EXAMINATION OF PHYSICAL AND MECHANICAL PROPERTIES OF CAR FLOOR MATS IN AUTOMOTIVE INDUSTRY

Miodrag Đorđević, Sandra Stojanović, Igor Rajković, Sandra Stojanović .................................................................270

ИЗСЛЕДВАНЕ НА ФИЗИЧЕСКИ И МЕХАНИЧЕСКИ СВОЙСТВА ЗА АВТОМОБИЛНИ ПОДОВИ НАСТИЛКИ В АВТОМОБИЛНАТА ИНДУСТРИЯ..270

EFI BRINGS SMART INNOVATION TO PRODUCTION PRINT WITH NEW EFI FIERY PLATFORM ...........276

EFI ВНАСЯ ИНТЕЛИГЕНТНИ ИНОВАЦИИ В ПРОИЗВОДСТВЕНИЯ ПЕЧАТ С НОВАТА ПЛАТФОРМА EFI FIERY ...................................276

UZTEXTILE EXPO’2022 ........................................279

MICAM 92 .........................................................281

ANDTEX.............................................................284

CRYPTON TO INTRODUCE CRYPTON® CELLIANT®: THE FIRST WOVEN UPHOLSTERY FABRIC WITH CELLIANT INFRARED TECHNOLOGY FOR COMMERCIAL AND RESIDENTIAL DESIGN

CRYPTON ЗА ВЪВЕЖДАНЕТО НА CRYPTON® CELLIANT®: ПЪРВАТА ТЪКАНА ТАПИЦЕРИЯ С ИНФРАЧЕРВЕНА ТЕХНОЛОГИЯ ЗА ТЪРГОВСКИ И ЖИЛИЩЕН ДИЗАЙН.............286

RESEARCH FOR COSMIC MISSIONS: SMARTTEX PROVIDES DATA ON VITAL FUNCTIONS

ИЗСЛЕДВАНИЯ ЗА КОСМИЧЕСКИ МИСИИ: SMARTTEX ПРЕДОСТАВЯ ДАННИ ЗА ЖИЗНЕНИ ФУНКЦИИ.................................................................288

IDEA .................................................................290

SHANGHAITEX 2021 – TEXTECH INNO WEEK ...291

РЕКЛАМИ/ADVERTISING........275, 277, 178, 280, 283, 285
EXAMINATION OF PHYSICAL AND MECHANICAL PROPERTIES OF CAR FLOOR MATS IN AUTOMOTIVE INDUSTRY

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ABSTRACT:

Car floor mats are a crucial part of automotive equipment. Not only does their aesthetic appeal affect the selling value of the car, but they also have a significant role in improving the safety of the drive by preventing the non-woven textile basic part from getting wet which can cause a lot of problems. Leading car manufacturers have special car floor mats with fasteners for each and every type of vehicle, which are required to be long-lasting as well as to live up to the safety standards. In this paper the examination of the mechanical characteristics of car floor mats has been carried out by using several different methods:

testing the rigidity – flexibility of car floor mats, tests for determining the force around the opening of the floor mat – to determine the strength of the fixation system and its elongation, tests for determining the force necessary to pull out the fibre from the floor mat, tests for determining the wear and tear of the car floor mat by simulating the friction of the driver’s heel on the floor mat as well as testing the delamination of the car floor mat. The results of the examination indicate a high quality and entirely meet the standards of car manufacturers.

Key words: non-woven textile, car floor mat, wear and tear, fixation system

1. Introduction

Technical non-woven textile materials can form many different products with versatile uses. This type of textile, which is used for making car floor mats, aims to meet technical requirements by having high performances as well as to find solutions for many technical challenges in our environment, such as those concerning ecology, personal safety, health and comfort [1-3]. It has a very broad range of innovative potentials: diversity, functionality, interactivity, compatibility, flexibility and productivity [4].

Car floor mats are mats placed on car floors and have multiple functions: they protect the basic material from getting dirty and wet, to enhance comfort, provide thermal insulation and they have an aesthetic role as well as providing safety during drive [4-7]. The technological process of manufacturing car floor mats can be divided into six phases of production: cutting, printing the logo based on the car model, hemming, fixation, cleaning, final control and packaging. Different types of fibres and fibre blends are used for manufacturing floor mats in automotive industry. The type of fiber used has an impact on the quality of the floor mats [3, 8, 9].

The aim of this paper is to determine the new quality of floor mats by examining the physical and mechanical properties of the nonwoven material used for floor mats manufacturing.

2. Material and methods

In this paper examination of the mechanical characteristics of car floor mats has been conducted by using several different methods: testing the rigidity – flexibility of car floor mats, tests for determining the force around the opening of the floor mat – to determine the strength of the fixation system and its elongation, tests for determining the force necessary to pull out the fibre from the floor mat, tests for determining the wear and tear of the car floor mat by simulating the friction of the driver’s heel on the floor mat as well as testing the delamination of the car floor mat (separation of the primary and secondary surface).

2.1 Preparation of samples

Depending on the type of car floor mat as well as the car
model, different types of non-woven textile materials are used to make car floor mats (Figure 1). Each of these materials has its own technical characteristics (Table 1) such as: technical name of the material, raw material composition and surface mass 1 m².

