



KARL MAYER

Kettenwirk

Textilinformationen

Praxis



Die Innovationen der Branche unter der Lupe – ITMA ASIA+CITME 2010

A close look at the textile industry's innovations – ITMA ASIA + CITME 2010

02/2010

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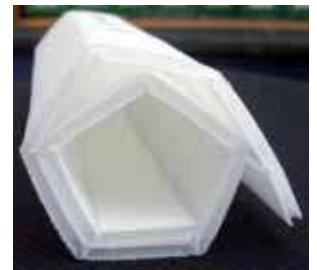
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Dark stripes on a light ground – the perfect fashion statement

A lingerie fabric with a zebra look produced on the RSE 6 EL

Vertical lines make zebras look slim and can also be used to create a striped effect on a curvaceous body. The top shown here from Lejaby® is a seductive example of this.

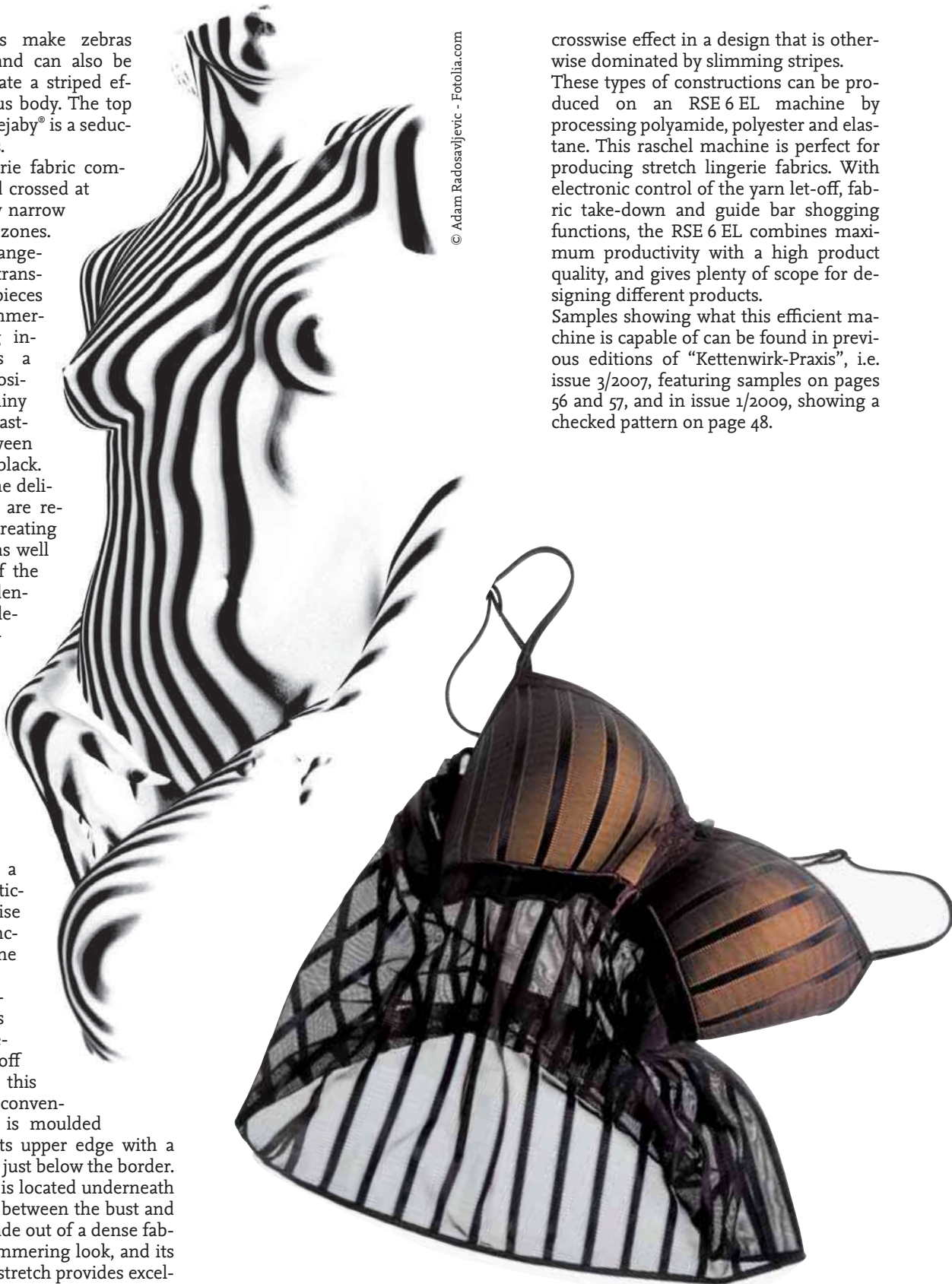
This delicate lingerie fabric comprises a net ground crossed at regular intervals by narrow stripes in denser zones.

