2:2007, ISO 13994:2005, ISO 13995:2000, ISO 13996:1999, ISO 13997:1999, ISO 17491-1:2012, ISO 17491-2:2012, ISO 17491-3:2008, ISO 17491-4:2008, ISO 17491-5:2013, ISO 17493:2016 will be prepared by BIS and same will be issued under wide circulation.

### 1.2 Medtech Applications (TXD 36)

The 14<sup>th</sup> Meeting of Technical Textiles for Medtech Applications Sectional Committee, TXD 36 was held through audio-video conferencing on 4<sup>th</sup> July 2020 under the Chairmanship of Dr. Prakash Vasudevan. Dr. Anup Rakshit, ED and Shri. Nirav Mehta, Director, ITTA attended the meeting as the member of committee.

Following points were discussed & decisions taken -

1. Indian Stds on Reusable Sanitary Pad/Sanitary Napkin, Disposable Baby Diaper, Disposable Adult Incontinence Diaper, Crepe Bandage, Knitted Dressing, Belladonna Adhesive Plaster, Orthopedic Stockinet, Surgical Dressings, First Aid Dressings, Bandage- Plaster of Paris, Zinc Oxide Self-Adhesive Plaster, Chlorhexidine Gauze Dressings, Hydrocolloid Dressing & Cellulose Wadding were finalized for publication

as Indian standards (IS).

2. Preliminary draft to be prepared on Eye Pad, Caps, Bedsheet & Pillow Cover, Underpad and Nonwoven Wipes shall be issued under wide circulation.
3. A panel has been given task to review the comments received on the existing standard IS 17423 - Coveralls and various other important aspects/parameter/performance requirements which are required to be incorporated in the existing draft standard and shall prepare the preliminary draft standard for revision of IS 17423 for Bio-Protective Coveralls.
4. Existing std. IS 17350 - Abdominal Binder to be amended by BIS.

### 1.3 Clothtech Applications (TXD 39)

The 3<sup>rd</sup> Meeting of Technical Textiles for Clothtech Applications including Narrow Fabrics and Braids

Sectional Committee, TXD 39 was held through audio-video conferencing on 7<sup>th</sup> July 2020 under the

Chairmanship of Shri A. Chowdhury. As the member of committee, Shri. Vikram Jain, Director, ITTA attended the meeting.

Highlights of the discussion taken in the meeting -

1. Stds on Cotton tapes, Braided tapes for berets and Tapes for slide fasteners were finalized for publication as Indian standards (IS).
2. Preliminary draft Indian standards prepared on cotton braid for sleeveings, waxed cotton selvedge tape, cotton webbing & silk webbing to be issued in wide circulation.
3. Shri Vikram Jain will collect necessary technical information on Labels and Badges from the member organizations and forward it to BIS for formulating a working draft.

## Meeting of Standardization Cells Established in Industry Associations

To strategize the standards development in the textiles including technical textiles sector, identify the needs and priorities of the industry, to facilitate their engagement and participation in standards development both nationally and internationally and to promote implementation of standards, BIS has made provisions for creating 'Standardization Cell' within the relevant industry associations.

Subsequently, the First meeting of Standardization Cells established in Industry Associations was held through audio-video conferencing on 8<sup>th</sup> July 2020. As the member of the committee, the Senior Officials of ITTA - Shri. Amit Agarwal, Shri. Anjani Prasad, Shri. Pankaj Kapoor, Shri. Shrichand Santani, Shri. Narendra Kajale, Shri. Sheelam Seth, Shri. Vikram Jain, Shri. Dhaval Patel, Shri. Shramik Masturlal, Shri. S. J. Rao and Dr. Anup Rakshit attended the meeting.

Shri. J. K. Gupta, BIS, shared a presentation on topic - Standardization of Technical Textiles and Standard National Action Plan (SNAP). He informed that 12 segment of technical textiles have been identified under SNAP for urgent standardization wherein 3 major areas such as Industrial Textiles, Composites & Speciality fibres are taken on urgent basis. About

386 Indian Standards on Technical Textiles including its test methods have been published and work on 65 subjects identified by Ministry of Textiles is underway. Apart from above, work on 80 subjects on other conventional textiles based on the latest technological advancement is also underway. He highlighted the important standards published/finalized or revised recently, proposals for new subjects for standardization and adoption/implementation of Indian Standards.

During the meeting, the team of BIS highlighted how their updated website i.e. manakonline.in (eBIS portal) is going to work. They explained about the 1) Standardization Cell i.e. Creation of Standardization Cells, Functions of Standardization Cells & Involvement of domain area experts in standards formulation process, 2) Training i.e. Training Module of BIS & Standard Promotion Capacity building of industry officials on standardization and conformity assessment issues and 3) Quality Control Orders i.e. Formulation of QCOs and essential requirements & Market surveillance of products under licence.



## NATIONAL NEWS

### Kusumgar Develops Fabric for Heavy Cargo Parachutes

Kusumgar Corporates Private Limited, a pioneer in technical textiles in India, has developed a special



fabric for P7 heavy cargo parachutes. Kusumgar successfully developed the fabric with special coating formulation with the support of DRDO's ADRDE team, which resulted in

improved abrasion resistance in addition to being water and oil repellent.

The heavy drop system is used for paratropping, which is capable of paratropping military stores up to 7-ton weight class from IL-76 Aircraft. In light of the requirements of the armed forces, especially in difficult to reach border areas without motorable roads, these systems would fill the gap for logistics and supplies.

The entire system was developed by DRDO's ADRDE lab based in Agra and manufactured by OPF Kanpur. The successful use of its fabric in the system is another feather in the cap for Kusumgar and is in tune with the vision of Prime Minister's 'Made in India' project.

[Source- <https://textilevaluechain.in/2020/07/24/indian-company-kusumgar-develops-fabric-for-heavy-cargo-parachutes/>]

### CIPET gets accreditation by NABL for testing and Certification of PPE kit

Central Institute of Petrochemicals Engineering & Technology (CIPET) in Bhubaneswar, an apex level premium institute under the Ministry of Chemicals and Fertilizers, Deptt of Chemicals & Petrochemicals, has been accredited by National Accreditation Board for Testing and Calibration Laboratories (NABL) for Testing & Certification of PPE Kit.

PPE kit includes Gloves, Coverall, Face Shield & Goggles, and Triple Layer Medical masks etc. in line with International Standards. This is another achievement of CIPET in the fight against COVID- 19 Pandemic and a step forward towards 'Atmanirbhar Bharat'.