Table 1. Technical characteristics of non-woven textiles used for the making of car floor mats

<table>
<thead>
<tr>
<th>Technical name</th>
<th>Raw material composition</th>
<th>Surface mass (g/m²)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Helsinki</td>
<td>Polypropylene (PP)</td>
<td>1470</td>
</tr>
<tr>
<td>XalaConcor</td>
<td>Polyamide (PA)</td>
<td>2600</td>
</tr>
<tr>
<td>Acropolis</td>
<td>Polyamide 6 (PA6)</td>
<td>1300</td>
</tr>
</tbody>
</table>

Different types of non-woven textile materials used for car floor mats production are presented in Figure 1.

After cutting, the next phase in the production of car floor mats is printing the logo for a certain type of car. Figure 4a shows the section of the car floor mat, while Figure 4b shows the separation of the primary and secondary layer during the delamination test.

3. Results and discussion

3.1 Rigidity test

This method is used for testing the flexibility of car floor mats [10]. It’s carried out on a tensiometer type Tensile strength Tester XHL – 02, shown in Figure 5.
Two samples sized 80 x 70 mm are used for testing. The velocity of the compression weight is 50 mm/min. The distance from the dent in the sample to the surface with the applied force of 30 N is measured. Figure 6 shows a graph with the results of the test, with the maximum force of 32,6 N, the height of the dent 6,15 mm, and the distance from the dent to the surface being 26 mm.

The graph shown in Figure 8 indicates that the maximum force around the opening on the car floor mat is 317,6 N with the elongation of 17,51 mm, i.e. 14,47 % during horizontal testing. Vertical testing shown in Figure 9 indicates that the maximum force applied is 144,4 N with the elongation of 29,92 mm, i.e. 11,97 %.

Figure 6. Diagram of the car floor mat flexibility test

Sample for testing the strength of the fixation system is presented in Figure 7.

Figure 7. Sample for testing the strength of the fixation system

3.2 Test for determining the strength of the fixation system of the car floor mat

Two samples sized 200 x 150 mm are used for conducting this test (for both horizontal and vertical testing) and a round opening is made with the fixation system. The velocity of the stretching of the sample is 200 mm/min. This test measures the elongation of the sample with the applied force of 100 and 300 N respectively, depending on whether it’s vertical or horizontal testing that’s been carried out. Figure 7 shows a sample for testing the strength of the fixation system of the car floor mat.

Results of the examination of the force necessary to pull out the fibre from the car floor mat is presented in Figure 11.

Figure 8. Diagram of horizontal testing

Figure 9. Diagram of vertical testing

Figure 10. Grabbing the bundles of fibre with pliers

This test simulates the friction of the driver’s heel on the car floor mat (both dry and wet), and after a certain num-

Figure 11. Graph showing the results of the examination
ber of cycles, the wear and tear of the car floor mat occurs. A sample sized 210 x 297 mm is used for testing. A weight of the mass of 6 kg simulating the pressure of the driver’s heel is applied. The rate of the wear and tear is 11 cycles per minute.

The display shows the number of cycles after the test has been completed, Table 2.

**Table 2. The number of cycles after the test has been completed**

<table>
<thead>
<tr>
<th>Material</th>
<th>Dry</th>
<th>Wet</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACPROLIS 82</td>
<td>15012 cycles</td>
<td>2332 cycles</td>
</tr>
<tr>
<td>ACU VELOURS BLACK 405479</td>
<td>8210 cycles</td>
<td>1102 cycles</td>
</tr>
</tbody>
</table>

Figure 12 shows the end of the test (a hole in the sample is made).

The results of the examination are given in the form of a histogram, Figure 13.

**Figure 13. Graphic representation of the number of cycles during the wear and tear of the car floor mat**

3.5 **Testing the delamination of the car floor mat**

This is the method for determining the force necessary for delamination of the car floor mat, which aims to separate the primary from the secondary layer. A sample sized 150x25 mm is used for this test. On the one end of the sample a mechanical separation of the primary from the secondary layer is carried out, a few centimetres in size (Figure 4b), after which the separated part of the primary layer is fastened to one clamp, and the separated part of the secondary layer to the other clamp. The velocity of movement is 500mm/min. The results of the delamination tests for sample type ACU VELOURS BLACK 405479 are given in Table 3, while Figure 14 shows the diagram of testing with characteristic peaks. The mean force of delamination is 24.07 N.

The results of the tests for sample type ACROPOLIS 82 are given in Table 4. The mean force of delamination for given sample type is 11.58 N.

**Table 3. The results of delamination for sample type ACU VELOURS BLACK 405479**

<table>
<thead>
<tr>
<th>Force of delamination</th>
<th>[N]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fp2</td>
<td>27.00</td>
</tr>
<tr>
<td>Fd2</td>
<td>19.40</td>
</tr>
<tr>
<td>Fp4</td>
<td>28.60</td>
</tr>
<tr>
<td>Fd2</td>
<td>21.00</td>
</tr>
<tr>
<td>Fp6</td>
<td>28.00</td>
</tr>
<tr>
<td>Fd6</td>
<td>20.40</td>
</tr>
<tr>
<td>Fp1</td>
<td>27.80</td>
</tr>
<tr>
<td>Fd1</td>
<td>19.00</td>
</tr>
<tr>
<td>Fp3</td>
<td>29.00</td>
</tr>
<tr>
<td>Fd3</td>
<td>21.00</td>
</tr>
<tr>
<td>Fp5</td>
<td>28.40</td>
</tr>
<tr>
<td>Fd5</td>
<td>19.20</td>
</tr>
<tr>
<td>Tear force</td>
<td>24.07</td>
</tr>
</tbody>
</table>

Figure 14 shows the diagram of characteristic peaks for sample type ACU VELOURS BLACK 405479.

