



# INDIAN TECHNICAL TEXTILE ASSOCIATION

## E-BULLETIN

*e-magazine for members*

Issue No. 67

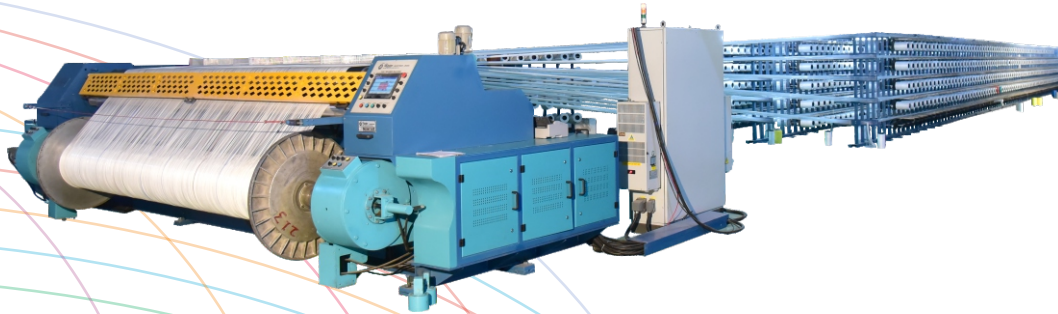
May-June, 2020

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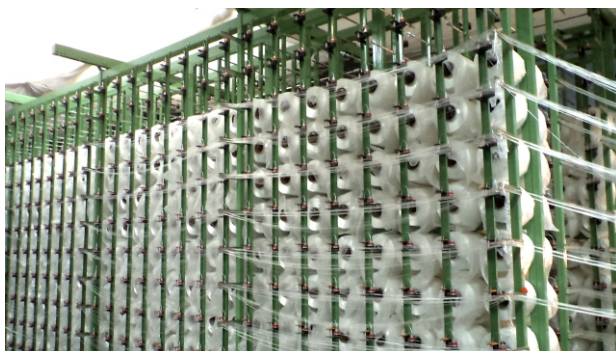
### Unwinding Creel



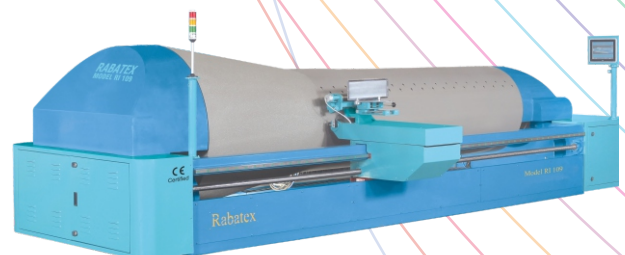
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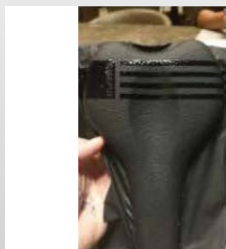
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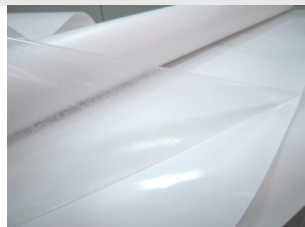
CLOTH WITH NO SEW



footwear vamp



no sew underwear



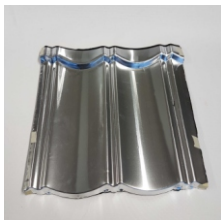
adhesive film with release paper



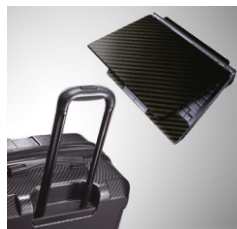
printable heat transfer pu film



HLT application for LOGO



roof and metal



carbon fiber



no release paper



splint hand



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# INDIAN TECHNICAL TEXTILE PRODUCTS FOR DEFENCE

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- *Collective Protection*
- *Load Carrying fabric*
- *Geosynthetics*



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**INDIAN TECHNICAL TEXTILE ASSOCIATION,**

'A' Block, BTRA, L.B.S. Marg, Ghatkopar (W), Mumbai 400086.

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



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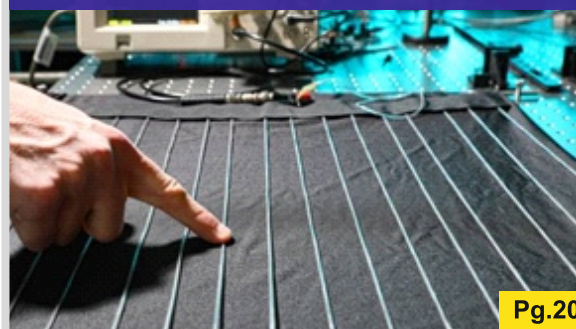
#### Reusable Respirator with Viraloff® Technology



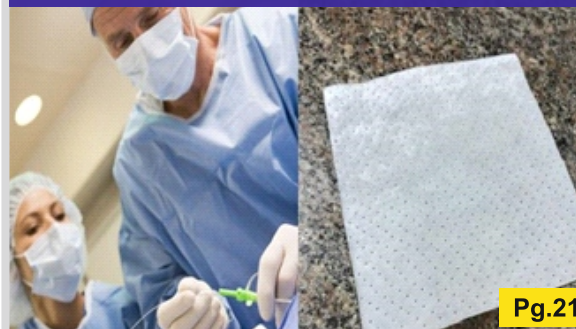
#### 3D Printers for production of carbon fibre components



#### Smart textiles powered by soft transmission lines



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



## INDIAN TECHNICAL TEXTILE ASSOCIATION

'A' Block, Gr-Floor, BTRA, L. B. S. Marg, Ghatkopar(W), Mumbai 400086  
Tel. :022-25003098 Mob:9769464616 Email : officeed@ittaindia.org Website : www.ittaindia.org

## ITTA ACTIVITIES

# MOT organised the webinar on Export Preparedness for Indian PPE Coveralls

The Webinar was convened by Ministry of Textiles (MOT) and Ministry of Commerce & Industry (MOC&I) regarding **"Export Preparedness for Indian PPE Coveralls"** on 27<sup>th</sup> May, 2020. The webinar was attended by Dr. Sundararaman K S, Chairman, ITTA, Govt. Officials and other PPE and Face Mask manufacturers.

Smt. Smriti Irani, Minister of Textiles, said that very soon the Indian Government can allow export of personal protective equipment (PPE); however before that, it will ensure enough supply for the domestic market in addition to ensuring high-quality standards as per the required parameters and should follow proper certification process.

Shri. Ravi Capoor, Secretary (Textiles) spoke on the broad objective of this webinar that India should now prepare for export market. India should be on world's mind when it comes to the sourcing of medical textiles and should start on the platform as a high quality producer of PPE coveralls, facemasks, gloves, etc. It's an opportunity for us to bridge the gap and emerge as a new leader for medical textiles in world. He also informed that they will discuss with DGFT & Commerce Ministry that nobody can export unless the manufacturers are certified by international agencies and meet the international stds. He said that PPE coveralls and fabric manufacturers should register themselves on GeM portal for future procurement.

Dr. Sundararaman emphasized on the major points for taking PPE export globally i.e. today Indian manufacturers had reached to certain level of competent and volume in creating level 4 products which are passing synthetic blood penetration test (ASTM 1670F) and if we want to go for export of these product, we need to pass anti-viral test (ASTM 1671F) & achieve breathability not less than 1200 g/m<sup>2</sup> for 24 hours. He also highlighted the next

generation of product will be Anti-viral coated fabrics for PPE coveralls in addition to barrier properties. Here we might lead in this market because this kind of products doesn't exist in mass volume yet and we may become leader in manufacturing this product. So look for new generation treatment, fabrics, reusables, certification, etc. as a way to lead to the market ahead of the established players.