CIPET: IPT Centre Bhubaneswar, after developing facility of testing PPE kit had submitted an application to NABL for accreditation. After an online audit of its testing facility NABL granted



accreditation to CIPET- Centre Bhubaneswar. Some other CIPET centers have also applied for accreditation which is under process.

Union Minister of Chemicals and Fertilizers Shri DV Sadananda Gowda has Congratulated CIPET



–Bhubaneswar for this achievement, called for keeping up the momentum for pioneering works to serve the people of the country and helping MSME to focus on Make in India.

CIPET has been taking up the R&D initiatives in the areas of Health Care as per WHO/ ISO guidelines. CIPET has also expanded its capacity to test foodgrain and fertilizer packaging in order to

support the essential services during Covid pandemic.

[Source- <https://textilevaluechain.in/2020/07/24/indian-company-kusumgar-develops-fabric-for-heavy-cargo-parachutes/>]

## Welspun Launches ₹1100-Cr Manufacturing Unit in Telangana

Welspun Group's fully integrated and independent vertical Welspun Flooring Ltd has launched a Carpet manufacturing facility in Hyderabad, Telangana with a potential capacity of 40 million square metres per annum. Set up with an investment of Rs 1100 crore, the facility is spread across 200 acres, employing close to 1600 members. The plant is equipped to manufacture wide variety of innovative products ranging from carpet tiles, greens (artificial grass) and broadloom carpets (wall to wall carpet) to the patented product – the Click-N-Lock tiles.

Launched with an initial capacity of 10 million square metres, post completion of all phases, the facility will have a production capacity of 40 million square metres annually. Of the total 40 million square metres capacity, 25 million square metres will be for hard flooring products while rest will be for soft flooring products.

Adjacent to this facility, Welspun Group is also establishing a manufacturing plant for its emerging business – advanced textiles at an investment of Rs 400 crore over a span of two financial years. The flooring business is meant to complement the group's existing businesses such as home textiles,

said Welspun Group chairman Mr. B K Goenka.

"Our retail brands like Welspun & Spaces has gained high consumer acceptance and continues to drive our growth in the evolving domestic market. We are now entering another exciting phase of our growth with foray into the flooring segment. This emerging business is poised to benefit from the synergies with our existing businesses and large customer base, thereby creating a strong domestic as well as global growth opportunity," Mr. Goenka added.

Along with the introduction of stone polymer composite tiles, the company offers holistic flooring solutions for architects, designers, retailers and customers, and aims to manufacture products for every industry – residential, hospitality and commercial. While India is a focus market, Welspun Flooring will also export to Europe, US, Australia and the Southeast Asian countries.

[Source - [https://www.business-standard.com/article/companies/welspun-launches-40-mn-sq-mtrs-flooring-plant-in-telangana-120072500904\\_1.html](https://www.business-standard.com/article/companies/welspun-launches-40-mn-sq-mtrs-flooring-plant-in-telangana-120072500904_1.html)]

## IIT Kharagpur start-up develops low-cost surgical face masks

The IIT Kharagpur-incubated start-up Anigiene Technical Textiles has developed P3 layered surgical face masks for low-income groups and healthcare workers. Anigiene Technical Textiles, led by a group of researchers at the Institute's Science and Technology Entrepreneurship Park, has developed the low-cost product to help the country and the world in the fight against coronavirus. This entire

project was sponsored by the Ministry of Textiles, Government of India.

The company has already completed the field-testing procedure using local volunteers with encouraging feedback. The target for a full commercial production is expected to be one lakh units per month, priced at only Rs 10.

Dr. Satyabrata Ghosh, Research Associate at the Department of Biotechnology at IIT Kharagpur and Director of Anigiene Technical Textiles, said, "We have kept in mind typically the needs of the people who are economically challenged while strictly avoiding any compromise on the part of health protection. Our product also caters to the health workers."

"Addressing basic needs of the public and making them available at affordable prices is critical. Science and Technology Entrepreneurship Park at IIT Kharagpur is catering to this need by incubating and facilitating start-ups. I congratulate the researchers who have come forward with this product and contributed to keeping the country safe," he added. Anigiene Director, Dr. Ghosh, said



that IIT-Kharagpur has been conducting further experiments on using fibres such as fruit peels for fully biodegradable masks.

**[Source-<https://www.abpeducation.com/news/iit-kharagpur-start-up-develops-low-cost-surgical-face-masks-1.1177981>]**

## Kanpur institute develops aromatic fabric

The medical textile laboratory of the Fragrance and Flavour Development Centre (FFDC) in Kanpur, has developed clothes that have a fragrance of their own and can survive even after multiple washes. FFDC Assistant Director Mr. Shakti Vijay Shukla said trials were on to see how many washes the fragrance can survive. The fragrances used in the manufacture of aromatic fabric include rose, khus, chameli and sandalwood. According to scientists, the aromatic clothes will be more comfortable than the normal fabric.

The FFDC is manufacturing aromatic fabric, using two technologies. In one method, the thread is soaked in the fragrance before weaving and in the second, a nano-capsule is used to imbue the cloth with aroma. The cost of aromatic fabric would be merely 20 per cent more than the normal fabric.

According to scientists, fragrances are said to work as mood enhancers, stress busters, and possess the capability to evoke emotions. Using aroma therapy in textiles, the wearer can be helped to stay calm and invoke alertness. This innovative combination can also be used to treat patients with Alzheimer's disease.

Connecting clothes with fragrance technology to

biometric sensors, which measure heart rate and stress levels, a relaxing scent can be infused to help a person calm down or for uplifting an individual's mood. The use of sensors helps register scents and release them depending on the mood of a person.

Clothes act as second skin, and infusing essential oils into one's wardrobe can help keep skin moisturized and nourished. Cosmetic-textiles can be developed with other substances like vitamins, skin moisturizing agents, skin cooling agents, and anti-ageing agents," said a scientist at FFDC. Using menthol and micro-encapsulating it onto textile fibres, manufacturers in some countries have designed a product that helps the body to stay cool and has a calming effect on the wearer.

**[Source- <https://www.socialnews.xyz/2020/07/23/now-kanpur-institute-develops-aromatic-fabric/>]**

## INNOVATIONS AND TECHNOLOGY

### *MEDITECH - Protective Suit & Wound dressing*

#### Lightweight Protective Suit

Steril Saglik Urunleri, a Turkey-based personal protection equipment manufacturer, has developed a lightweight protective suit, made up of breathable material that guarantees comfort and safety. To protect healthcare workers from the COVID-19 virus, the disposable coverall full-body protection has been covered with natural antiviral ingredients. In the tests, the COV-SARS 2 virus on the laminated fabric surface was killed in 10 seconds.