The regular arrangement of the wide, transparent lengthwise pieces with the silky, shimmering sections lying in-between produces a charming juxtaposition of matt and shiny effects and a contrasting interplay between the skin tones and black.

The dark lines in the delicate mesh ground are responsible both for creating the optical effects as well as for the drape of the fabric. Their high density creates an element of weightiness in the filmy ground, and makes the material appear to flow.

The pattern, which consists of filigree, stretchable folds lying close to each other, produces a high degree of elasticity in the crosswise direction, in conjunction with the elastane used.

This well-thought-out textile with its look of simple elegance is shown off most effectively in this type of top. The conventional bra section is moulded and decorated at its upper edge with a narrow strip of lace just below the border. A wide, black band is located underneath the bust. The band between the bust and body sections is made out of a dense fabric with a silky, shimmering look, and its defined transverse stretch provides excellent support – the result is a striking



© Adam Radosavljevic - Fotolia.com

crosswise effect in a design that is otherwise dominated by slimming stripes.

These types of constructions can be produced on an RSE 6 EL machine by processing polyamide, polyester and elastane. This raschel machine is perfect for producing stretch lingerie fabrics. With electronic control of the yarn let-off, fabric take-down and guide bar shogging functions, the RSE 6 EL combines maximum productivity with a high product quality, and gives plenty of scope for designing different products.

Samples showing what this efficient machine is capable of can be found in previous editions of "Kettenwirk-Praxis", i.e. issue 3/2007, featuring samples on pages 56 and 57, and in issue 1/2009, showing a checked pattern on page 48.

A garment which makes a man wants to anchor

Panties with a girdle function from warp-knitted underwear fabric produced on an RSJ 4-1 and a Jacquardtronic® Lace machine

With these panties a girl must not spend too much time looking for clothes. A combination of sexy design and functional construction gives powerful emphasis to feminine forms and makes these hitched-up panties a functional hybrid product consisting of foundation wear and underwear. A power net internal reinforcement is used for smoothing and modelling. The elastic warp-knitted fabric stretches over the whole of the lower abdomen, extends in thin stripes over the hips, and runs to a point above the bottom. The taut power net is supported as regards compression by a raschel-knitted fabric produced on an RSJ 4-1 machine.

Two layers of underwear fabric, which is also elastic, are used in the front and side areas, as well as in the rear leg sections, while a single layer is used over the bottom to emphasize the curves – a well thought-out interplay with the elasticity to ensure perfect modelling of the silhouette.

This is an attractive combination of compressive and supporting forces. In the RSJ ground discreet small-repeat blossoms romp between the curved characters of the logo, and in the central part delicate lace emphasizes the art of feminine seduction. The filigree fabric with floral patterns can be produced efficiently on a Jacquardtronic® Lace machine. Every two of the lace ribbons are produced in matching blue shades and worked staggered in relation to one another. The result is a finely-delineated floral ensemble with extraordinary colour and pattern effects and a refined multiple-wave effect from bourdon yarns at the top – a clever ploy which will make it easy for a girl to get her man. These Ouslandai® hipster briefs were produced by the Chinese company, Shantou City Shijia Industry Co. Ltd. This well-known manufacturer of lingerie and sleepwear was founded in the Chinese province of Guangdong in 1995 and is committed to producing products of high quality and modern design. The company obtained ISO 9001 Certification in 2000. Women are enchanted by Ouslandai® lingerie, which bears the slogan “Elegance for all”.



3D warp-knitted textiles for seats and chairs – innovations with perfect suspension

Impressive contributions to promoting the use of warp-knitted spacer constructions in seats and chairs



Fig. background: © kallejpp - Photocase.de/fig. frame: © Atomic - Fotolia.com

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Warp-knitted spacer textiles offer many advantages when designing comfortable yet extravagant seats and chairs. These tough textiles are lightweight and provide excellent cushioning characteristics and breathability. They can be adapted extensively to suit their end-uses, are easy to look after, and can be integrated into any style of chair. A recent development is that they can now even be manufactured-to-shape. These soft, all-round textiles are also extremely hard-wearing. The weather has no effect on spacer textiles – regardless of if it's hot, snowing or raining – which makes them perfect for use outdoors. Despite their many advantages for producing comfortable seats, these relatively new materials have not exactly taken the furniture market by storm, since conventional combinations of foam and leather or sprung interiors and velour, for example, have tended to dominate the market. Nevertheless, the more innovative furniture manufacturers are increasingly gathering inspiration from these thick spacer textiles with their futuristic look, and have integrated them into completely new seat and chair designs. The pioneers in this respect are manufacturers of seats for people who sit down for long periods at a time, i.e. the office furniture sector, and seats in public buildings, which have been the first to be upholstered in spacer textiles.