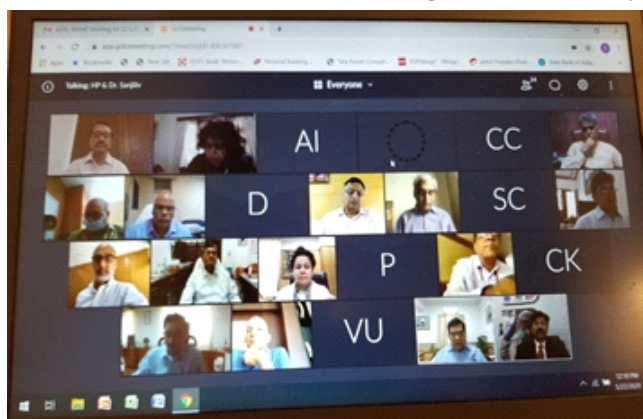
During the webinar, Quality Council of India (QCI) presented the presentation on PPE Regulations/ Standards & Conformity Assessment. Major points were discussed for exporting the Indian PPE ---

1. Comparative Landscape on Regulations & Standards prevailing in USA and EU & UK regions for Masks & N95 Respirators, Protective Clothing (Coverall, Gown, Apron, Scrub, Hazmat, Shoe/Head Cover), Gloves (Nitrile/Non-Powdered) , Face Shield & Goggles.
2. Six International companies are accredited in India by National Accreditation Board for Certification Bodies (NABCB) can facilitate the certification of PPE i.e. SGS India Pvt. Ltd, Intertek India Pvt. Ltd., Bureau Veritas Consumer Product Services (India) Pvt. Ltd., UL India Pvt. Ltd., TUV Rheinland India Pvt. Ltd. and TUV SUD South Asia. Industry can take their services.
3. Temporary Relaxations/ Waivers & Emergency Use Authorizations (EUA) in USA and EU & UK region are available now.
4. NABCB Accredited Certification Bodies for Medical Devices QMS as per ISO 13485.
5. NABCB Accredited Inspection Bodies for Textile Products as per ISO/IEC 17020.
6. Steps for certification of PPEs for Global Market Access.



## Secretary- Ministry of MSME held Meeting with ITTA & AEPC on PPE Kits

The Meeting through audio-video conferencing was held on 22<sup>nd</sup> May 2020 between the Secretary- Ministry of MSME, Shri A. K. Sharma, IAS with Senior Officials of ITTA and AEPC on topic- Medical/ Non-Medical Textiles - PPE. The meeting was attended by



Dr. Sundararaman K S, Chairman and Dr. Anup Rakshit, Executive Director, ITTA.

Following key points were discussed in the meeting:-

- Current Scenario of the Industry.
- How to enhance market share domestically and internationally.
- Is PPE industry ready for export market?
- How to strengthen the testing parameters for both domestic and International trade.

ITTA presented industry issues on shortage of Melt blown fabrics, N95 mask testing facilities, etc. and requested MSME ministry to financially help the industry in these areas. It was also mentioned that one Common Facility Center in Gujarat has been initiated by our industry (about 12 ITTA members) under the financial grant from MSME ministry. It is planned to have Melt blown fabric manufacturing & coating/lamination facilities & N95 mask testing machines with a Project cost of about Rs. 20 Crores.

## Webinar on “Is Indian technical textiles industry ready for a global play?”

ITTA jointly with The Indian Textile Journal (ITJ) organised a webinar on Technical Textile titled - **“Is Indian Technical Textile Industry ready for a global play?”** on 28<sup>th</sup> May 2020. The aim of the webinar was to assess the strengths and weaknesses of Indian technical textiles industry and new global opportunity before the industry in the post-COVID scenario.

The webinar was moderated by Mr. Avinash Mayekar, MD & CEO- Suvin Advisors Pvt. Ltd. Webinar Speakers were Mr. Amit Agarwal, Chairman- CTM Technical Textiles Ltd., Dr. Anup Rakshit, ED- ITTA, Mr. Pramod Khosla, CMD- Khosla Profil Pvt. Ltd. and Dr. Seshadri Ramkumar, Professor, Texas Tech University- USA. More than 1000 people participated mainly from the different industries.

Dr. Anup Rakshit talked about how technical textiles industry met the growing requirement of PPE kits

during to the COVID-19 pandemic with the help of government. He explained that to tackle the COVID-19 situation many textile and apparel manufacturer started the production of PPE. Because of this India has become the 2<sup>nd</sup> largest producer of PPE kit globally with the PPE Kit production of 4-5 Lakhs/day. ITTA helped many such Apparel manufactures on sourcing of approved fabrics, seam sealing methods to start the production. ITTA also helped many industry members during 2-3 months to understand the standards and how to develop the product. Earlier only SITRA, Coimbatore (CEO on Meditech) had testing facilities for PPE fabric and coveralls but today total 9 laboratories have the testing facilities. DRDO, Ordnance Factory's and Textile Committee Labs were inducted to give testing services to industry. But limited numbers of Labs are available in India to test N95 type of face masks. He also emphasized that Small & Medium enterprises engaged in technical textiles need support on

**FREE WEBINAR**

Hosted by **ITTA INDIAN TECHNICAL TEXTILE JOURNAL** Association Partner **INDIAN TECHNICAL TEXTILE ASSOCIATION**

## IS INDIAN TECHNICAL TEXTILES INDUSTRY READY FOR A GLOBAL PLAY?

28<sup>th</sup> May 2020 | Time: 10:50 - 11:45 AM (IST)

**MODERATOR & SPEAKERS**



**Avinash Mayekar**  
MD & CEO, Suvin Advisors Pvt Ltd



**Dr Anup Rakshit**  
Executive Director, Indian Technical Textile Association (ITTA)



**Dr Seshadri Ramkumar**  
Professor of Homecare & Advanced Materials Laboratory, Texas Tech University, USA



**Pramod Khosla**  
Chairman and Managing Director, Khosla Profit Pvt Ltd



**Amit Agarwal**  
Chairman, CTH Technical Textiles Ltd (Ahmedabad)

product development, understanding test standards, test methods and regulations. Lastly he mentioned that COVID-19 has given a fillip to the Indian technical textile industry and the market of this sector has grown to about Rs. 7000 Crores.

Mr. Amit Agarwal spoke on the Budget 2020-21 where the National Mission for Technical Textiles was announced wherein 4 components were introduced. Major 2 components i.e. Promotion and Market Development & Export Promotion are important to improve India's competitiveness in the global technical textiles. He suggested that govt. should look into HSN codes, GST, import duty and duty drawback which are bottleneck for the entrepreneur in growing their sector. He also shared his experience on Agrotech & Geotech Industry.

Mr. Pramod Khosla highlighted the key challenges faced by the technical textile manufacturers. While answering the question- he explained about the advantages of family owned enterprises in the highly knowledge intensive industry like Technical Textile because globally, many of the leading technical textiles companies are family owned.

## Webinar on "Is India Export Ready for Medical Protective Wear?"

Techtextil India (by Messy Frankfurt) and Indian Technical Textile Association (ITTA) jointly organised a webinar on 2<sup>nd</sup> June 2020 and the theme was - **"Is India Export Ready for Medical Protective Wear?"**. The eminent Panelists in the webinar were- Dr. K.S. Sundararaman, MD- Shiva Texyarn Ltd. & Chairman-ITTA, Dr. Anup Rakshit, ED - ITTA, Mr. Mahesh Kudav, MD, Venus Safety and Health Pvt. Ltd., Mr. Narinder Thapa, VP- Human Protection, AMD Arvind Ltd., Mr. Suvodeep Mukherjee, Sr. General Manager- TUV SUD South Asia Pvt. Ltd., Mr. Ashit Kundra, MD & Regional Director-Assurance-South Asia & Middle East, Eurofins Spectro and Mr. Pavan Kapoor, MD, IIGM Pvt. Ltd. Webinar received overwhelming response and more than 1400 people participated mainly from the technical textile industry.

**WEBINAR LIVE**  
2 JUNE 2020  
4:00 pm - 5:00 pm

### "Is India EXPORT Ready For Medical Protective Wear?"



**Dr. K.S. Sundararaman**  
Managing Director  
Shiva Texyarn



**Dr. Anup Rakshit**  
Executive Director, Indian  
Technical Textile Association (ITTA)



**Narindra Thapa**  
Vice president, Human Protection  
AMD Arvind Limited



**Mahesh Kudav**  
Managing Director  
Venus Safety and Health Pvt Ltd



**Dr. Prakash Vasudevan**  
Director, The South India Textile Research  
Association (SITRA)



**Ashit Kundra**  
Managing Director & Regional Director  
Assurance - South Asia & Middle East,  
Eurofins Spectro

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\*Limited seats available



Dr. Sundararaman spoke about the different fabrics and composition of fabrics used to manufacture PPE coverall so that it passes the International standards. He also emphasized on an important subject that the fabric should not just pass the synthetic blood penetration test (ASTM 1670F), but should also pass anti-viral test (ASTM 1671F) which is necessary to keep medical professionals safe from virus transmission. He talked about how his company has become one of the most trusted suppliers of fabric that goes into making body coveralls for medical textiles.

Dr. Anup Rakshit explained the overview of the industry and highlighted India's journey of coveralls' and facemasks production from a couple of thousands to almost 4-5 lakh on a daily basis. The fabric production to make these coveralls has also reached 20 Lakhs meters per day and became the 2<sup>nd</sup>

largest producer of PPE kit globally. However, he also expressed the concern about the sub-standard quality of fabrics which are being manufactured domestically and that's certainly not something that can help India for export. He also informed that if industry wants to be export ready, it is necessary that PPE Coverall & mask manufacturers should implement PPE QMS systems as per ISO-13485/ISO-9001, follow the CE & US-FDA guidelines/regulations, understand the Quality requirements (product specifications) of the buyers and produce such products with consistent Quality.