**Figure 14. Graph of delamination for sample type ACU VELOURS BLACK 405479**

In Table 4 results of delamination for sample type ACROPOLIS 82 is presented.
Table 4. The results of delamination for sample type ACROPOLIS 82

<table>
<thead>
<tr>
<th>Force of delamination</th>
<th>[N]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fp2</td>
<td>13.60</td>
</tr>
<tr>
<td>Fd2</td>
<td>10.60</td>
</tr>
<tr>
<td>Fp4</td>
<td>14.40</td>
</tr>
<tr>
<td>Fd4</td>
<td>11.40</td>
</tr>
<tr>
<td>Fp6</td>
<td>10.40</td>
</tr>
<tr>
<td>Fd6</td>
<td>10.00</td>
</tr>
<tr>
<td>Fp1</td>
<td>14.80</td>
</tr>
<tr>
<td>Fd1</td>
<td>10.00</td>
</tr>
<tr>
<td>Fp3</td>
<td>10.80</td>
</tr>
<tr>
<td>Fd3</td>
<td>9.20</td>
</tr>
<tr>
<td>Fp5</td>
<td>14.80</td>
</tr>
<tr>
<td>Fd5</td>
<td>10.00</td>
</tr>
<tr>
<td>Tear force</td>
<td>11.58</td>
</tr>
</tbody>
</table>

Figure 15 shows the diagram of characteristic peaks for sample type ACROPOLIS 82.

4. CONCLUSION

While examining car floor mats during their exploitation, the test for determining the force needed to pull out bundles of fibre from the car floor mat has a very important role. The results indicate that maximum force needed to pull out bundles of fibre is 1.2 N, which satisfies the standards of durability of the product. The results of the wear and tear examinations, i.e. the durability of the car floor mats for the material type ACROPOLIS 82 are 15012 cycles during dry friction, and 2332 cycles when the car floor mat is wet, which meets the standards when the wear and tear aspect of the car floor mats is concerned. The examination of flexibility of car floor mats implies determining the necessary distance from the dent in the car floor mat as well as the force needed to make the said deformation, i.e. the dent. The examination showed that the maximum force needed is 32.6 N, while the distance from the dent equals 26 mm. The results of the examination of force around the opening on the car floor mat, that is the strength of the fixation system and its elongation during horizontal testing are 317, 6 N at the elongation of 17,51 mm, i.e. 14.47%. During vertical testing, maximum force equals 144,4 N, the elongation is 29,92 mm, i.e. 11.97%. The mean value of delamination for the sample type ACU VELOURS BLACK is 24.07 N, while the said value for the sample type ACROPOLIS 82 is much lower at 11.58 N. Based on the examinations conducted on the materials used in the production of car floor mats, it can be concluded that car floor mats are high-quality products which meet the requirements of both car manufacturers and consumers to the fullest.

REFERENCES:


INTERNATIONAL FAIR
OF TEXTILE, APPAREL, LEATHER & EQUIPMENT

01-02-03
MAR. 2022
CIC OF ALGIERS
ALGERIA

Spinning & Fabrics | Leather & Semi-Leather
Apparel | Shoe & Bag | Machines & Equipment
Home Textile | Accessories | Design & Print
EFI Fiery FS500 Pro delivers advanced automation, color, and job processing technology to meet challenges in evolving print markets.

Electronics For Imaging, Inc., today announced its newest, most advanced step forward for the world’s leading digital front end (DFE) server solution for digital printing – the new EFI™ Fiery® FS500 Pro platform. Fiery FS500 Pro will help print providers meet the challenges of shorter runs, faster turnaround times, less experienced staff, increased security standards and the need to reduce cost. The new Fiery DFE platform brings innovation to an extensive line-up of new, state-of-the-art digital printers coming for office, commercial, in-plant, packaging, and textile printing.

The Fiery FS500 Pro platform features five key areas of innovation:

- **Faster job processing.** Print providers will benefit from faster job processing time and up to 40% faster application launch time to produce more jobs per shift. For example, with the new Fiery FS500 Pro hardware and software platform, a graphics-intensive, 100-page photobook processes 36% faster compared with previous Fiery platforms.

- **Faster turnaround time for short runs.** Advanced Fiery features speed up administration and production of print jobs in fast moving print shops. A new print time estimation feature helps print operations better plan and schedule production resources for a more profitable operation.

- **More sellable print, less waste.** Fiery FS500 Pro has more tools available for detecting potential errors in

---

**Fiery JobExpert software included with EFI Fiery digital front end solutions saves job setup time by automatically choosing the right color and imaging settings.**

“As the industry begins a recovery from the recent downturn, print businesses across all segments are looking to invest in solutions that enhance their productivity, reduce waste and shorten cycle times,” said John Henze, vice president of sales and marketing, EFI Fiery. “That’s exactly what this brand-new Fiery platform brings, with advancements that take print businesses to new levels of production efficiency, color accuracy, and profit potential. We are excited to begin seeing our OEM partners roll out this new platform with the next generation of their digital printers and presses.”
files, reducing both production time and waste. External FS500 Pro servers now come standard with Fiery Preflight, which provides basic preflight checks for problems such as missing spot colors or low-resolution images. For more advanced preflight checks, Fiery Preflight Pro verifies file compliance with industry standards and specifications, such as PDF/X, PDF/VT, PDF 2.0, or GWG (Ghent Workgroup). The visual Preflight Pro Report makes it easy to find file errors, speeding time to print. Customers can produce higher-quality jobs and personalized prints with a native Adobe PDF Print Engine 5.5 workflow, the default interpreter on external Fiery servers and an option on embedded servers.