The izi office chair for eye-level communication

The products of the office furniture manufacturer, Steelcase, support the activities

of office workers and the company is continuously improving its products, particularly in terms of their ergonomic features. The collaborative chair series izi (Fig. 1) is the latest design introduced by this Rosenheim-based manufacturer.

The icing on the cake of the design of this comfortable office chair is its extravagant look and its special dual swivel mechanism. The base and back of the seat can be moved in conjunction with or independently of each other to support a range of positions and body postures.

The seat back, with its flexible plastic elements, also provides reliable support during every movement. A cover made from a warp-knitted spacer textile is located on the inside of the flexible support system, which provides comfortable cushioning and adequate air circulation.

This high-performance chair with its exceptional styling was designed by Thomas Overthun in conjunction with Steelcase Design Studio, and was unveiled in Europe for the first time by Steelcase at the Bavarian Days event at the end of May 2009. The company was awarded the Industrial Design Excellence Award (IDEA) for the izi in the same year.

Embody™ for everybody

Embody™ (Fig. 2) is a thoroughbred office chair with one specific aim - to create harmony between the person and the technology that he is using. Working at a computer means long periods of very little movement, which reduces fitness and mental agility. In order to improve concentration, the chair is designed to support the thought process – logically and with every individual component. For example, the seat back is flexible so that it can follow the user's every movement in the chair. It is also narrow and frameless to give the arms and shoulders complete freedom of movement. The Backfit™ mechanism also adapts to the anatomy of the back, and keeps the head balanced in relation to the body.

In the pelvic and shoulder regions, three support zones in the seat back provide support without exerting any pressure on the thigh, a technology that supports the spine in a variety of different sitting positions. When the user leans back in the seat, his weight is also shifted backwards so that his eyes remain at the same height in relation to the computer screen.

The Embody™ offers further advantages in terms of weight management in the

shape of its Pixelated Support™ technology. The surface system in the seat and back areas conforms automatically to even the smallest movement of the body and distributes the weight evenly. This decreases the heart rate when the body is at rest and promotes the flow of blood.

The cover of the Embody™ has been cleverly designed – right down to the smallest detail. The three-dimensional mesh construction used here has already been used successfully in trainers, sneakers and geotextiles. It not only provides excellent cushioning, it is also breathable, transparent and hard-wearing. These voluminous spacer textiles are produced on warp knitting machines equipped with two needle bars.

This universal office chair is manufactured by Hermann Miller Inc. and was designed by Jeff Webber und Bill Stumpf.

The curtain rises on the COLORS.SEAT

Comfortable warp-knitted spacer textiles are not only in demand for seats that are in use for long periods at a time, they can also be used for relaxing in at special occasions, such as at the cinema, theatre or sports stadium.

Euro Seating is a company that specialises in manufacturing seats and chairs for public buildings. This global company, which has customers in roughly 80 countries, sets great store on diversity and quality, but especially on innovative design. One of Euro Seating's most recent new products is the COLORS.SEAT collection (Fig. 3), which comprises the Intense, Metal and Logic product lines, and thus combines three different design "signatures" in a single style concept. The interplay of the colours in particular creates a bold and distinctive, yet individual look at the same time, and opens up a wealth of possibilities to the upholstery material used. The chair is covered completely in a three-dimensional knitted textile. This voluminous textile consists of a dense ground with a three-dimensional, open, coarse mesh lying on top – a special construction that has a pleasant, soft feel on the one hand and provides