Mr. Narinder Thapa gave the market information as predicted by WHO. Mr. Suvodeep Mukherjee, TUV SUD and Mr. Ashit Kundra, Eurofins Spectro explained the process of getting CE/US-FDA and NIOSH certifications.

## Digital Conference for Textile Industry organized by CII

CII, Coimbatore organised the Digital Conference for Textile Industry - **"Prospering In Challenging Times"** on 4<sup>th</sup> June 2020. Dr. Anup Rakshit, ED, ITTA was invited as a Panelist in the conference. The Conference focused on economic reforms impacting and Disrupting Current Paradigms, and Reimagining Textiles Industry to Make Them Future Ready. Topics addressed in the conference - -

- a. Awareness on Government Schemes and Financial Support for Textile Industries
- b. Opportunities for the Textile Industries in the Indian Defence Sector and Global Defence Market
- c. The Future of Indian Textiles and Apparel Industry
- d. Opportunities for Technical Textiles in India
- e. Current & Futuristic Innovations in Textile & Apparel Industry



Dr. Anup Rakshit, Executive Director, ITTA presented the topic on "Opportunities for Technical Textiles in India". He highlighted the importance of 12 segments of the Technical Textile, its Current Market Size & Segment wise Growth Rate. The Export-Import Performance of Technical Textile Products, different manufacturing technologies and raw material issues in High Performance Synthetics Fibres. The opportunities in High Growth Segments i.e. Import

Substitution giving major thrust on Product Innovation-with minor or no investment and Identify Couple of High Growth Segments, he mentioned, are- Medical & Hygiene products- Surgical gowns, masks & medical wipes, napkins & diapers; Protective Textiles- Flame Retardant/ Resistant, Chemical protection garments-to protect from fire, heat, chemicals & biological hazards ; Industrial Textiles- Use of specialized Filters can prevent Air and Water pollution to protect

environment; Buildtech & Geotech- Products used in Construction Industry and Agrotech- Products used in Agriculture- different types of nets, mats, etc. However, challenges are- availability of High Performance Fibres/ filaments, Machinery & Technology, Shortage of skilled manpower, Eco-Friendly chemicals & manufacturing processes. Also it is necessary to Strengthen R&D & give thrust on Innovation.

## Panel Discussion on Technology & Design in Medical and Protective Textiles

The Department of Textile and Fashion Technology, College of Home Science Nirmala Niketan, University of Mumbai organised the Panel Discussion on Technology & Design Collaboration for Future Innovation in Medical and Protective Textiles & Apparel - Pandemic Era on 5<sup>th</sup> June 2020. Dr. Anup Rakshit, ED, ITTA was invited as a Panelist in the conference. The audience consists of academicians, students and manufacturers from apparel, home and technical textile industry.

The moderator of panel discussion is Dr. Ela Dedhia, Head Department of Textile & Fashion Technology. Panelists were Mr. Karan Berry, Designer & Consultant - Owner of Brand "Karleo", Ms. Geeta Castelino, Educationist - Fashion & Textile Industry Advisor, Dr. Anup Rakshit, Executive Director - ITTA, Mrs. Bhavini Parekh, Designer & Entrepreneur Brand "BUNKOJUNKO" and Mrs. Pooja Kamath, Manager Special Projects - Mask for Humanity.

Dr. Anup Rakshit shared the current scenario of coveralls' and facemasks production from a couple

of thousands to almost 4-5 lakh on a daily basis and became the 2<sup>nd</sup> largest producer of PPE kit globally. In addition to Technical Textile Industry, a lot of apparel manufacturers are also mobilized in manufacturer the PPE fabric and coverall. He informed that

sufficient testing facilities for PPE fabric and coveralls (9 laboratories) are now available. Currently there are around 400-500 fabric manufacturers and >500 garment manufacturers. He talked about the difference between the Surgical Facemask (2/3 ply) and N95 mask and their technology i.e.

spun bond and melt blown fabrics are used in making masks. Reusable 3-ply masks are becoming popular as common people have to wear them as per regulation, but some basic comfort properties should be incorporated while designing the masks. As both are widely acceptable in today's scenario because disposal or single use is becoming very complicated. So, reusable masks are slowly coming in for common man. He suggested that if India needs to be export ready, the quality of raw material and process must not be overlooked.

Join us for a **LIVE** Panel Discussion on Friday, 5<sup>th</sup> June 2020 3:30 pm

**TECHNOLOGY & DESIGN COLLABORATION FOR FUTURE INNOVATION IN MEDICAL AND PROTECTIVE TEXTILES & APPAREL - PANDEMIC ERA**

**EXPERT PANELISTS**

- Mr. Karan Berry, Designer & Consultant, Owner of Brand "Karleo"
- Ms. Geeta Castelino, Educationist, Fashion & Textile Industry Advisor
- Dr. Anup Rakshit, Executive Director, ITTA, ITRA
- Mrs. Bhavini Parikh, Designer & Entrepreneur, Brand "BUNKOJUNKO"
- Mrs. Pooja Kamath, Manager, Special Projects, Mask for Humanity

**ORGANIZING COMMITTEE**

- Dr. Anjali Srivastava, Assistant Professor
- Dr. Ela Manoj Dedhia, IQAC Convener, Head, Dept. of Textile and Fashion Technology (Moderator)
- Dr. Pratima Goyal, Associate Professor

Registration is mandatory. E-certificates will be provided.

College of Home Science Nirmala Niketan, Affiliated to University of Mumbai, NAAC Accredited 'A' Grade, Department of Textile and Fashion Technology

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# DEVELOPMENT OF INDIAN STANDARDS ON TECHNICAL TEXTILES

## I. Meeting of BIS Sectional Committee on Technical Textiles for Agro-Tech (TXD 35)

The 14<sup>th</sup> Meeting of Technical Textiles for Agro-Tech Sectional Committee, TXD 35 was held through audio-video conferencing on 18<sup>th</sup> May 2020 under the Chairmanship of Dr. U.K. Gangopadhyay. As the member of committee, Dr. Anup Rakshit, ED, ITTA attended the meeting.

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

1. Doc: TXD 35 (15194)] is finalized for publication as Indian standards (IS).

2. Committee decided that draft revision of IS 16718:2017 to be prepared by M/s Reliance Industries Ltd.
3. Preliminary draft prepared on HDPE laminated woven lay flat tube for rain irrigation system shall be issued under wide circulation.
4. Committee decided not to make any changes in existing IS 15907: 2010 'HDPE Woven beds for Vermiculture' for the time being.

## II. Meeting of BIS Sectional Committee on Geo-Synthetics (TXD 30) and Industrial Fabrics (TXD 33)

The 24<sup>th</sup> Meeting of Geo-Synthetics Sectional Committee, TXD 30 in joint session with 13<sup>th</sup> Meeting of Industrial Fabrics Sectional Committee, TXD 33 was held on 29<sup>th</sup> May 2020 under the Chairmanship of Dr. A. N. Desai through audio-video conferencing. As the member of committee, Dr. Anup Rakshit, ED, ITTA attended the meeting.

Highlights of TXD 30 –

1. DOC. TXD 30 (14682), DOC. TXD 30 (14683) & DOC. TXD 30 (15158) are finalized for publication as Indian standards (IS).
2. Committee decided that draft IS stds based on these Six ISO stds i.e. ISO 9863-1:2016, ISO 9864:2005, ISO 10318-1:2015, ISO 10318-

2:2015, ISO 10769:2011 & ISO 10773:2011 will be prepared by BIS and same will be issued under wide circulation.

3. Committee had asked for technical inputs on the drafts of Polymer Gabions, Prefabricated vertical drains and Geotextile Tubes during the next meeting.

Highlights of TXD 33 –

1. Preliminary drafts prepared on Bolting Cloth for Screen Printing Applications & Tea Bag Filter Fabric shall be issued under wide circulation.
2. Committee requested CEO- Indutech (PSG College) to expedite work on the pending draft standards and hold Panel meeting at the earliest.

## III. Meeting of BIS Sectional Committee on Technical Textiles for Medtech Applications (TXD 36)

The 13<sup>th</sup> Meeting of Technical Textiles for Medtech Applications, TXD 36 was held on 4<sup>th</sup> June 2020 through audio-video conferencing under the Chairmanship of Dr. Prakash Vasudevan, Chairman, SITRA. Dr. Anup Rakshit, ED, ITTA attended the meeting as committee member.