- **More-accurate brand colors.** A new Fiery TrueBrand solution for corporate users makes it easy to ensure accurate printing of brand colors from Microsoft Word or PowerPoint. In production environments, the new version of Fiery Spot Pro makes it faster for print providers to get a media ready to print by optimizing all spot colors at once for the most accurate reproduction of brand colors.
- **Advanced security.** Fiery FS500 Pro provides new features for high security environments, ensuring compliance with customer security requirements and industry standards. In addition to the latest security updates, Fiery FS500 Pro servers include a security audit log that can integrate into customer Security Information and Event Management (SIEM) solutions, which help to detect and proactively address security-related issues.

FS500 Pro enables quick and easy onboarding to the EFI IQ™ suite of cloud applications that connect people, processes and print devices to enable better, data-driven decisions for print businesses.

EFI will launch Fiery FS500 Pro-based DFEs with new office and production printers and presses from many of the world’s leading manufacturers. Fiery FS500 is also the basis for next-generation blade-server DFE systems developed for new ultra-high-speed, single-pass inkjet production solutions coming to market.

**Source:** www.efi.com
27-29 APRIL 2022
Tashkent, Uzbekistan

4th International Exhibition of
TEXTILE AND FASHION INDUSTRY

www.textileexpo.uz
UzTextile Expo’2022

The Organizing Committee of the International Exhibition of Textile and Fashion industry of Uzbekistan decided to hold UzTextile Expo Spring from 27 to 29 April 2022 and in Autumn, September 8-10, 2022 to demonstrate spring-summer and autumn-winter collections of textile products, accessories, and clothing.

The Exhibition is the most important business platform to demonstrate the achievements of the domestic textile, garment, and knitwear industry, advanced developments, and technologies, current trends in the production of clothing and textile products. The international event will once again acquaint with the achievements and innovations of Central Asian and world leaders along the entire technological chain – from yarn to ready-to-wear and accessories.

A wide range of products from Uzbek cotton will be presented. More than 100 domestic manufacturers are expected to take part in the exhibition, ranging from flagships and cotton & textile agro-clusters to a special area for small businesses to fully meet the needs of the most demanding customers and buyers. Companies from Russia, Belarus, Turkey, China, and other countries will also be represented.

Leading European and Asian manufacturers, retail chains, wholesalers, and retailers are already planning to visit UzTextileExpo Spring’22, ready to place sourcing orders in Uzbekistan. There is a Special Buyer’s program carried out in order to create conditions for them to work as efficiently and comfortably as possible at the exhibition. Throughout the years of the program implementation, more than 300 large buyers from Germany, Turkey, China, Russia, Ukraine, the Republic of Belarus, Kazakhstan, and other countries have taken part in its work.

For many years this exhibition has been the main place for meeting manufacturers and getting acquainted with the latest industry innovations.

In 2022, a record number of exhibitors and visitors are expected to take part in the exhibition UzTextile Expo’2022 events, as well as many new products, fruitful negotiations, and new business partners.

Traditionally an extensive business program is planned alongside, including holding the next edition of Uzbekistan Textile Conference, fashion shows from domestic and foreign designers, B2B, B2C, B2G meetings, and other events for industry professionals.

COUNTRY AND INDUSTRY IN BRIEF

- 6th place in the world for cotton production
- 100% of raw materials are processed domestically
- More than 7000 enterprises, of which about 2000 exporters
- Employment of 360,000 people, an increase of about 15 thousand new jobs annually
- The share of the industry in GDP reaches more than 4%
- Export of products – about $ 3 bln. per year
- One of the few industries growing during the pandemic

Source and more info at: [www.textileexpo.uz](http://www.textileexpo.uz)
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MICAM IS READY TO BOOST THE RE-LAUNCHING OF THE FOOTWEAR INDUSTRY

News, content and suggestions for the most important footwear trade show

Everything is ready for the ninety-second edition of MI-CAM Milano, the leading international footwear show promoted by Assocalzaturifici, scheduled to be held as a physical event September 19 through 21, 2021 at Fiera Milano (Rho). In view of all the prestigious returning exhibitors and some important new entries, MICAM Milano is sure to be the most complete event offering dealers a preview of the spring/summer 2022 collections and the latest trends in footwear.

The trade fair will be back ‘live’, with a new formula concentrating the show in only three days and plenty of exciting new events. Covid protocols developed in collaboration with Fiera Milano will ensure that Italian and international dealers are able to attend in perfect safety, allowing them to see — and touch - all the new products for spring/summer 2022 from the world’s top footwear brands.

“I hope that this edition of Micam, which will be held in person and in perfect safety, will mark the re-launching of this industry so essential to Italy’s reputation and economy,” remarks Siro Badon, Chair of Assocalzaturifici and MICAM Milano.