There is no use of harmful chemicals. The suit is wholly made of environmentally friendly materials. A patent application has been filed. The materials used on the surface are produced in ppm ranges determined by FDA in nanoscale. Healthcare workers depend on personal protective equipment to protect themselves and their patients from the spread of microorganisms and infectious diseases. With the COVID-19 pandemic, PPE has become more crucial than ever.

“There's a critical need for protective apparel, and we believe that intensifying our effort to produce

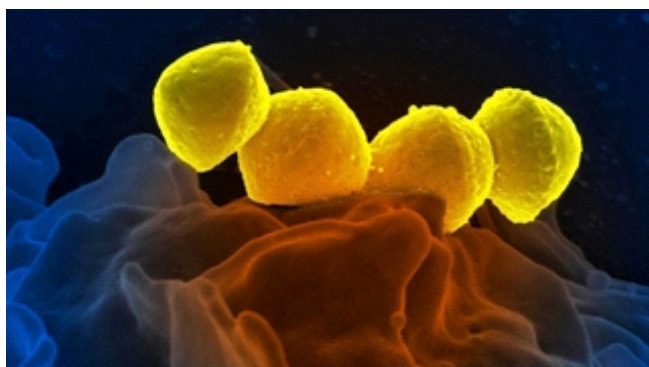


more of our new patent is the fastest way to protect more people,” said Mr. Zeynel Savrun, the CEO of Steril Saglik Urunleri. “In these most unusual circumstances, it's fulfilling for the Steril Saglik Urunleri team to carry out our mission to organise all of our talents and resources to benefit the wellbeing and health of people everywhere.

[Source- <https://textilevaluechain.in/2020/08/10/turkish-company-develops-lightweight-protective-suit/>]

#### Wound dressing that kills bacteria

In order to combat bacterial wound infections, Switzerland based Empa researchers have developed cellulose membranes equipped with antimicrobial peptides. Initial results show that the skin-friendly membranes made of plant-based materials kill bacteria very efficiently.



If germs invade a wound, they can trigger a long-lasting infection that may fail to heal or even spread throughout the body, leading to life-threatening blood poisoning (sepsis), the researchers say. The problem of antibiotic resistance is becoming more and more widespread, particularly in complex wounds, as bacteria such as staphylococci have become resistant to what was once the miracle weapon of medicine, they add. Empa researchers have therefore developed cellulose membranes, with which these infections can be eliminated early on.

The cellulose fibres with a diameter of less than one micrometre were spun into a delicate multi-layered,

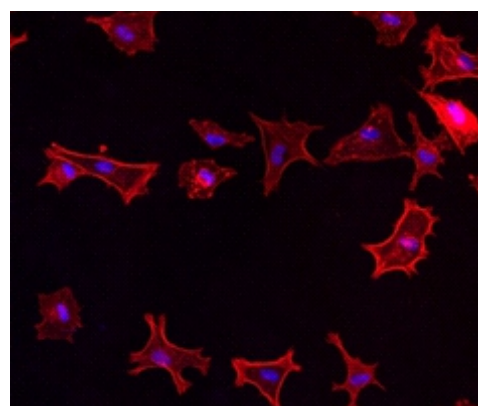


three-dimensional fabric. The membranes became particularly flexible and at the same time stable after the researchers had added the polymer polyurethane to the spinning process.

In order to achieve an antibacterial effect, the researchers designed multifunctional peptides – which, they say, can bind to cellulose fibers and exhibit antimicrobial activity. According to the scientists, peptides have several advantages compared to larger proteins: they are easier to produce and more stable than proteins, which react more sensitively to the chemical conditions in a wound.

If the cellulose membranes are treated with such a peptide solution, the fibre scaffold will become saturated with peptides. In cell culture experiments, the researchers then showed that the peptide-containing membranes are well tolerated by human

a



skin cells. However, the cellulose membranes were death sentence for bacteria such as

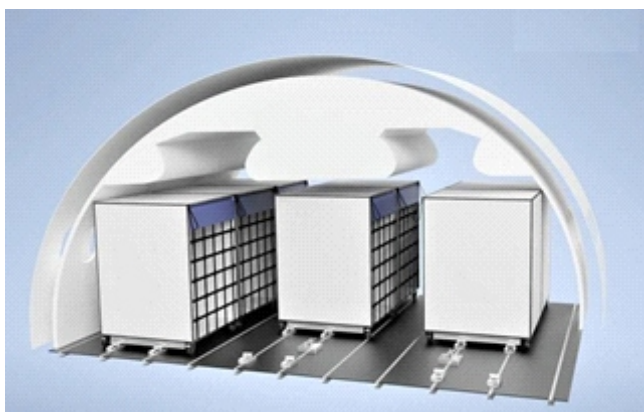
staphylococci, which are often found in poorly healing wounds. "In bacterial cultures, over 99.99 percent of the germs were killed by the peptide-containing membranes," says Researcher Ms. Katharina Maniura.

[Source- <https://www.empa.ch/web/s604/antibacterial-wounddressing>]

## COMPOSITES - Lightweight Cargo Box & 3D Printed E-Bicycle

### Lightweight Cargo Box for Flexible Storage

Elbe Flugzeugwerke GmbH (EFW) based in Germany, a leading composite and passenger to freighter conversion specialist, has launched a



lightweight, robust Cabin Cargo Box for flexible storage concepts. The solution allows airlines to boost freight capacity in the main cabin of passenger aircraft to its maximum. The Cabin Cargo Box movable on wheels offers an easy and fast loading and unloading.

"With its size of 1 x 1 x 1,55 m (40 x 40 x 60 in) the Cabin Cargo Box offers a loading of up to 200 kg (440 lbs) at a tare weight of 28 kg. This specification fits

well with all common PAX doors and is applicable for all narrow and widebody aircraft. It allows a side by side in a row principle of three boxes for passenger cabins," the German company said on its website.

The Cabin Cargo Box comes with an installation kit with latches designed to perfectly match with the seat rowing system at predefined positions and to ensure a safe and quick installation. The box can be realized as a one side open version locked with nets or as a closed version either by canvas or by a solid door.

The Cabin Cargo Box solution is an advanced opportunity to implement individual cargo solutions optimized to airlines needs with just minor modifications: flexible and reversible.

[Source- <https://www.technicaltextile.net/news/efw-launches-lightweight-cargo-box-for-flexible-storage-269156.html>]

## 3D-Printed Unibody Carbon Fiber E-Bicycle

Superstrata, a Silicon Valley-based bicycle brand, has unveiled its flagship product, the world's first made-to-measure 3D-printed e-bicycle with an impact-resistant unibody carbon fiber frame.