Dr. Vasudevan briefed the committee that in a high level meeting Chaired by Secretary (Textiles) it has been decided that BIS will work out in urgent manner and issue a standard for “PPE Coveralls for COVID-19” on URGENT basis. The standard will be in line with the Ministry of Health & Family Welfare's

guidelines for PPE Coveralls, dated 02<sup>nd</sup> March, 2020. The Committee then considered the draft specification of Doc: TXD 36 (15776) - Medical Textiles - Coveralls for COVID-19 - Specification and also discussed the comments received from the

members. After detailed deliberation, the committee finalized the above standard for publication as Indian standards (IS) for healthcare workers due to Novel Corona virus (COVID-19) pandemic.

## 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

For Copies Contact  
**INDIAN TECHNICAL TEXTILE ASSOCIATION,**  
 'A' Block, BTRA, L.B.S. Marg, Ghatkopar (W), Mumbai 400086  
 Tel: 022-25003098, Mob- +91 9769464616; Email: [info@ittaindia.org](mailto:info@ittaindia.org)



## NATIONAL NEWS

# India becomes world's 2<sup>nd</sup> largest manufacturer of PPE body coveralls

India has become the world's second largest manufacturer of personal protective equipment (PPE) body coveralls within a short time span of two months, the government said on 21<sup>st</sup> May 2020. China is the world's leading producer of PPE body coveralls, crucial to safeguard against the coronavirus(COVID-19) pandemic.



In a statement, the Ministry of Textiles said it has been taking several steps to ensure that both quality and quantity of PPE coveralls going up to the desired levels within a very short span of time of two

months, "thereby catapulting India into the world's second largest manufacturer of body coveralls, next only to China".

The Ministry has taken steps to ensure that only certified players across the entire supply chain are allowed to supply body coveralls to governments, an official statement said. Besides, Textiles Committee, Mumbai, too will now test and certify PPE body

coveralls required for healthcare workers and other COVID-19 warriors.

Mr. Ajit Chavan, Secretary, Textiles Committee and Additional Textile Commissioner, Ministry of Textiles, explained how the committee rose up to the occasion to surmount the challenge of non-availability of reputed domestic manufacturers of PPE testing equipment.

"We faced the humongous challenges of non-availability of domestic manufacturers of repute and incessant delay/long gestation period to import machine from China as also challenges of ever-increasing prices by the opportunist companies in China due to demand for such equipment the world over. We therefore decided to do it indigenously," he said.

The secretary informed how the testing equipment will help the nation during the crisis: "With the acquisition of this equipment and with a concrete plan to add some more equipment as per need, we will be able to address not only the quantitative but also the qualitative requirements involved in the testing of body coveralls worn by the frontline health workers and other COVID-19 warriors".

[Source-<https://www.thehindu.com/news/national/india-becomes-worlds-second-largest-manufacturer-of-ppe-body-coveralls-next-to-china-government/article31643400.ece>]

## FM announce measures for relief and credit support related to businesses, especially MSMEs

Hon'ble Finance Minister, Smt. Nirmala Sitharaman announced measures for relief and credit support related to businesses, especially MSMEs to support Indian Economy's fight against COVID-19 are mentioned below:

1. **Rs 3 lakh crore Emergency Working Capital Facility for Businesses, including MSMEs** - To provide relief to the business, additional working capital finance of 20% of the outstanding credit as on 29 February 2020, in

the form of a Term Loan at a concessional rate of interest will be provided. This will be available to units with upto Rs 25 crore outstanding and turnover of up to Rs 100 crore whose accounts are standard. The units will not have to provide any guarantee or collateral of their own. The amount will be 100% guaranteed by the Government of India providing a total liquidity of Rs. 3.0 lakh crores to more than 45 lakh MSMEs.

2. **Rs 20,000 crore Subordinate Debt for Stressed MSMEs** - Provision made for Rs. 20,000 cr subordinate debt for two lakh MSMEs which are NPA or are stressed. Government will support them with Rs. 4,000 Cr. to Credit Guarantee Trust for Micro and Small enterprises (CGTMSE). Banks are expected to provide the subordinate-debt to promoters of such MSMEs equal to 15% of his existing stake in the unit subject to a maximum of Rs 75 lakhs.
3. **Rs 50,000 crores equity infusion through MSME Fund of Funds** - Govt. will set up a Fund of Funds with a corpus of Rs 10,000 crore that will provide equity funding support for MSMEs. The Fund of Funds shall be operated through a Mother and a few Daughter funds. It is expected that with leverage of 1:4 at the level of daughter funds, the Fund of Funds will be able to mobilise equity of about Rs 50,000 crores.
4. **New definition of MSME** - Definition of micro manufacturing and services unit was increased to Rs. 1 crore of investment and Rs. 5 crore of turnover. The limit of small unit was increased to Rs. 10 crore of investment and Rs 50 crore of turnover. Similarly, the limit of a medium unit was increased to Rs 20 crore of investment and Rs. 100 crore of turnover. After the package announcement on 13th May, 2020, there were several representations that announced revision is still not in tune with market and pricing conditions and it should be further revised upwards. Keeping in mind these representations, it was decided to further increase the limit for medium manufacturing and service units. Now it will be Rs. 50 crore of investment and Rs. 250 crore of turnover.
5. **Other Measures for MSME** - e-market linkage

for MSMEs will be promoted to act as a replacement for trade fairs and exhibitions. MSME receivables from Government and CPSEs will be released in 45 days.

6. **No Global tenders for Government tenders of up to Rs 200 crores** - General Financial Rules (GFR) of the Government will be amended to disallow global tender enquiries in procurement of Goods and Services of value of less than Rs 200 crores.
7. **Employees Provident Fund Support for business and organised workers** - The scheme introduced as part of PMGKP under which Government of India contributes 12% of salary each on behalf of both employer and employee to EPF will be extended by another 3 months for salary months of June, July and August 2020. A total benefit accrued is about Rs 2500 crores to 72.22 lakh employees.
8. **EPF Contribution to be reduced for Employers and Employees for 3 months** - Statutory PF contribution of both employer and employee reduced to 10% each from existing 12% each for all establishments covered by EPFO for next 3 months. This will provide liquidity of about Rs.2250 Crore per month.
9. **Rs 30,000 crores Special Liquidity Scheme for NBFC/HFC/MFIs** - Govt. will launch Rs 30,000 crore Special Liquidity Scheme, liquidity being provided by RBI. Investment will be made in primary and secondary market transactions in investment grade debt paper of NBFCs, HFCs and MFIs. This will be 100 percent guaranteed by the Government of India.
10. **Rs 45,000 crores Partial credit guarantee Scheme 2.0 for Liabilities of NBFCs/ MFIs** - Existing Partial Credit Guarantee scheme is being revamped and now will be extended to cover the borrowings of lower rated NBFCs, HFCs and other Micro Finance Institutions (MFIs). Government of India will provide 20 percent first loss sovereign guarantee to Public Sector Banks.
11. **Rs 90,000 crore Liquidity Injection for DISCOMs** - Power Finance Corporation and Rural Electrification Corporation will infuse



liquidity in the DISCOMS to the extent of Rs 90000 crores in two equal installments. This amount will be used by DISCOMS to pay their dues to Transmission and Generation companies. Further, CPSE GENCOs will give a rebate to DISCOMS on the condition that the same is passed on to the final consumers as a relief towards their fixed charges.

**12. Relief to Contractors** - All central agencies like Railways, Ministry of Road Transport and Highways and CPWD will give extension of up to 6 months for completion of contractual obligations, including in respect of EPC and concession agreements

**13. Reliefs to Real Estate Projects** - State Governments are being advised to invoke the Force Majeure clause under RERA. The registration and completion date for all registered projects will be extended up to 6 months and may be further extended by another 3 months based on the State's situation. Various statutory compliances under RERA will also be extended concurrently.

**14. Tax Relief to Business** - The pending income

tax refunds to charitable trusts and non-corporate businesses and professions including proprietorship, partnership and LLPs and cooperatives shall be issued immediately.

#### 15. Tax related measures -

##### Ø **Reduction in Rates of 'Tax Deduction at Source' and 'Tax Collected at Source'** -

The TDS rates for all non-salaried payment to residents, and tax collected at source rate will be reduced by 25 percent of the specified rates for the remaining period of FY 20-21. This will provide liquidity to the tune of Rs 50,000 Crore.

Ø The due date of all Income Tax Returns for Assessment Year 2020-21 will be extended to 30 November, 2020. Similarly, tax audit due date will be extended to 31 October 2020.