The latest economic figures on the performance of the industry are reassuring, revealing strong resumption of growth in key indicators continuing in the second quarter of the year after the upturn already registered at the end of the first quarter. His upswing is primarily the result of comparison with months in the previous year, when restrictions imposed during the lockdown had a major impact on footwear manufacturers, distributors and consumers. The figures prepared by Confindustria Moda Research Centre for Assocalzaturifici reveal double-digit growth over the previous year in industrial production (+13%) and sales (+22%), as well as Italian household spending (+17.4%); exports also encourage optimism (+31.5% by value).

But there is still a gap compared to pre-Covid levels of performance. While international sales due to work performed on contract for major luxury multinationals has limited the gap compared to the year 2019 to around -5% in terms of value (but -11% in terms of quantity in the first five months of the year), domestic demand, industrial production and sales are still well below the already unsatisfactory levels of two years ago (with a gap of more than -15%): seven out of ten footwear companies report that sales are still much lower than before Covid.

On the domestic market, after beginning the year 2021 on a negative note, comforting signals began to appear in May and June, when household spending approached 2019 levels. Vaccination campaigns in Italy and abroad encouraged an upturn in national economies and a return to growth of production and world trade. But it will take time to reach pre-pandemic levels. There is also some ground remaining to be recovered in terms of employment, with 2000 less employees in the sector since the start of the year, 3000 if we include manufacture of components; I’m optimistic, though, because the re-launching and resumption of business in the country will also involve the footwear industry”.

THE EVENT: PLENTY OF NEWS

MICAM 92 will open with 652 exhibitors - 390 from Italy and 262 from overseas - including the return of big names in all market sectors, such as Liu Jo, Primigi, Igi& co and Valleverde. New entries will include such prestigious names as Furla and Luciano Padovan. Exhibitors will occupy five pavilions, containing the areas into which the fair is divided, as usual: pavilions 1 and 3 will host the Premium area, pavilions 2 and 4 the Contemporary area, and pavilion 6 will contain the Every Day area.

Assocalzaturifici and Italian Artisan present Italian Artisan HEROES, a new 200 sqm area focusing on the Italy’s artisanal tradition in pavilion 3, stand P01 Q12. “Italian Artisan Heroes - the ultimate manufacturing tradition, is a project focusing on Italian artisans: the people, their history, and their know-how,” says Olga Iarussi, CEO of Italian Artisan. “In the wake of the pandemic, we want to re-launch the essence of timeless Italian craftsmanship and know-how. We’re proud to get going again with the Italian Artisan stand at MICAM, a physical space representing our online B2B marketplace. It will be a place for international brands and retailers to experience the excellence of Italian craftsmanship”.

MICAM also acts as a talent scout in this edition, as in the past, with a focus on new generations creating visibility for new expressions of style. Thus the special initiatives planned for September include the fourth edition of EMERGING DESIGNERS, an event area dedicated to 12 international footwear designers selected for their innovative concepts to be showcased in a special area in pavilion 1.
Then there is the MICAM START-UP BOOT CAMP, an ongoing scouting programme aimed at identifying the best innovative start-ups in the footwear industry for incubation and acceleration, to be showcased in MICAM X seminars held with the special participation of founder Patrick De Zeeuw.

There will be plenty of room for imagination, creativity and the enchanted world of fairy-tales at MICAM TALES SQUARE, an area in pavilion 3 showcasing MICAM’s new advertising campaign, with its fun glam mood in which the star attempts in vain to put together the dress and shoes of her dreams for the great ball, concluding in a #glamorous disaster. Visitors will be able to have fun and share their “disastrous looks” via the social networks.

September also sees the return of MICAM X, the MICAM Milano innovation hub set up in pavilion 1. Through a packed calendar of seminars, workshops, MICAM X introduces footwear dealers to all the latest new trends in markets, styles, research into materials, the future of retail and sustainability, with a highly qualified panel of speakers. There will be plenty of presentations of the latest trends by WGSN, along with the launch of a new sustainability project created by Assocalzaturifici for certification of companies meeting the requirements for achievement of specific quality standards.

MICAM’s strategy has always been one of supporting international growth of footwear companies. This internationally recognised position is consolidated through adoption of tools and channels in line with the evolution of markets. Top priority is assigned to buyers, through important partnerships with key players in distribution in Italy and abroad (Federazione Moda Italia, Best Showroom-Assomoda, Histores, NIAM, National Shoes Retailers of America, and the Russian Buyer’s Union). A promotional and incoming visitors’ plan has also been developed in partnership with ITA Agency under a framework agreement with the Ministry of Foreign Affairs and International Cooperation to bring to Milan a delegation of Chinese and Russian influencers, as well as 120 international buyers and reporters; and the inauguration in September of a pilot project involving an influencer marketing campaign in support of Russia’s best Italian footwear stores.

Once again, moreover, the physical trade fair will be backed up using digital technologies: and so the MICAM Milano Digital Show platform will be offered in addition to the physical event, between September 15 and November 15 2021, allowing brands to schedule visits and meetings with buyers before, during and after the trade fair.