The Superstrata touts a true unibody construction, 3D-printed in a single pass of continuous carbon fiber thermoplastic composite. Unlike other carbon fiber bikes whose frames are glued and bolted together using dozens of individual parts and fabricated from previous-generation thermoset composite materials, the Superstrata frame is constructed without joints or glue for seamless strength. It's also produced using next-generation thermoplastic materials, making it extremely impact resistant, yet remarkably lightweight.

Superstrata uses an advanced 3D-printing process which allows for an unprecedented level of customization. The frame can be tailored to riders'

heights, weights, arm and leg lengths, riding positions and even preferred stiffness levels. With over 500,000 possible combinations, Superstrata is the most versatile carbon fiber bike ever made.

Two versions will be available: 1) Terra, a bicycle and 2) Ion, an e-bicycle which can be fully charged in two hours, providing for up to a 55-mile range. Both Terra and Ion will feature integrated data and power wiring throughout the frame, enabling a variety of electronic upgrades. Additional options include: different riding styles (racing, street, gravel, or touring), wheel material (metal or carbon fiber), and colorways (light or dark).



[Source-<https://www.prnewswire.com/news-releases/superstrata-debuts-worlds-first-custom-3d-printed-unibody-carbon-fiber-e-bicycle-301092159.html>]

## RAW MATERIALS - Rechargeable Antimicrobial fibres & Superabsorbent fibres (SAF)

### 3-layer composite medical face masks for healthcare industry

US based UMF Corporation which develops high-performance products, programmes and training for infection prevention and commercial cleaning, has joined hands with Universal Fibre Systems, manufacturer of synthetic filament-based and specialty fibres, to produce high performance rechargeable antimicrobial fibres. These will incorporate UMF's antimicrobial technology. UMF will provide its patented antimicrobial, rechargeable Micrillon chemistry to Universal for incorporation into two high performance fibres.

The first, a super-fine sheath and core fibre, will be produced and utilised in a new, unique product requested by leading companies in the hotel

industry. The second, a splittable, bicomponent filament, commonly referred to as microfibre or segmented pie filaments is also in production. These two Micrillon fibres will be converted to various yarn types for woven and knitted textiles such as gloves, gowns, towels, curtains, wipers and other products.

UMF Corporation's Micrillon is a rechargeable, broad spectrum, antimicrobial polymer additive that can be incorporated into fibres, as well as films, injection molded and extruded plastics, and charged with chlorine molecules. The Micrillon chemistry recharges for the life of the product into which it is incorporated, and will not leach into the

environment. When bacteria and mold come into contact with the Micrillon surface, they are eliminated, and viruses are inactivated.

Universal will manufacture the Micrillon bicomponent fibres and sheath and core fibres in its manufacturing facility in Johnson City, Tenn. Both the splittable and sheath and core Micrillon fibres then can be knitted or woven into all kinds of textiles, the first of which will be a knitted glove for hotel staff to use in the front of the house. UMF Corporation plans to create other products for use in hospitality, healthcare and residential applications.

## New Grade of Superabsorbent Fibre (SAF)

Technical Absorbents Limited (TAL), UK has developed a new grade of superabsorbent fibre (SAF) specifically for use within a new range of SAF nonwoven fabrics that are more resistant to shrinkage. The company produces and markets versatile super absorbent fibre grades for use in clothing, cable, yarn, tape, packaging, medical, and various other industries.

The new SAF was developed in response to the demand from the medical industry for a superabsorbent fabric suitable for use in advanced wound pad dressings. The fibre had to be capable of



withstanding the moisture used in the EtO sterilisation process that is frequently employed in the production of the pads, in order to ensure product safety and compliance.

EtO sterilisation is a low-temperature process (typically between 37 and 63°C) that uses ethylene oxide gas to reduce the level of infectious agents. While generally applied in gas form, however, the EtO is usually mixed with other substances, and



[Source-<https://www.technicaltextile.net/news/umf-universal-fibre-to-make-antimicrobial-fibres-269090.html>]

often steam, according to a press release by TAF.

The amount of shrinkage caused by EtO sterilisation depends very much on the product design and construction, he adds, but in general, the new SAF has been tested and proven to reduce fabric shrinkage by around 70 per cent. It is suitable for use in all SAF nonwoven formats, whether needle-punched, thermally bonded or airlaid. While the proprietary process developed at TAL for the production of this new fibre and resulting fabrics was prompted by the specific requirements of wound pad dressings, TAL sees opportunities for its application in other areas as well.

“Obviously superabsorbents and moisture generally aren't a good combination at this stage in processing and can cause problems. Other methods can be used, but when silicone materials are included, which is more frequently becoming the case, EtO is the preferred treatment method. Regular SAF grades tend to shrink a little and can become hard, which is often not desirable. This innovative SAF grade significantly reduces such potential problems. It's an extremely flexible fibre that can be easily switched with existing SAF grades when manufacturing fabrics and we have a number of current projects in which we're exploring other end-uses. We believe this new range could also open up entirely new application areas on the market,” TAL product development director Mark Paterson said.

[Source- <https://www.yarnsandfibers.com/news/textile-news/tal-develops-a-new-grade-of-saf/>]



## TECHNOLOGY

### New D-Tech Mask Line for Respiratory Masks

Austria based technology group Andritz has presented its new D-Tech face mask line for respiratory masks, such as duckbill and flat fold respirators. The new mask line can be customised to laminate different layers of fabric ensuring highest quality and hygiene standards.

The line comprises unwinding and guiding units for nonwoven webs, automatic splicing of all raw materials, cutting and positioning devices for the metal nose bar, an edge welding and cutting unit, a 90° rotation process, positioning and welding of the ear loop elastics, as well as quality control using the D-Tech Vision System. In addition, a broad selection of options are available for the main line. Machine dimensions can be customised according to customers' plant requirements.

Customers benefit from a fully automated production line including complete ultrasonic

technology, a facility to include printing systems, and an interface to the automatic packaging machine. Moreover, there are different packaging options available – products can be packaged in bags by an automatic flow pack machine or packed in cardboard boxes by an automatic cartoner.

The respiratory mask ensures a higher level of protection for the wearer as well as his environment due to its particle retention capacity ( $<0.3 \mu\text{m}$ ) and the higher-quality defined total leakage compared to conventional protective masks. Producers already operating an Andritz D-Tech surgical mask line can upgrade it to produce respiratory masks with a special kit.