Ø The date for making payment without additional amount under the "Vivad Se Vishwas" scheme will be extended to 31<sup>st</sup> December, 2020.

[Source - <https://pib.gov.in/PressReleasePage.aspx?PRID=1623601>]

## Prices of N-95 masks down by up to 47% after NPPA advisory

Leading manufacturers and importers of N-95 masks have reduced prices by up to 47% after regulator NPPA stepped in to ensure the availability of this respiratory protection device at affordable rates in the country, the Ministry of Chemicals and Fertilizers said on 25<sup>th</sup> May 2020. N-95 masks were earlier being sold in the market for Rs. 150 to 300 per unit and after the advisory by the National Pharmaceutical Pricing Authority (NPPA), prices have been cut.

To address the issue of higher prices of the N-95 Masks, NPPA intervened to bring down the prices. In this regard, in order to ensure availability of N-95 Masks at affordable prices in the country, NPPA issued an Advisory on 21st May 2020 to all the manufacturers/ importers/ suppliers of the N-95 Masks to maintain parity in prices for non-government procurements and to make available the same at reasonable prices.

The NPPA has also submitted before the Bombay High Court on the plea on bringing price cap on the protective device that it is looking at mismatch in the demand-supply of N-95 masks in the country and has advised manufacturers, importers and suppliers to cut prices voluntarily, the statement said.

"After issuing such an advisory, major manufacturers/ importers of N-95 masks have reduced their prices significantly up to 47 per cent leading to availability of N-95 masks in the country at affordable prices," it added.

[Source - <https://pib.gov.in/PressReleasePage.aspx?PRID=1626743>]

## Innovative Low Cost PPE developed by Indian Navy Paves way for Rapid Mass Production

In a major step towards rapid mass production of the Medical Personal Protective Equipment (PPE) developed by the Indian Navy, a patent has been



successfully filed by the Intellectual Property Facilitation Cell (IPFC) of Min of Defence, in association with National Research Development Corporation (NRDC), an enterprise under Min of Science & Technology.

The low cost PPE has been developed by a Doctor of Indian Navy, posted

at the recently created Innovation Cell at Institute of Naval Medicine (INM), Mumbai. A pilot batch of PPEs has already been produced at Naval Dockyard Mumbai.

The PPE developed by the Navy is made of a special fabric which affords high level of protection along with high 'breathability' as against other PPEs available in the market and is therefore more suitable for use in hot and humid weather conditions as prevalent in India. The technology has also been tested and validated by ICMR approved Testing Lab.

Concerted efforts are now ongoing by a core team of Navy, IPFC and NRDC to commence mass production of this low cost PPE. Eligible firms are being identified by NRDC for taking up licensed production of the PPEs on a fast track.

A very significant and urgent requirement in the fight against the Corona Virus is the need to equip our front line health care professionals with comfortable PPEs, which can be produced indigenously at an affordable cost without much capital investment. The firms/ startups interested to take up licensed production may approach [cmdnrdc@nrdcindia.com](mailto:cmdnrdc@nrdcindia.com).

**[Source-<http://ddnews.gov.in/national/patenting-innovative-low-cost-ppe-developed-indian-navy-paves-way-rapid-mass-production>]**

## IIT Delhi startup launches 'Reusable Antimicrobial Mask'

An IIT Delhi startup "Nanosafe Solutions" has launched an antimicrobial and washable face mask "NSafe", which is reusable up to 50 launderings, thus greatly cutting down the cost of use. The team consists of Dr. Anasuya Roy, an IIT Delhi Alumnus, Founder and CEO of Nanosafe Solutions Pvt. Ltd. and Prof. Mangala Joshi, Department of Textile and Fibre Engineering, IIT Delhi and also Founder and Director of the startup.

NSafe mask is a highly engineered triple-layered product consisting of - inner hydrophilic layer for comfort, middle layer having antimicrobial activity and outer most layer having water and oil repellent

behaviour.

NSafe mask has 99.2% bacterial filtration efficiency (at 3 microns) and complies with ASTM standards of breathability and splash resistance. The mask is extremely comfortable and breathable. Elastic band in the chin region and wire in the nose region provides adequate fit of the mask to the wearer.

Prof. Mangala Joshi, Department of Textile and Fibre Engineering, IIT Delhi said, "We believe this is the first fabric based antimicrobial face mask launched in India, which is washable and reusable along with very high Bacterial Filtration Efficiency as tested



according to ASTM standards. It is engineered to have very good breathability and comfort.”

Dr. Anasuya Roy, Founder and CEO of Nanosafe Solutions added, “The mask has been designed to maximize durability and dimensional stability, so that the mask can be reused 50 times. Effective reusability is an important factor as single-use masks will cause huge disposal issues”. NSafe mask enhances protection to the wearer through three different mechanisms: mechanical filtration, antimicrobial decontamination and repulsion of aerosol droplets.

NSafe masks are dry-cleaned before packaging and packaged under hygienic conditions. After each usage (approximately 8-9 hours), the mask has to be hand washed in cold water with mild detergent and dried thoroughly in the sunlight. After 50 usages, the mask has to be disposed in a sealed polyethylene bag and put in the recyclable waste bin. NSafe mask is a premium product that is likely to be available at MRP of Rs. 299 (Pack of 2) and Rs. 589 (Pack of 4). The startup has started manufacturing the masks.

**[Source-<http://old.iitd.ac.in/content/iit-delhi-startup-launches-%e2%80%98reusable-antimicrobial-mask%e2%80%99>]**

## Reusable Respirator with Viraloff® Technology

Carbonado, a flagship mobility gear brand of Indian company Bplugd IOT, has come out with a reusable respirator - AerFit NEO. The respirators are treated with Swedish Polygiene ViralOff® textile treatment technology. AerFit NEO is a filtering face-piece respirator (face mask) that is reusable. The company has a broad distribution network in India.

The company will place orders in volumes of 500,000 to one million (1,000,000) respirators in the coming three to six months and has a broad distribution network of multiple retail chains in India, the Bplugd webstore and Amazon, among others.

“More than ever, there is a global need for products with an anti-viral treatment that is reliable and effective. We want our AerFit respirators to not just protect people but also give them the assurance that they can breathe easy and with confidence. This is why Carbonado (Bplugd) has chosen to partner with a trustworthy name like Polygiene so that the end customers can breathe easy indeed and gives out a healthy sigh of relief”, says Mr. Pradeep Reddy, the founder of Bplugd IOT.



“Thanks to a local reinforcement on both the technical and the sales side, as well as dedicated work during the last year, demand has increased in India. With the Covid-19 pandemic we see an additional rise in inquiries and a number of Indian partners coming onboard - Carbonado by Bplugd IOT is a good example of this. India has a huge internal market and is also an important production hub globally,” says Ms. Ulrika Bjork, CEO Polygiene.

**[Source-<https://www.textileworld.com/textile-world/2020/05/polygiene-treating-respirators-from-carbonado-with-viraloff/>]**

## Herbal medicine loaded smart bandage for wounds

Scientists from Institute of Advanced Study in Science and Technology (IASST) an autonomous institute of the Department of Science & Technology, Govt. of India have developed a pH-responsive smart

bandage that can deliver the medicine applied in the wound at the pH that is suitable for the wound. The scientists have developed the delivery system by fabricating a nanotechnology-based cotton patch

that uses cheap and sustainable materials like cotton and jute.

A nano-composite hydrogel bound compact cotton patch incorporated with jute carbon dots was fabricated to carry out the drug release. Jute has been used for the first time as a precursor in synthesizing fluorescent carbon dots, and water was used as the dispersion medium. Herbal formulation neem leaf (*Azadirachta indica*) extract was taken as the model drug to exemplify the release study. The jute carbon dots were immobilized in the hydrogel matrix-bound cotton patch and could effectively exemplify different drug release pattern at two different pH levels --lower at pH 5 than at higher at pH 7.

The stimuli-responsive nature of the fabricated hybrid cotton patch acts as an advantage as in case of growth of bacterial infections in a wound, and this induces release of drug at lower pH which is favourable under these conditions. This pH responsive behaviour of the fabricated cotton patch lies in the unique behaviour of the jute carbon dots incorporated in the system because of the different molecular linkages formed during the carbon dot preparation. The team had earlier fabricated a compact cotton patch that showed excellent wound

healing ability but posed a disadvantage because of uncontrolled release when drug was loaded to it. In the present work, they controlled the drug release of the cotton patch, thereby making it a smart wound dressing material.

Around any wound, pH changes due to bacterial infections. Hence they developed a pH-responsive drug delivery system with the cotton patch. Carbon dots which are zero-dimensional nano-materials, due to their unique carbon core and surface functional groups can be designed to exhibit different behaviour towards different pH. They are also known for their low toxicity and great biocompatibility. Therefore, different carbon dots were used as a nano-filler in fabricating hybrid cotton patches to check the drug release behaviour.