Fig. 1: Steelcase's izi collaborative chair series (photograph courtesy of Steelcase)
 Fig. 2: Herman Miller Embody™ chairs (photograph courtesy of the Cologne Fair)
 Fig. 3: The COLORS.SEAT from Euro Seating (photograph courtesy of the Cologne Fair)



visual diversity on the other hand. For example, a blue mesh on a black background produces a metallic effect, while the combination of black on top and a warm yellow colour underneath conjures up gold accents. Euro Seating has published a catalogue showing suggestions for possible colour combinations, arranged according to the three product lines. The textile that can offer this wide variety of options is produced by warp knitting

technology. A net fabric produced on a raschel machine can either be laminated onto a tricot fabric, or else the spacer textile can be produced in the piece on a double-bar raschel machine. Spacer textiles already offer numerous possibilities for designing seats and chairs, but these can be expanded even more thanks to the latest developments from KARL MAYER. For example, 3D textiles with fold lines incorporated into

them can be produced on the modern, double-bar raschel machines produced by this well-known manufacturer, so that the seat and back sections of the chair can be produced in a single piece. The spacer textiles can also be produced in contours that match the contours of the end product, so that they are practically ready to use – a welcome innovation which offers many advantages over the old types of seats.

Beautiful, glittering powernet fabric

Powernet fabric produced on the RSE 4 and embellished with Swarovsky crystals – an imaginative fabric produced by Vipteks Tekstil

Light and airy powernet fabrics usually stay discreetly in the background and yet they do not go unnoticed. They are used for decorative effect and to produce special designs. They envelop yet allow what is underneath to be seen, and they are the number one choice for enhancing something which is already beautiful.

Various making-up and finishing technologies bring added creativity to the decorative nets. Beautiful eye-catching effects can be created by printing, flocking, embroidering or applying appliqués, which bring an air of promise to feminine, seductive garments and conjure up a touch of magic in rooms where they are used as soft furnishings.

One example of this is the honeycomb structure shown here. A broad, decorative curve sweeps across the simple knitted fabric in a trail of glittering crystals and

sets the colour accents with its shades of red and brown. This sparkling trail, which is intended to enhance and beautify the look, was produced by sticking on tiny, decorative crystals using a sophisticated technique.

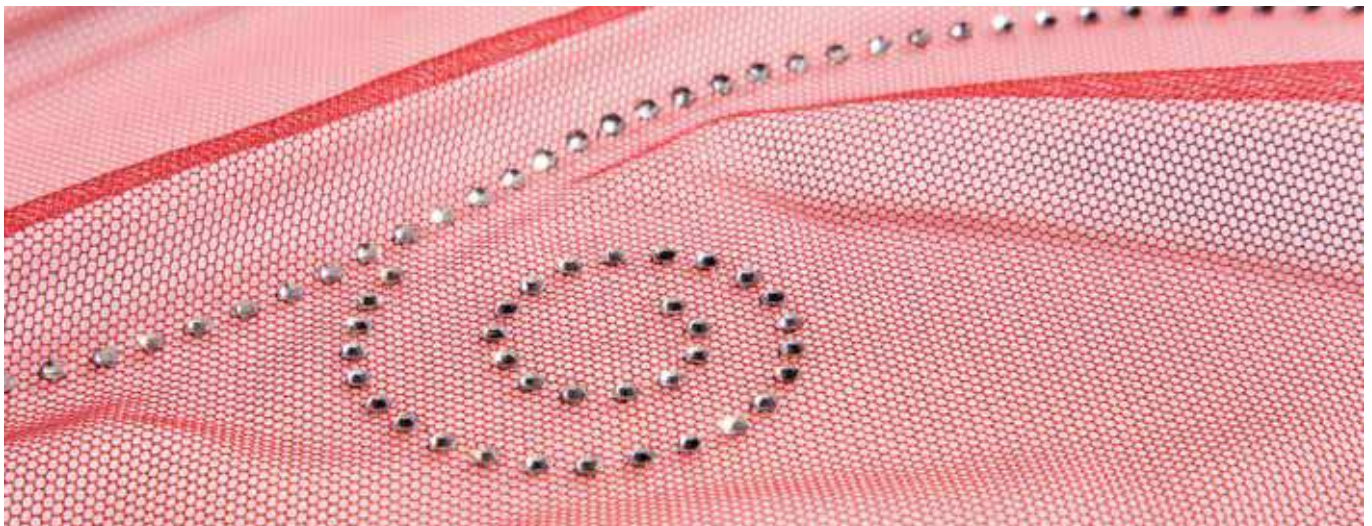
Piece by piece, each tiny, decorative crystal brings a touch of extravagance to the fabric and adds weight to the structure to create a flowing drape.

When made up into a garment, the net fabric gently envelops the female form, whilst the fabric's exceptional draping characteristics make it perfect for use as a curtaining fabric. Whether it is laid in opulent swathes, gathered into tiny gathers, or just left plain and simple, powernet fabric with its glittering effects gives plenty of scope for displaying a touch of individual style.