[Source-<https://www.technicaltextile.net/news/andritz-launches-d-tech-mask-line-for-respiratory-masks-269109.html>]

## PACKTECH

### First Ever Antimicrobial Reusable Packaging

Returnity, New York has partnered with Polygiene, Sweden to create an improved reusable packaging product, treated with Polygiene's ViralOff® antimicrobial solvent. The initiative is a first for the packaging industry, directly addressing recent concerns linked to COVID-19 that have reversed progress in the fight against plastic pollution. The packaging, designed by Returnity, will be protected by Polygiene's ViralOff antimicrobial solution.

Returnity is the leader in implementing reusable shipping packaging, designing and manufacturing cost-effective and lightweight boxes and bags that are disrupting the wasteful, expensive, and environmentally harmful shipping packaging market. Returnity helps eliminate defunct cardboard boxes and poly mailer bags, reducing packaging expenses, providing a financial return, improved user experience, and significant reductions in resource consumption.

"What we do at Returnity is build out these reusable

solutions and empower the broader systems necessary for companies to shift to the circular economy. By partnering with Polygiene, we are now able to create something that better addresses consumer needs in our world today," said Mr. Mike Newman, CEO of Returnity Innovations. "By creating this system that prioritizes safety with antimicrobial coating for our packaging, we are providing a legitimate reusable option that the consumer can feel good about - from both a safety standpoint and an environmental one."

Polygiene treats materials to keep garments, footwear, gear and textiles fresh and lasting longer. Their ViralOff® antimicrobial solvent inhibits bacterial growth. "Our vision is to change washing and disposal habits, and significantly reduce the environmental impact of a product. When we met Returnity, we realized that our objectives were aligned and that there was an opportunity to work together to further enhance their reusable boxes and bags by treating them with ViralOff" said Ms. Ulrika

Björk, CEO of Polygiene. "Anti-viral treatments have been a game-changer while navigating the pandemic and we believe that these treatments will become the new standard for reusables in the future."

[Source-<https://www.prnewswire.com/news-releases/returnity-and-polygiene-partner-to-create-first-ever-antimicrobial-reusable-packaging-301095347.html>]

## SPORTECH

### High performance Backpack - 100% Recycled HT Nylon

Osprey based in US, the leader in creating top-quality, high performance, innovative carry solutions and Hyosung, South Korea a comprehensive fiber manufacturer that produces world-class products and provides value chain solutions from textile mill to brand to consumer, are pleased to announce their collaboration for Spring 2021. Osprey will feature Hyosung's new GRS certified, 100% recycled Mipan® regen robic high-tenacity nylon in its best-selling, multi-sport Talon/Tempest series, which has been completely redesigned and expanded for Spring 2021.



are saved. Osprey's new Talon/Tempest features one of the first commercial uses of this innovative fabric.

"As a solutions provider, we are proud to partner with such a legendary outdoor brand as Osprey to help realize its vision of developing a sustainable pack that its customers will feel good about purchasing and carrying," said Mr. Simko.

"Supporting technological advancements in recycled materials is critical to busting the myth that recycled materials means reduced performance," said Mr. Mark Galbraith, Vice President of Product, Osprey. "Regen recycled high-tenacity nylon allows us to both bring recycled material into our premium Talon/Tempest series while improving its technical performance and durability."

[Source-<https://sgbonline.com/pressrelease/osprey-and-hyosung-collaborate-to-launch-sustainable-high-performance-pack-collection-for-spring-2021/>]

Hyosung's regen robic nylon is made with 100% reclaimed waste, which saves valuable resources from being removed from the earth. According to Mr. Mike Simko, Hyosung Global Marketing Director, for every kilo of recycled nylon Hyosung makes, six to seven kilos of CO2 eq. of Global Warming Potential



#### ITTA SIGNED MOU WITH TAIWAN TECHNICAL TEXTILE ASSOCIATION (TTTA)

Taiwan Technical Textiles association (TTTA) is the leading technical textile association in Taiwan, having membership consists of cross field manufacturers, distributors, industry groups, R&D units and academic experts. At present TTTA have over 200 members. The objective of MOU is:-

1. To jointly organise International workshop, seminar or symposium for technical textile companies of both the countries.
2. To jointly promote development of product testing standards
3. To support the major events on Technical Textiles/Nonwovens and related industries organized by ITTA & TTTA members.

# ADVERTISEMENT TARIFF FOR ITTA E-BULLETIN

For an ITTA Members, please tick (✓) against one of the following:

	One Issue	Three Issues	Six Issues
<b>Full page</b>	Rs. 10000* <input type="checkbox"/>	Rs. 25000* <input type="checkbox"/>	Rs. 45000* <input type="checkbox"/>
<b>Half page</b>	Rs. 6000* <input type="checkbox"/>	Rs. 16000* <input type="checkbox"/>	Rs. 30000* <input type="checkbox"/>

For a Non-Member of ITTA, please tick (✓) against one of the following:

	One Issue	Three Issues	Six Issues
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\*GST as applicable

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**MATERIAL FORMAT:** CorelDraw/ High Resolution PDF/ 300 dpi JPEG

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- I) Payment by DD/Cheque in favour of "INDIAN TECHNICAL TEXTILE ASSOCIATION", payable at Mumbai.
- II) Payment can also be made directly into bank Account -  
A/C. Name: INDIAN TECHNICAL TEXTILE ASSOCIATION  
Bank Name: Bank of Baroda, Ghatkopar (W) Branch, Mumbai -400086.  
Current Account No: 04220200000491  
IFSC Code - BARB0GHATKO

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Mobile Number:.....Email:.....

## INDIAN TECHNICAL TEXTILE ASSOCIATION

**For more information contact:** 'A' Block, BTRA, L.B.S. Marg, Ghatkopar (W), Mumbai 400086  
Tel: 022-25003098; Mob: 9769464616 Email: officeed@ittaindia.org



## New Members

### ***WELCOME TO NEW MEMBERS***

#### **TEXTILE INSTITUTE, UK**

Textile Institute (TI) is a unique organisation in textiles; clothing and footwear incorporated in UK by a Royal Charter granted in 1925 and is a registered charity. The Institute has individual and corporate members representing the whole supply chain in textiles connecting students, professionals and organisations in upto 70 countries. The membership covers all sectors and all disciplines in textiles, clothing and footwear with current focus on Technical Textiles. They provides networking opportunities for members and industry alike through its events aimed to stimulate new business ideas and provides services that support the continuing professional development of their members whether that is through educating, sharing knowledge, providing practical advice or connecting members.