The development of such a stimuli-responsive behavior of hybrid cotton patch paves the way for utilizing it as smart wound-dressing or bandage material. Use of cheap and sustainable material like cotton and jute to fabricate the patch makes the whole process biocompatible, non-toxic, low cost and sustainable.

[Source - <https://pib.gov.in/PressReleasePage.aspx?PRID=1627860>]



### 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.



## INNOVATIONS AND TECHNOLOGY

### *COMPOSITES - 3D printers for carbon fibre components, Reinforced Glass fibre*

#### 3D Printers for production of carbon fibre components

Brooklyn-based additive manufacturer Makerbot has launched a carbon fiber edition of its METHOD 3D printer, its first desktop 3D printer designed specifically for the production of carbon fiber components. Designed to enable customers to create stronger and more accurate parts, the new range expands on the machine's compatible manufacturing materials. Targeting applications in metal end-use products and replacement parts such as manufacturing tools and fixtures, the carbon fiber edition is priced at £4,499.



“With the launch of METHOD Carbon Fiber, we are making composite 3D printing more accessible to more users than ever before, and opening the door to new applications,” said Mr. Nadav Goshen, President and CEO of MakerBot. Makerbot's new Carbon Fiber Edition comes pre-configured with an updated composite extruder that is optimized to handle abrasive materials. Featuring hardened metal drive gears, a metal filament switch, and an interchangeable hardened steel nozzle, the component allows it to 3D print MakerBot's nylon carbon fiber material.

Makerbot says the 3D printer's heated chamber produces parts with an improved surface finish compared to previous models, especially when combined with the company's new heated chamber annealing feature. The updated system allows users

to print parts with complex geometries and an improved surface finish by using soluble or breakaway supports. The METHOD's dry-sealed filament bays also help to keep the moisture-sensitive nylon carbon fiber material dry, resulting in better print quality and reliability.

Since the updated machine is able to reach a chamber temperature of up to 110°C, MakerBot plans to offer additional composite materials for the system, and release the composite extruder for previous iterations in the future. Makerbot's new carbon

fiber provides a lightweight alternative to metal for structural applications such as vehicular brackets and inspection gauges. Due to its strong thermal and mechanical properties, the metal is often used in the automotive and aerospace industries. Moreover, its strong thermal and mechanical properties allow companies to use it as a cost-efficient alternative to metals. “Nylon carbon fiber is one of the most in-demand and exciting classes of materials. Its high strength, heat resistance, and stiffness properties make it ideal for printing metal replacement parts, helping reduce costs and increase overall efficiency for companies,” said Mr. Goshen.

[Source-<https://3dprintingindustry.com/news/makerbot-launches-carbon-fiber-desktop-3d-printers-172008/>]

#### Reinforced Glass fibre XEGLASS 17 for sports and industrial sectors

Xenia Materials based in Italy has come out with a new family of compounds PEBA reinforced glass fibre - XEGLASS 17. The new product meets the requirements of sport, consumer and industrial

goods sectors. Xenia produces high-performing thermoplastic composites reinforced by fibre and additives. XEGLASS 17 combines the outstanding aesthetic quality with easy processability feature.



PEBA is a flexible polyamide, plasticiser free, with outstanding dynamic features such as ability to damp vibrations and noise, even at high frequencies. This low friction polymeric base is characterised by high creep resistance, low density, excellent flexibility, high energy return and impact strength

over a wide temperature range.

The glass fibre reinforcement allows the achievement of mechanical features, much greater than the ones of the pure polymer. The glass fibre emphasises the high chemical resistance and the great impact strength at low temperatures. XEGLASS 17 composites have low hygroscopic absorption and dimensional stability. These are colourable and are also available in bio-compatible grades. By combining the outstanding aesthetic quality and the easy processability, XEGLASS 17 grades meet the requirements of sport, consumer and industrial goods sectors.

[Source-<https://www.eppm.com/materials/xenia-materials-launches-new-range-of-compounds/>]

## ***E-TEXTILE - Touch sensitive cords & Fibers Powered by Soft Transmission Lines***

### **Smart textiles powered by soft transmission lines**

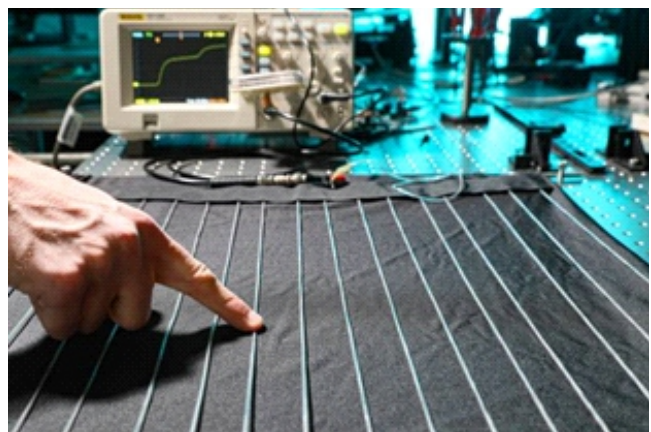
Switzerland based EPFL researchers from the Laboratory of Photonic Materials and Fiber Devices have developed a new technology that can be used to detect the movement of the body. The researchers say that the breakthrough could result in clothing or hospital bed sheets that can monitor breathing and other vital movements. The electronic fibers could also be used to allow robots to interact more safely and intuitively with humans.

The team says that the soft transmission lines they've developed have opened the door to these possibilities. The sensors can track multiple kinds of fabric to deformation, such as stretch, pressure, and torque, all at the same time. It's very difficult for sensors to measure several stimulations simultaneously. The team incorporated concepts from reflectometry to create a soft fiber-shaped sensor that opens doors for smart textiles.

The technology works similarly to radar but sends out electrical pulses instead of electromagnetic waves. The fibers operate like transmission lines, known from high-frequency communication. The system measures the time between when a signal is sent out and when it's received. That difference can

determine the exact location, type, and intensity of deformation.

This particular kind of detection technology has never been used in structures combining extended mechanical flexibility and high electronic



performance before. Those features are crucial to measuring the deformations. Creating the fibers is complicated and involves an optical fiber fabrication process applied to unusual materials, such as elastomers or liquid metals that serve as conductors.

The team says the trick was to create transmission lines made entirely of soft materials using a simple



method with the ability to be scaled up. The next step will be to make the technology more portable by reducing the footprint of the peripheral electronics.

## New smart textile control music by pinching a cord

Google is developing a touch sensitive e-textile cord prototype to control music and other media. It has been made with a helical sensing matrix (HSM) that helps the user control music by simply using his fingers. The touch-sensitive cords can be instructed based on the discretion of the user, who may single tap, double tap, twist or apply pressure on the cord. This HSM comes in braided form of insulated e-fabric or yarns designed to transmit and receive messages that enable mutual capacitive sensing.

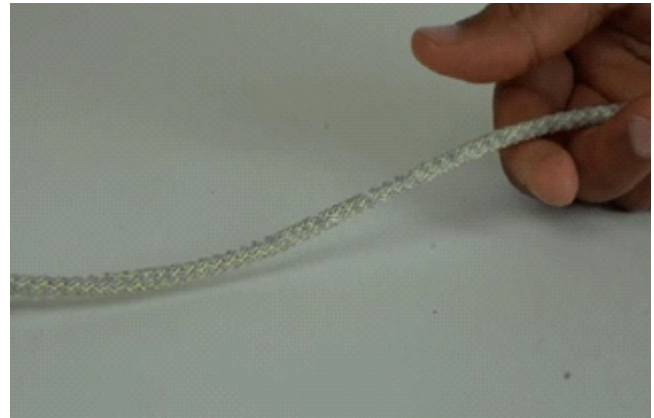
Google focused on e-fabric cords as they come in handy for various purposes like drawstrings in hoodies or pullovers. These are also used as wired connections for data and power across consumer devices. The capacitive coupling at their intersections is modulated by the user's fingers, and these interactions can be sensed anywhere on the cord since the braided pattern repeats along the length. The cord has fibre optics functioning and will give feedback in form of light or sound.

"We want to help the user discover functionality and get continuous feedback on their actions. Where possible, we provide visual, tactile, and audio feedback integrated in the device. Based on these principles, we leverage our e-textile architecture to enable interaction techniques based on our ability

[Source-<https://www.slashgear.com/new-electronic-fibers-can-be-embedded-in-textiles-as-sensors-04623629/>]

to sense proximity, area, contact time, roll and pressure," Google noted.