SAFETY FIRST!
Safety definitely comes first at MICAM 92. This is why everyone accessing the MICAM Milano trade fair (exhibitors, visitors, installers, suppliers) must be in possession of a valid GREEN PASS, or meet at least one of the following requirements:

• certificate of completion of the vaccination cycle with a vaccine authorised by the EMA in Italian or English (or a certificate of administration of the first dose at least 14 days earlier – valid only within ITALY and the EU, with a QR code).
• negative result of a molecular or rapid antigen test performed no more than 48 hours previously (in Italian or English);
• certificate of recovery from Covid-19 within the previous 6 months (in Italian or English). Fairs.

During the fair dates, there will be test hubs at the entrances to the trade fair district, where rapid antigen tests will be available for a fee.

MICAM Milano implements all the measures required by public health authorities for the prevention of contagion: everyone must wear a face mask at all times while indoors and comply with distancing requirements. Body temperature will be measured at the entrance to the trade fair, and flow control systems will be in place to check visitor flows through the pavilions throughout the fair dates.

MICAM: CONCURRENT EVENTS
Once more, this edition of MICAM will be held on the same dates as MIPEL and THE ONE MILANO SPECIAL FEATURED BY MICAM, which will take place in pavilion 1, in close contact with MICAM. HOMI FASHION & JEWELS EXHIBITION will be held September 18 through 20, 2021. Once again, holding these events concurrently represents a coordinated effort to relaunch all segments of the accessories industry simultaneously, an opportunity encapsulated in the hashtag #restarttogether launched and shared by all four trade fair.

Source: www.themicam.com
2ND EDITION

ANDTEX 2022
THAILAND

Southeast Asia Nonwovens and Hygiene Technology Exhibition & Conference

THE FUTURE OF NONWOVENS IS HERE!
Bangkok International Trade & Exhibition Centre

In Association with:
Thai Nonwoven Fabrics Industry Trade Association

Organized by:
E.J. Krause & Associates, Inc.

July 6 - 8, 2022

www.andtex.com

SUPPORTED BY:
ANDTEX, the premier networking and exchange platform for the nonwovens and hygiene industry in Southeast Asia announces July 6-8, 2022 as the new date for its next edition. E.J. Krause & Associates, organizer of ANDTEX will run the event still at BITEC in Bangkok, Thailand.

From this 1st November, Thailand has officially reopened. Travellers from every corner of the world are allowed to enter Thailand with or without quarantine based on their vaccination status and countries of departure. The reopening and relaxing of travel restrictions make it possible to forecast a return of business to a new normal by early 2022.

ANDTEX is regarded as the leading nonwovens exhibition and conference in Southeast Asia with a total attendance of 3.800 coming from 32 countries and nearly 200 exhibitors in the 2019 edition. The event unites the complete nonwoven industrial chain, from raw materials, machinery to finished products, technology and geotextile sectors. The conference program will give insights, latest trends and market opportunities for the whole Southeast Asia region.

Exhibitors are enthusiastic to show up again. "We expect a great demand for high quality embossing rollers and screens for nonwovens processes in the Southeast Asian market and have therefore decided to participate in Andtex. Despite the postponements, we are confident that we have a successful event in 2022 and hope for a lively participation as a basis for future business relationships. Furthermore, we hope that at the Andtex 2022 we meet up again with our Asian customers" confirmed Rüdiger Meyer & Achim von Wirth from the SAUERESSIG Group.

Andreas Rothbauer, Key Account Manager Optima Nonwovens GmbH is looking positively to the next edition: "For Optima it is still important to get the chance to meet and talk to our business partner and customer in person. Even with improved performance and better medial online features in the last years, the advantages of a face to face exhibition cannot be replaced. Looking and evaluating a general market impression and overview only can be done in real life exhibitions. It is worth to continue the participation at ANDTEX, even if have to wait for a while due to pandemic lockdowns."

Southeast Asia remains an attractive region for nonwoven growth driven by favorable demographics, economic conditions and a vibrant local and export market demand. Increasing market penetration for disposable and durable nonwovens in Southeast Asia shows a very potential outlook. Major needs are expected for converted nonwoven hygiene products followed by nonwovens used in durable geotextile and other sectors.


Source: www.ejkgermany.de

InterDye & Textile Printing Eurasia

5th International Dyestuff, Pigments, Textile Chemicals, Digital Textile Printing, Dye and Technologies Exhibition

24 - 26 November 2022
Istanbul Expo Center

www.interdyeprinting.com

This fair is organized under supervision of TOBB (The Union of Chambers and Commodity Exchanges of Turkey) in accordance with the law no. 5174
CRYPTON TO INTRODUCE CRYPTON® CELLIANT®: THE FIRST WOVEN UPHOLSTERY FABRIC WITH CELLIANT INFRARED TECHNOLOGY FOR COMMERCIAL AND RESIDENTIAL DESIGN » Easy Care Meets Self Care »

The Crypton Companies (Crypton LLC and Nanotex LLC), industry leaders in high-performance fabrics for contract and residential interiors, has partnered with Hologenix®, LLC, whose CELLIANT® infrared technology is an ingredient in world-class brands across many categories. The two have collaborated to create a new textile innovation, Crypton® CELLIANT®, the first woven upholstery fabric with CELLIANT.