#### **IRIS KNITWEAR, LUDHIANA**

Iris Knitwear was established in 1977, with garments business for almost four decades. Lately the company has diversified into textile technology solutions with exclusive research & development dept. for the requirements of the defense, industrial workwear and sports market. They have hot & cold seam sealing m/c, fibre filling machine, etc. The product range with capacity (FY 2018-19) of Bullet proof jackets, NBC suits, High altitude clothing & Fire retardant apparel- 1 lakh pcs/year and Sports Composites, Artificial turf, Parachute Fabrics, Ballooning fabrics, Sail cloth & Sleeping Bags- 1 lakh pcs/year.

#### **JYOTI WATERPROOF WORKS PVT. LTD., KOLKATA**

Jyoti Waterproof Works is the manufacturers and exporters of Nonwoven fabrics used in various segments i.e. Agrotech, Meditech & Packtech. They have machines like PP spun bond nonwoven plant, extrusion lamination plant & hot seam seal taping machine. Their key products with capacity are (FY 2018-19): crop covers & weed control fabrics- 200 mtr/year, surgical gowns, facemask, shoe & pillow covers- 800 mtr/year and shopping bags & containers- 400 mtr/year.

#### **HMBS TEXTILES PVT. LTD., DELHI**

HMBS Textiles is expertise in Geotechnical Engineering, they offer a wide range of Geosynthetics solution to build buildings, pavement, roads, bridges, runways for airports, soil erosion protection, slopes and retaining walls. Apart from exporting and supplying Geosynthetics products, they also offer complete technical assistance for training, installation and maintenance. Their machinery includes geomat & geocomposite manufacturing m/c, RE wall blocks manufacturing m/c, air compressors, PVC welding m/c for tunnel, etc. with production capacity (FY 2019-20) of multimat- 2 lakh sqm/year, coir mat- 2 lakh sqm/year and geocomposite- 75000 sqm/year.

#### **CLIFF CLIMBERS (INDIA) PVT. LTD., UTTARAKHAND**

Cliff climbers is into importing, manufacturing & supplying quality equipment for Mountaineering, Camping, Rock Climbing, Skiing, Industrial Rope Access, Rafting, Field, Rescue Operations, Army & Police Training, for over two decades. We have state-of-the-art experience in manufacturing with advanced and latest technology. They offer wide range of products such as rucksack (FY 2018-19):- 25000 MT/year, sleeping bags- 25000 MT/year, jackets- 20000 MT/year, wind cheaters- 30000 MT/year, etc. Their machine range includes binding m/c, computerized embroidery & quilting m/c, flat lock m/c, double needle m/c, etc.

## JAIDAYAL HITEX PVT. LTD., UTTAR PRADESH

Jaidayal Hitex had 25 years of experience in the field of Woven Sack Industry. They manufacture several packing material and all types of bags to serve the packaging needs of the world. They have a processing capacity of 30000 MT/year of polymers. Product include PP/HDPE Woven Bags & Sacks- 16000 MT/year with machinery like tape extrusion line, circular loom, lamination & printing m/c.

## TEXPERTS INDIA PVT. LTD., MUMBAI

Texpert India is an international textile sourcing, marketing and garment buying house since 2002. They facilitate international trade of about 10,000 tons/month of fibers, yarns, fabrics and garments. They source a wide range of man-made (polyester & nylon), natural fibres (cotton, flax, viscose, etc.) & Speciality fibres, Spun & filament yarn (Polyester, viscose, acrylic, etc.), Woven, Knitted, Nonwoven (spun bond, SMS & melt blown) & Anti-viral fabrics and Garments (men's, women's and kid's range, uniforms, functional workwear, etc.)

## AMBA TECHUTEX, TAMIL NADU

Amba Techutex, a partnership company engaged in the field of Technical Textiles. They have machinery i.e. hot melt lamination m/c with drum melter, fabric winding & unwinding m/c, end cutting & knife cutting m/c, etc. with production capacity (in FY 2019-20) of dry sheet bed Protector- 120 ton/year, terry fabric mattress protector- 50 ton/year, ironing table cushion- 25 ton/year, conveyor belt lamination- 2 lakh mtr/year, artificial leather lamination- 50000 mtr/year and PPE fabric & patient shifting fabric- 50 lakh mtr/year.

## LEISTER TECHNOLOGIES INDIA PVT. LTD., CHENNAI

Leister Technologies India is a 100% subsidiary of Leister Technologies AG, Switzerland. It is an R & D driven organization with a several patents. They offers the complete range of welding solutions for technical textiles (TT) including hot air, hot wedge, laser plastic welding, infrared heaters, tape welding machine, etc. Some of the TT applications for which they offer solutions are manufacturing of Truck Tarpaulins, Tents, Inflatables, Grain Storage Systems, Pond Liners, High Performance Sportswear, Oil Booms, Flotation devices, Water Proofing Liners, Roofing Membranes, Tensile Structures etc.

## BIDHATA INDUSTRIES PVT. LTD., MUMBAI

Bidhata has been manufacturing and supplying the synthetic and blended suitings and shirting fabrics- 15 million mtr/year for the past 33 years. Recently they have started manufacturing of repellent fabrics, moisture managed fabrics, anti-bacterial fabrics, stain/ soil release fabrics and flame retardant fabrics for applications such as schools uniforms, industrial workwear- 60 lakh mtr/year, gowns & aprons for medical purpose- 60 lakh mtr/year (FY 2019-20). They have Jet dyeing, drying range, singeing m/c, sanforising m/c, etc.

## ITTA PUBLICATIONS

Name of the Publication	Price*	Type of Publication
<b>ITTA Defence Handbook - Indian Technical Textile Products for Defence - A Global Reach</b>	<b>₹ 750</b>	<b>Handbook</b>
<b>International Conference on “Technology &amp; Machinery Innovations for Technical Textiles” held on 19th January, 2019</b>	<b>₹ 2000</b>	<b>Seminar Proceedings (CD-ROM)</b>
<b>3<sup>rd</sup> Defence-ITTA Joint Exhibition cum Seminar on Technical Textile held on 22<sup>nd</sup> &amp; 23<sup>rd</sup> May 2017</b>	<b>₹ 2000</b>	<b>Seminar Proceedings (CD-ROM)</b>
<b>2<sup>nd</sup> Defence-ITTA Joint Exhibition cum Seminar on Technical Textile held on 15<sup>th</sup> &amp; 16<sup>th</sup> June 2016</b>	<b>₹ 1000</b>	<b>Seminar Proceedings (CD-ROM)</b>
<b>First Indian Navy-ITTA Seminar on Clothing and Footwear held on 7<sup>th</sup> &amp; 8<sup>th</sup> January 2016</b>	<b>₹ 1000</b>	<b>Seminar Proceedings (CD-ROM)</b>
<b>Symposium on Medical Textile -Applications &amp; Opportunities held on 14<sup>th</sup> July 2015</b>	<b>₹ 1000</b>	<b>Seminar Proceedings (CD-ROM)</b>
<b>Symposium on Hi Tech Application Areas of Nonwoven held on 30<sup>th</sup> Jan 2015</b>	<b>₹ 1000</b>	<b>Seminar Proceedings (CD-ROM)</b>
<b>Handbook on Geosynthetics case studies of ITTA Members (2013)</b>	<b>₹ 750</b>	<b>Handbook</b>