The pattern of a braid is repetitive that will help



users give instructions anywhere through the length of the braid. "By exploiting techniques from textile braiding, we integrate both gesture sensing and visual feedback along the surface through a repeating matrix topology," Google said. According to Google, the software is able to distinguish between the different gestures including tapping, squeezing and twisting the cord with up to 94 per cent accuracy.

[Source-<https://www.technicaltextile.net/news/google-developing-touch-sensitive-fabric-cords-267601.html>].

## MEDITECH - Innovative Surgical & N95 Facemask, Protective mask 3-layer composite medical face masks for healthcare industry

USA based Trinity Technology Group's (TTG) latest AIRADIGM™ innovation takes healthcare personnel protection to the next level. Leveraging years of expertise in filtration and membrane engineering with extensive performance fabric design knowledge, TTG created a new AIRADIGM 3-layer composite medical face mask media delivering incomparable value for the healthcare industry.

"We are proud that our proprietary AIRADIGM technology can help better protect people on the front lines of healthcare today," said Mr. Greg Vas

Nunes, TTG's CEO. "We applied our significant experience in membrane and fabric construction to create a composite material that provides several unique performance features not currently available." Three Layers of Protection for Performance, Comfort, Extended Product Life, and Sustainability. AIRADIGM composite face mask material is a proprietary design that features:

- Spun-lace polyester outside layer for durability
- ePTFE membrane core for enhanced filtration and breathability

- Spun-bond polypropylene inside for softness and moisture management
- The composite media is sonically laminated for integrity and increased mask lifespan

This unique, lightweight, bonded composite keeps fluids and particles out but allow body heat and vapor to escape for long term comfort. Also, the composite's membrane core is breathable and increases the wearer's protection. Studies have shown that PPE comfort is a must for user compliance and concentration, both of which are absolutely critical in medical settings.

The proprietary membrane provides filtration capabilities that do not degrade with humidity unlike traditional melt blown mask materials. Microbe and particle protection levels stay consistently high for all-day protection without



frequent mask replacement. Masks made with the special AIRADIGM media can be autoclaved and safely reused.

*[Source-<https://finance.yahoo.com/news/ttg-introduces-innovative-composite-fabric-150000220.html>]*

## Extia® Protect portfolio for face masks application

Ahlstrom-Munksjö has expanded its offering and capacities of protective medical products, including face mask materials, to meet the strong demand globally. After having successfully developed innovative solutions for face mask applications globally, Ahlstrom-Munksjö has launched its Extia® Protect product range, specifically designed for face mask applications.

The Extia® Protect portfolio consists of a full range of high-performance fiber-based solutions for face masks, including filtration layers, cover stocks, lace media and reinforcement layers. Each component of the range has been designed to meet specific requirements of the different type of masks, including respiratory masks, surgical masks, but also civil masks. The face mask offering is produced on a global industrial platform consisting of plants in Europe, North and South America and Asia, giving

the company the required capacity to meet the regional demand.

"I am very proud of the work accomplished by our team. In only a few months, we have developed a full offering for face mask applications and are now in a position to serve the growing demand for face mask materials globally by utilizing the available capacity we have in industrial platforms across the globe", says Mr. Daniele Borlatto, EVP Filtration and Performance Solutions. Extia® Protect portfolio allows Ahlstrom-Munksjö to offer customers a full range of technologies and has the ability to produce all layers for civil, surgical and respiratory masks.

*[Source - <https://www.ahlstrom-munksjo.com/de/medien/releases/press-releases2/2020/ahlstrom-munksjo-launches-extia-protect-portfolio-for-face-masks/>]*

## Innovative N95 mask is gentler on skin and easier to use

USA based in Avery Dennison partners with Global Safety First LLC, (GSF), to produce and distribute a self-adhesive, NIOSH-Certified N95 mask as part of the company's efforts to provide innovative personal protective equipment (PPE) in response to the COVID-19 pandemic.

The N95 mask is a standard of safety in the healthcare setting and vitally important to protecting healthcare workers and patients. GSF's ReditMask Self-Adhesive NIOSH-Certified N95 face masks are made with electrostatic particle filtration properties that make them more breathable. They adhere gently to the face with double-coated skin-

USA based in Avery Dennison partners with Global Safety First LLC, (GSF), to produce and distribute a self-adhesive, NIOSH-Certified N95 mask as part of the company's efforts to provide innovative personal protective equipment (PPE) in response to the COVID-19 pandemic.

The N95 mask is a standard of safety in the healthcare setting and vitally important to protecting healthcare workers and patients. GSF's ReadMask Self-Adhesive NIOSH-Certified N95 face masks are made with electrostatic particle filtration properties that make them more breathable. They adhere gently to the face with double-coated skin-friendly adhesive, and are available for use in healthcare settings as a COVID-19 countermeasure.

The ReadMask is unique because it can form an airtight seal providing maximum protection while allowing filtration during inhalation and exhalation. The mask is virtually weightless, convenient and easy to use. The design eliminates tight straps or ties that put pressure on the face or get caught in hair.



Additionally, ReadMask has no uncomfortable metal nose clip that can cause skin bruising. The ReadMask was designed with a very low breathing resistance and may provide a cooler temperature than other similar masks.

"Our partnership with Global Safety First allows us to bring some much needed safety and comfort to frontline healthcare workers who rely on N95 masks every day for protection. GSF's unique design, along with our medical manufacturing capabilities and expertise in skin contact adhesives, is helping to bring mask innovation to the healthcare market at a time when it is sorely needed," says Ms. Kirsten

## Innovative and Hi-Tech range of protective masks called Warp-Mask

Lombardy, Italy based Warp Knit Seamless (WKS) specialist, Cifra, backed by its long-term know-how, has engineered and produced an innovative and hi-tech range of protective masks called Warp-Mask.

Engineered by Cifra WKS system, Warp-Mask is a high-tech double-layer, run-proof and water repellent mask, which thanks to its Perfect Skin technology, perfectly adheres to the nose and to the mouth. Each mask is in fact made with polyamide (80%) and Lycra (20%) multifilament yarn, where the high percentage of Lycra and Perfect Skin technology guarantee perfect face adherence, to ensure the covering of both nose and mouth.

The fabric is doubled for a more compact and ultra-run-resistant structure and uses HeiQ Eco-Dry technology, which offers fluorocarbon-free durable water repellence (DWR). This high-performance sustainable water-repellent treatment offers exceptional efficiency and durability to washing and dry cleaning. The applied HeiQ Eco-Dry treatment makes the masks 40° machine washable and thus



reusable.

"The design of a hi-tech mask that is guaranteed to be Oeko Tex standard 100 certified, warp-knitted, double-layered, water-repellent, knitted in one without seams for optimal comfort, sterilised, washable up to ten washes, and all designed and made in Italy," Cifra CEO Mr. Cesare Citterio said.

**[Source-<https://www.textileworld.com/textile-world/knitting-apparel/2020/04/cifra-spa-launches-warp-mask-against-covid-19/>]**



## SPORTECH

### "Ionic+" - Antimicrobial Technology for apparel and bedding surfaces

Noble Biomaterials, USA, a leader in antimicrobial and conductivity solutions for soft-surface applications, announced the launch of a new brand identity - "Ionic+" - for its antimicrobial technology formerly known as XT2.

The new brand name, logo and tagline will more clearly convey the benefits and story of Ionic+, a technology that uses positively charged silver ions to provide microbial and odour protection for the life of a product. More than 30 leading apparel, performance and athletic brands, including Athleta, Mack Weldon, Fox Racing, Rhone, Hill City, Troy Lee Designs, Giro, Rhoback and BN3TH use Ionic+ to impart a performance edge to their products.

"We designed the new Ionic+ brand identity to clearly express the benefits and impact of this technology, which harnesses the power of positively charged silver ions to fight microbes on soft surfaces like athletic apparel, bedding and towels," said Mr. Joel Furey, Founder and Chief Commercial Officer of

Noble Biomaterials. "With the increased need for fabric that is essentially self-cleaning of microbes, Ionic+ is being more widely adopted in healthcare and PPE, with companies like Chargeurs and Myant incorporating it in masks and Octo Safety Devices using it for respirators. The growth of the business drove the need for a name that more closely aligns with the technology's mechanism of action."

Ionic+ uses the power of positively charged silver ions to fight the growth of microbes and odor- and stain-causing bacteria on soft surfaces. Apparel and bedding that doesn't allow for bacteria to grow and multiply doesn't need to be laundered as often, which saves consumers time and money and can help extend the useful life of products while also helping save the environment.