CELLIANT, ethically sourced minerals embedded into fibers, reflects natural body heat back to us as infrared energy. It has been clinically tested and proven to increase cellular oxygenation for improved energy, stronger performance, faster recovery, better sleep and overall enhanced wellbeing. With the tagline “easy care meets self-care,” the new Crypton CELLIANT fabric additionally offers Crypton’s legendary performance characteristics. These include moistureresistance, stain-resistance, spill-repellence, odor-resistance and cleanability. Both Crypton’s contract fabrics and its Crypton Home lines will offer collections of this innovative blend of Crypton performance along with CELLIANT’s energy-enhancing properties, creating a new benchmark for performance fabrics in interior upholstery applications.

Crypton CELLIANT is exclusively woven at The Crypton Mills at Broad River, the firm’s own mill in Cliffside, North Carolina, and enhanced with performance technology in its research and manufacturing facility in Kings Mountain, North Carolina, to the highest environmental standards. Like all Crypton products, Crypton CELLIANT is GREENGUARD® Gold Certified. Crypton CELLIANT will be introduced to market through distributors in early 2022.

Ground into a powder finer than a micron, CELLIANT thermo-reactive minerals are embedded into yarns that are woven into skillfully crafted Crypton fabrics. CELLIANT is not a coating that can rub off. Crypton CELLIANT provides durability and the beautiful soft hand that has
made Crypton the leader in high-performance fabrics. Similarly, Crypton’s spill and stain resistant performance technology is permanently encapsulated in the fibers and can’t wash or wear off.

“As the category leader and innovator of performance technologies for contract and residential markets, we are proud to introduce Crypton CELLIANT and the enhanced performance properties it represents,” said Lance Keziah, CEO of the Crypton Companies. “This innovation also demonstrates our strong, ongoing commitment to American manufacturing. With the introduction of CELLIANT technology to our fabric offering, we have found a trusted performance partner in sync with our company values and sustainability mission.”

Said Seth Casden, Co-Founder and CEO of Hologenix, the materials science innovation leader, “We are excited to expand our brand partnerships into the first woven upholstery fabric on the market. Marrying high-performance textiles and our infrared technology that enhances human performance is a sure win for the end user. Working with the Crypton team has been a great experience.”

About the Crypton Companies
With a philosophy focused on thoughtfulness through performance and sustainability, Crypton is committed to fabric innovation and is widely considered the benchmark for indoor performance upholstery. An elegant blend of design and technology capabilities allows the Crypton Companies to offer an intelligent, integrated family of high-performance textiles for the contract, home and apparel design markets. Since its 1993 launch, the firm’s flagship product, Crypton Fabric, has revolutionized the use of woven fabrics in the healthcare, hospitality, government, education and contract design segments. Crypton Home® is a leader in the residential markets and is proudly offered by hundreds of national retailers. Inspired by its auspicious origins in nanotechnology, Crypton Nanotex® offers flexible solutions for textiles used in the apparel and contract markets. The most recent Crypton product innovations include home and contract performance fabrics for Europe that meet the continent’s strict Fire Rating codes; advanced IMO technology for marine applications; Crypton Epure, the world’s first solvent-free environmental polyurethane and Crypton Performance Cotton, the first performance fabrics made with 50-70% recycled cotton. Steadfast in its support of the American textile industry, Crypton is headquartered in Bloomfield Hills, Michigan and has two facilities in North Carolina with research and development in Kings Mountain and weaving at The Crypton Mills at Broad River in Cliffside. Crypton products are sustainably made and third-party GREENGUARD Gold certified. More information:

About Hologenix
Hologenix, headquartered in Pacific Palisades, California, is a materials science innovation company producing products that energize all aspects of life. Its flagship product, CELLIANT, is an infrared responsive textile that provides myriad wellness benefits and is an ingredient in world-class brands across multiple industries. It is rigorously tested by a Science Advisory Board composed of experts in the fields of photobiology, nanotechnology, sleep medicine, diabetes and wound care. The Science Advisory Board has overseen nine peer-reviewed published studies that demonstrate CELLIANT’s effectiveness and the benefits of infrared energy. CELLIANT is made from non-conflict, ethically sourced minerals. CELLIANT’s proprietary formula is manufactured in the USA.

Source: www.celliant.com and crypton.com
It looks like a normal shirt, but it has it all: The new SmartTex shirt uses integrated sensors to transfer physiological data from astronauts to Earth via a wireless communication network. In this way, the effects of the space environment on the human cardiovascular system will be evaluated and documented, especially with regard to long-term manned space missions. Developed by the German Aerospace Center (DLR) in cooperation with DSI Aerospace Technology, the Medical Faculty of Bielefeld University and textile research partner Hohenstein, SmartTex will be tested for the first time as part of the Wireless Compose-2 (WICO2) project by German ESA astronaut Dr. Matthias Maurer, who will leave for his ‘Cosmic Kiss’ mission on the International Space Station (ISS) for six months on October 30, 2021.