\*Courier charges extra

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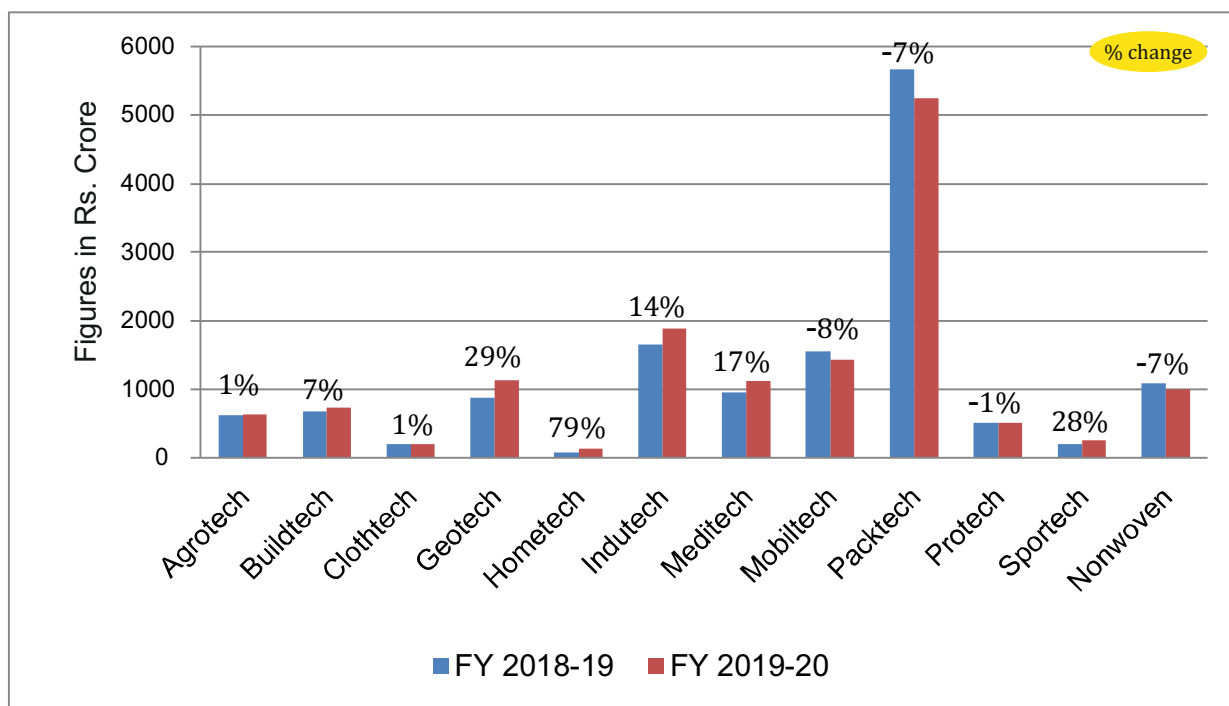
Tel: 022-25003098, Mob- +91 9769464616; Email: [info@ittaindia.org](mailto:info@ittaindia.org)



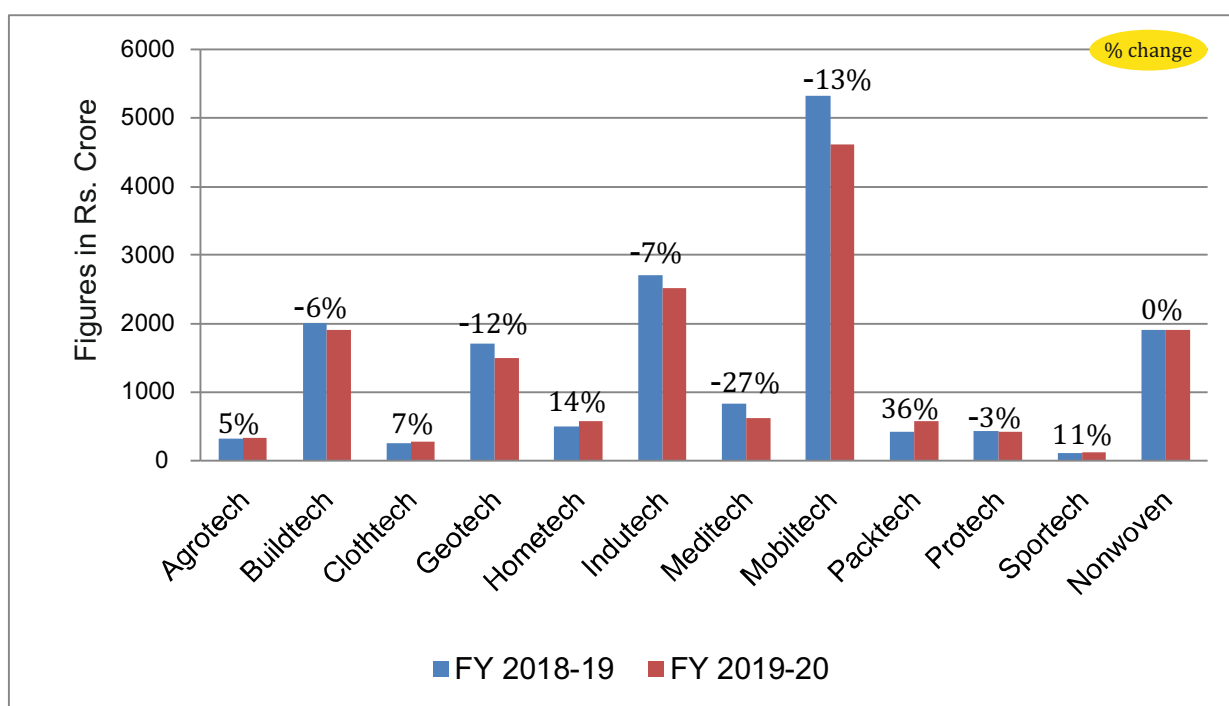
# EXPORT-IMPORT PERFORMANCE OF TECHNICAL TEXTILE PRODUCTS

## I. YEARLY EXPORT-IMPORT PERFORMANCE OF TECHNICAL TEXTILE PRODUCTS OF FY 2019-20

### I. EXPORT PERFORMANCE



### II. IMPORT PERFORMANCE



## II. MONTHLY EXPORT-IMPORT PERFORMANCE OF TECHNICAL TEXTILES PRODUCTS OF FY 2019-20

The data on export and import of 207 technical textile products/items is published as an indicator of foreign trade performance of technical textile industry in India.