[Source-<https://www.innovationintextiles.com/smart-textiles-nanotechnology/noble-biomaterials-rebrands-xt2-as-ionic/>]

## TECHNOLOGY

### Nonwoven melt spinning technology suitable for medical face mask applications

Fibre Extrusion Technology (FET) Limited of Leeds, UK has received unprecedented enquiries for its Non-Woven Melt Spinning System since the onset of the Coronavirus crisis. Massive worldwide demand for medical grade masks has stretched manufacturing capacity which relies heavily on the specialist melt-blown process for non-wovens.

FET's Melt Spinning system is a tried and tested pilot and laboratory scale format for non-woven production. Trials are currently being concluded and samples produced of polypropylene melt blown non-woven materials suitable for applications in FFP2 and FFP3 medical masks.

Although the FET system is primarily designed for R & D and pilot scale applications, trials are proving it to be suitable for low volume production of the face mask central filter materials. This system is ideal for continued development of non-woven materials for this application and offers a bespoke solution for

small scale production. Indeed, some existing FET customers have already switched their FET Melt



Blown Spinning Systems to producing non-woven materials for such applications.

Manufacturing giants and niche suppliers alike across the globe are adapting their efforts to provide materials and products to combat the pandemic.

FET has received numerous enquiries for its Non-Woven Melt Spinning System and is currently engaged with companies based in Germany, Italy, UK and elsewhere, running trials, preparing samples and defining specifications.

FET's in-house Process Development Laboratory is an ideal and flexible R&D facility and is currently

running at full capacity to meet unprecedented demand for specialist non-woven materials as a result of the crisis.

*[Source-<https://www.innovationintextiles.com/nonwovens/lab-scale-melt-spinning-system-for-medical-face-mask-applications/>]*



### ITTA SIGNED MOU WITH THE TEXTILE INSTITUTE (TI)

Textile Institute (TI) is a unique organisation in textiles; clothing and footwear incorporated in England by a Royal Charter granted in 1925 and is a registered charity. The Institute has Individual and Corporate Members in up to 70 countries. The membership covers all sectors and all disciplines in textiles, clothing and footwear with current focus on Technical Textiles. Benefits of the MOU are:-

1. ITTA Members can become member of TI at a discounted rate of 30%
2. To jointly organise International workshop, seminar or symposium for technical textile companies.
3. To support major events of Technical Textiles Industries organized by ITTA and TI 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"/>
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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

**MECHANICAL DATA:** Full page size: 210 mm x 297 mm, Preferable artwork size: 190mm x 277 mm , Bleed margin = 3 mm on each side (Final Design with bleed area: 216 mm x 303)

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

## Mode of Payment:

- 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

## Mode of sending advt. material:

Name of the Company:.....

Mailing Address:.....

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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](mailto:officeed@ittaindia.org)



## New Members

### WELCOME TO NEW MEMBERS

#### SGP KNIT FAB, SURAT

(Mob: 9924140450; Email Id: sandeep7agarwal@hotmail.com)

SGP Knit Fab was formed in the year 2015 to manufacture Knitted fabrics with a capex of 10 cr. They are having 2 sets of state of the art high-speed Karl Mayer Hks-3 warp knitting mc's to produce the finest knitted fabrics- 2 lakh meters/month for apparel use to cater to the growing demand of knitted fabrics in India. Later in 2017, they added the business division to make Signage/Media fabrics is 8000 sq.m per month under the name Universal Flag and Media which was merged into SGP Knit's knitted fabric division in the FY 2019-2020 to give synergy of operations. Major portion of Signage fabrics are mainly outsourced and then sent to processing units for processing and coating before finally being prepared for dispatch.

#### YES DYEING & PRINTING PVT. LTD., SURAT

(Mob: 9825500001; Email Id: manan.gondalia@yesfashions.com)

Yes Dyeing and Printing (A Company of Yes Fashions group) is in the field of Textile manufacturing since 1975 having world class global scale manufacturing and marketing facilities. They have machineries such as Jet Dyeing m/c, finishing m/c and Printing m/c. Having production capacity of 100% recycled polyester fabrics - 3 million mtr/ month (FY 2018-19) with a value sale of 30.36 cr. Currently, they have started manufacturing the PPE fabrics.

#### REALFAB PACKAGING PVT. LTD., DELHI

(Mob: 9811038016; Email Id: Sharad@Realfab.in)

Realfab Packaging Pvt. Ltd. Is the manufacturer of the Packtech products having the state of the art manufacturing facility of spun bond type nonwoven fabric at Himachal Pradesh. They have gained a reputation of showcasing quality eco-friendly nonwoven fabric at cost effective prices. We have acquainted with the best technology to assure an exclusive range of products i.e. CL make spun bond 1.6m width of single beam fabric line. They offer a wide range of products of Spun bonded Nonwoven Fabric from 10 GSM to 180 GSM with a production capacity of 593 MT/year (FY 2018-19) with a sales value of 68 cr.

#### SHREE RAM COTSPIN PVT. LTD., KOLKATA

(Mob: 8820415004; Email Id: info@eskaygroups.com)

Shree Ram Cotspin, sister company of Eskay Group, since the past 5 decades is involved in the manufacturing of products from natural fibres mainly Jute & Cotton ranging from a no. of applications such as mulch mat, jute soil saver, packaging, absorbent cotton and other healthcare products. They have production capacity (FY 2018-19) of Jute felt- 1200 MT/year, Jute Fabric - 2400 MT/year, Jute soil saver- 1200 MT/year and Absorbent cotton- 600 MT/year. Their machine range includes needle punching, fiber opening, rapier looms, piping and taping machine and quilting machine.

#### RGI MEDITECH PVT. LTD., KOLKATA

(Mob: 9917472445; Email Id: sahil@rgimeditech.com)

RGI Meditech is part of Romsons Group of companies in the field of Disposable Medical Devices in India to cater to

customers' needs. It is one of the Indian FMCG, under the brand name Dignity, products offered are Adult Diapers, Underpads, Body & Baby Wipes. Recently added Wet Wipes (Body & Baby) manufacturing capability with a state of the art machine which can produce Z and V folded products with production capacity of Diapers & Under pad (Nonwoven Textiles) - 12 Cr Pcs/year and Wet wipes - 70 lakh pkts/year (FY 2018-19). They have Adult Diaper m/c, Underpad m/c and Automatic Wet Wipes manufacturing m/c.

## **SLIVER CREST CLOTHING PVT. LTD., BANGALORE**

(Mob: 9917472445; Email Id: sahil@rgimeditech.com)

Silver Crest was established in mid-1990. They are manufacturing highest quality formal suit, it has recently diversified into technical garments which are "essential" in nature. Silver Crest has 5 factories in Bangalore and Kolar. They have machineries such as automated sewing m/c, automated pressing m/c, automated cutter m/c and heat seam sealing m/c. Their product range and production capacity in FY 2018-19 include Ready garments - 3.72 million/year, PPE coveralls - 1 million/year, Isolation gowns - 5 million/year. Surgical gowns - 5 million/year and Aprons - 20 million/year.

## **MASTURLAL CORDS & ROPES PVT. LTD., BANGALORE**

(Mob: 9686661279; Email Id: umesh.s@masturlal.com)

Masturlal Cords & Ropes is the Indian Manufactures of Paper carrier ropes, distributors of ML Gatewood nozzles and distributor of doctor blades for paper manufactures/ industry. They offer two broad ranges of paper carrier ropes i.e. conventional ropes & high tech ropes. They have machinery i.e. Rieter Ring Twister, 4 & 7 Herzog Braiding machine, Yarn heat setting machine, Rope Heat setting machine and Rope winder. They have been servicing the paper industry for 4 generations, with exceptional growth of 12-14% per annul over the last 3-4 years. Their product range includes conventional and high tech ropes with a production capacity (in FY 2018-19) of 450 MT/year with sale of 2.5 Cr.

## **DOUBLE FISH ENTERPRISE CO., LTD., TAIWAN**

(Mob: +886 963 756 978; Email Id: chiata@doublefish.com.tw)

Double Fish Enterprise Co., Ltd., formed in the year 1991, is an international company having expertise in field of solvent free & eco-friendly Adhesion Technology. Their company is serving the requirements of various prestigious brands like Adidas, Nike, Fengthai, etc. They have machines like 2 T-Die Extruder, 1 Blow Extruder, European thickness quality measurement machine & others. Their product range and the production capacity in the years 2018-19 was- Hot Melt Adhesive Films (PU based/Polyolefin Based/Polyamide based), Heat Transfer Films, PU Liquid Hot Melt Adhesive, Nonwoven And Functional Woven Seam Tape, TPU Breathable films, PUR Hot Melt Adhesives, Toe And Puff and Breathable And Non-Breathable Coating For Textile - 2350 MT/year with a sale of 50 lakh USD.