"We were already able to gain valuable insights into the interaction of the body, clothing and climate under microgravity conditions during the previous projects Spacetex (2014) and Spacetex2 (2018)," explains Hohenstein Senior Scientific Expert Dr. Jan Beringer. The insights provided at the time by the mission of ESA astronaut Dr. Alexander Maurer during preliminary talks on the Cosmic Kiss mission in DLR’s :envihab in Cologne. © DLR

Sensors measure physiological data during a test run on Earth. © DLR

Dr. Jan Beringer, Hohenstein Senior Scientific Expert. © Hohenstein

ESA astronaut Dr. Matthias Maurer in summer 2021 during preliminary talks on the Cosmic Kiss mission in DLR’s :envihab in Cologne. © DLR
Gerst have now been directly incorporated into the development of the new SmartTex shirt at Hohenstein. "Matthias Maurer can wear his tailor-made shirt comfortably on his body during his everyday work on the International Space Station. For this, we used his body measurements as the basis for our cut development and the production of the shirt. We integrated the necessary sensors as well as data processing and communication modules into the shirt’s cut in such a way that they interfere as little as possible and are always positioned in the right place, regardless of the wearing situation. This is the prerequisite for reliably measuring the relevant physiological data." The SmartTex shirt is intended to provide a continuous picture of the vital functions of astronauts. This will be particularly relevant for future long-term manned space missions to the Moon and Mars.

Wireless Compose-2 (WICO2)
The project was planned and prepared by the German Aerospace Center (DLR) and its cooperation partners DSI Aerospace Technology, Hohenstein and the University of Bielefeld. The wireless communication network reads sensor data and can determine the position of people and objects in space by propagation times of radio pulses. It is also available as a platform for several experiments on the ISS. The determined data is temporarily stored within the network and read out at regular intervals by the astronauts. These data packets are then transferred to Earth via the ISS link and analysed by the research teams. It can generate its own energy from artificial light sources via solar cells.

Source: www.hohenstein.com
INDA, the Association for the Nonwoven Fabrics Industry, highlights global and regional insights from industry thought leaders on the future of nonwoven and engineered materials supply, production capacity and demand at the triennial IDEA® conference program March 28-31, 2022, in Miami Beach, Florida.

The conference program will address the pandemic impacts on the global nonwoven supply chain and recovery for China, South America, Asia, North America, and Europe from a diverse group of presenters from Fitesa, INDA, EDANA, China Nonwovens and Industrial Textiles Association (CNITA), and Asia Nonwoven Fabrics Association (ANFA).

IDEA22 is the World’s Preeminent Event for Nonwovens & Engineered Fabrics and expected to attract 6,500+ senior-level delegates and 500+ exhibitors from myriad industry sectors, including absorbent hygiene, wipes, filtration, medical/surgical products including PPE (personal protective equipment), home & office furnishings, transportation, geosynthetics and building construction sectors from over 60 countries. The 2022 event marks the 21st anniversary of IDEA, with the show originating in 1971. Exhibition and registration details are available here.

Other Highlights
IDEA® Achievement Awards will honor brilliant innovations in the nonwovens and engineered materials industry across six categories on March 30, 2022. INDA in partnership with Nonwovens Industry magazine will jointly present the awards with emcee hosts Dave Rousse, President of INDA and Rod Zilenziger, President/Owner of Rodman Media Corporation.

The IDEA®22 Achievement Awards categories include:
-IDEA® Sustainability Advancement Award
-IDEA® Equipment Achievement Award – Best New Equipment Introduction
-IDEA® Roll Goods Achievement Award – Best new roll goods introduction
-IDEA® Raw Material Achievement Award – Best new fiber/raw material introduction
-IDEA® Short-Live Product Achievement Award – Best new disposable product using engineered fabrics
-IDEA® Long-Life Product Achievement Award – Best new durable product using engineered fabrics

Visit Achievement-Award.html for full details.

IDEA will also offer a series of short course training opportunities called “Nonwoven Essentials,” led by industry experts. Courses include: The basics of nonwovens, industrial wipes, consumer wipes, absorbent hygiene cores, and patent searching.

Each course provides a detailed overview designed to give newcomers basic skills or to enhance their knowledge about patents for new business strategies, for details visit:https://www.idea2022.org/training.html

As part of the registration fee, conference and short course participants also receive an exposition hall pass to connect with exhibitors showcasing their latest innovations and technologies on the IDEA show floor.

For full details about the conference, short courses, or to register, visit www.idea2022.org,
T: +1 919 459 3700,
info@inda.org

Image logo: IDEA®
Source: and official site IDEA 2022: https://www.idea2022.org/
ShanghaiTex 2021 – Textech Inno week
Postponement Announcement

According to the requirements from the Joint Prevention and Control Mechanism of the State Council dated 6 November 2021, the hosting of events, gatherings, and people’s mobility is to be limited so as to minimize the risk of the spreading of COVID-19. With the increasingly stringent control measures in place while striving to ensure the safety of participants, ShanghaiTex 2021 – Textech Inno Week, originally scheduled 23-25 November 2021, will be postponed to March 2022. Further details will be announced.

Riding on the needs of the market, ShanghaiTex 2021 – Textech Inno Week takes pride in upholding its ethos in the ongoing development of the industry technology while taking the initiatives to build up a global exchange platform conducive to the industry chain through discussion on smart manufacturing, sustainability, forefront technologies, new materials, and innovative designs through a series of product showcases and forums both online and offline. On 1 November 2021, the online sourcing platform www.ShanghaiTex.cn was launched with both local and international exhibitors’ new releases available to global buyers around the clock.

ShanghaiTex 2023 will be held from 22-25 November 2023 at Shanghai New International Expo Centre. The organizers of ShanghaiTex would like to express our greatest gratitude to all longtime exhibitors, new comers, visitors and media for their unwavering support.

Website (Sponsorship & Buyer Enquiry): www.ShanghaiTex.cn
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Official WebSite: www.aiftconference.com

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