### I. EXPORT PERFORMANCE

(Value in INR Cr.)

Sr. No	Segments	Mar 2019	Mar 2020	% Growth	Apr'18-Mar'19	Apr'19-Mar'20	% Growth
1	Agrotech	71	52	-26%	624	630	1%
2	Buildtech	89	59	-34%	678	728	7%
3	Clothtech	16	16	-2%	200	202	1%
4	Geotech	90	106	18%	875	1129	29%
5	Homotech	7	8	14%	76	136	79%
6	Indutech	167	134	-20%	1653	1878	14%
7	Meditech	83	86	3%	956	1118	17%
8	Mobiltech	137	98	-28%	1557	1429	-8%
9	Packtech	468	357	-24%	5671	5247	-7%
10	Protech	36	36	2%	514	511	-1%
11	Sportech	21	18	-14%	200	256	28%
12	Nonwoven	90	85	-5%	1080	1001	-7%
	<b>GRAND TOTAL</b>	<b>1275</b>	<b>1055</b>	<b>-17%</b>	<b>14084</b>	<b>14265</b>	<b>1%</b>

Data Source: ITTA Analysis on Ministry of Commerce and Industry (at 8 digit level of HSN Codes)

ITTA Analysis on data (Apr'18-Mar'19 vs. Apr'19-Mar'20) of Top Three Growth Sectors -

- a) **Homotech (+79%)** - Key Products: Gas mantles of Rayon, Impregnated & coated - Painted canvas and Fabrics covered with textile flocks.
- b) **Geotech (+29%)** - Key Products: Geogrid, Geo-composites and Non-Metallic Gabions.
- c) **Sportech (+28%)** - Key Products: Sport nets and Mattress Supports - cushions & pillows.

## II. IMPORT PERFORMANCE

(Value in INR Cr.)

Sr. No	Segments	Mar 2019	Mar 2020	% Growth	Apr'18-Mar'19	Apr'19-Mar'20	% Growth
1	Agrotech	30	15	-51%	322	338	5%
2	Buildtech	144	64	-56%	2012	1899	-6%
3	Clothtech	20	12	-41%	249	267	7%
4	Geotech	127	57	-55%	1705	1495	-12%
5	Hometech	40	27	-33%	500	571	14%
-+6	Indutech	203	171	-16%	2705	2513	-7%
7	Meditech	42	23	-46%	833	612	-27%
8	Mobiltech	443	275	-38%	5326	4608	-13%
9	Packtech	58	48	-17%	420	571	36%
10	Protech	30	16	-47%	434	419	-3%
11	Sportech	8	4	-57%	110	122	11%
12	Nonwoven	147	130	-12%	1912	1911	0%
	<b>GRAND TOTAL</b>	<b>1292</b>	<b>842</b>	<b>-35%</b>	<b>16528</b>	<b>15326</b>	<b>-7%</b>

*Data Source: ITTA Analysis on Ministry of Commerce and Industry (at 8 digit level of HSN Codes)*

### ITTA Analysis on data (Apr'18-Mar'19 vs. Apr'19-Mar'20) of Top Three Growth Sectors -

- Packtech (+36%)** - Key Products: Unbleached Jute Sacking fabrics & Hessian fabrics and Flexible Intermediate Bulk Containers (FIBC).
- Hometech (+14%)** - Key Products: Carpets & other textile floor coverings, Man-made fabrics covered with textile flocks and Carpet backing fabrics.
- Sportech (+11%)** - Key Products: Artificial turf, Mattress Supports - cushions & pillows and Tents of synthetic fibres



# UPCOMING EVENTS

## AUGUST 2020

### **WORLD OF WIPES (WOW) INTERNATIONAL CONFERENCE (Virtual)**

25-27 August 2020

Web: <http://www.worldofwipes.org/>

## SEPTEMBER 2020

### **CINTE TECHTEXTIL CHINA 2020**

2-4 September 2020 in Shanghai, China

Web: <https://cinte-techtextil-china.hk.messefrankfurt.com/shanghai/en.html>

### **OUTLOOK™ 2020 (Virtual)**

23-25 September 2020

Web: <https://www.edana.org/events/outlook/outlook-europe>

### **RESEARCH, INNOVATION & SCIENCE FOR ENGINEERED FABRICS (RISE) CONFERENCE (All Virtual)**

29-30 September 2020

Web: <https://www.riseconf.net>

### **F2F SOURCING SHOW 2020 (VIRTUAL TRADE EXPO)**

15 September-15 December 2020

Web: <https://www.fibre2fashion.com/trade-fairs/f2f-sourcing-show-2020-57591>

## OCTOBER 2020

### **WEAR CONFERENCE 2020 - SMART FABRICS & WEARABLE TECHNOLOGY (Virtual)**

13-15 October 2020

Web: <https://www.wearconferences.com>

### **COMPOSITES VIRTUAL SUMMIT**

19 October 2020

Web: <https://www.accelevents.com/e/composites20>

## NOVEMBER 2020

### **IFAI VIRTUAL EXPO 2020**

2-12 November 2020

Web: <https://ifaexpo.com>

## FEBRUARY 2021

### **FILTECH 2021**

23-25 February 2021 in Cologne, Germany

Web: <https://filtech.de>

## MARCH 2021

### **COMPOSITE-EXPO 2021**

30 March-1 April 2021 in Moscow, Russia

Web: <http://www.composite-expo.com>

## APRIL 2021

### **OUTLOOK™ 2021**

21-23 April 2021 in Lisbon

Web: <https://www.edana.org/events/outlook/outlook-europe-2021>

## MAY 2021

### **TECHTEXTIL 2021**

4-7 May 2021 in Frankfurt, France

Web: <https://techtextil.messefrankfurt.com/frankfurt/en.html>

## JUNE 2021

### **ITMA ASIA + CITME 2020**

12-16 June 2021 in Shanghai, China

Web: <http://www.itmaasia.com>

### **35<sup>TH</sup> INTERNATIONAL TEXTILE MACHINERY (ITM) EXHIBITION**

22-26 June 2021 in Istanbul

Web: <https://www.itmexhibition.com/itm2021>