The fabric was produced on a KARL MAYER RSE 4 raschel machine by Vipteks Tek-

stil. This Turkish manufacturer specialises in producing fabrics for lingerie, clothing and home textiles, and is famous for the high quality of its beautiful products. The company manufactures perfect textiles in a wide variety of different designs in its state-of-the-art plant. Since Vipteks Tekstil was founded in 1996, it has continuously been expanding and modernising its production capacity. To this end, this textile company works closely with KARL MAYER.

The two companies began working together in 2002 and their cooperation has developed into a mutually beneficial partnership since then. Vipteks Tekstil currently operates roughly 17 KARL MAYER machines in its production halls. This textile manufacturer employs a workforce of 48, has an annual turnover of 6 million euros, and sells its products all over the world.



Protection against the sun without the risk of a blackout

Warp-knitted spacer fabrics as a textile alternative to products from plastic and aluminium in external roller blinds



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Dr Yvonne Zimmermann,
Dr Uwe Moehring, Thuringia-Vogtland
Textile Research Institute, Greiz,
(TITV Greiz)

External roller blinds are genuinely multitasking. They make rooms darker, help to keep the heat in, and protect against noise – they make living more secure and comfortable between four walls. Up to now there have been different solutions for the external area involving plastic and aluminium slats which have one thing in common: they are opaque. In particular, when it comes to protecting the eyesight, giving protection against dazzle or providing insulation, total dimming can be a disadvantage.

A roller blind which is translucent but still opaque in the closed state has been developed in the course of a research project at the Thuringia-Vogtland Textile Research Institute (TITV) in Greiz. A three-dimensional warp-knitted fabric forms the material basis for roller blinds in the outer area. The spacer fabric has the properties of usual commercial products, but is lighter and behaves in a sophisticated manner with regard to the light.

The construction of the three-dimensional warp-knitted fabric

The first stage in the project work related to investigations regarding the construc-

tion, manufacture and optimization of a suitable warp-knitted spacer fabric. What was deemed suitable was a three-dimensional fabric with a dense surface and areas free of pile ends for the creation of kink points – worked in directly during production. The developer also looked at the thickness of the fabric. Here a compromise had to be found between the possible minimum and the necessary maximum thickness of the textile and hence the stability, rolling behaviour and transparency. The parameters during the setting of the property profile were the fabric construction, the comb plate distance and the take-down. The ideal parameters of the grey goods for roller blind use are:

Thickness:	5.74 mm
Fabric weight:	477 g/m ²
Stitch density:	19.617 stitches/cm ²

Against all expectations, however, the rolling behaviour was beset with problems as a result of integrating the kink points. Here we still have to analyse how the pile-yarn-free channels in the fabric have to be constructed in order to minimize the roll-up diameter. For example, it is worth considering a greater frequency of kink points in the arrangement. The double raschel machines used in the production of the warp-knitted spacer fabrics, e.g. the RD 6 EL from KARL MAYER, have extensive design facilities.

Finishing of the three-dimensional warp-knitted fabric

Under the at times contrary weathering conditions of outdoor use the roller blinds must ensure good durability and serviceability – a requirement which can only be fulfilled by applying a suitable finish and coating to the textile fabric. The appropriate procedure was the object of a second stage within the framework of the project development. The purpose of the aftertreatment was to impart water- and soil-repellent as well as antimicrobial and flame-resistant properties to the three-dimensional warp-knitted fabric from 100 % polyester.

The path to this goal initially saw the stabilization of the three-dimensional textile structure using heat setting. This was followed by a washing-off process to remove the lubricants and add-ons. A continuous method involving impregnation and vacuum extraction led to the requisite compromise between material savings and an effective level of washing-off. After this the side of the roller blind textile facing the window was functionally evaluated using a flame-resistant finish based on organic phosphorus compounds.

A minimum add-on of flame-resistant finish applied by slop-padding on one side was sufficient for the whole of the textile structure to satisfy the requirements of building materials class B2. Next a transparent coating was given to

the warp-knitted spacer fabric, also on one side. In this instance different polyurethane coatings and a polyvinyl chloride paste were compared in the preliminary stages of extensive investigations. The viscosity was set in such a way that the applied substance penetrates into the fabric structure without passing through and the film adheres properly to the structure. It was possible to optimize the coating paste by the additional application of a flame retardant.

To achieve the requisite coating properties, it was better to use polyurethane than PVC, whilst there were no differences as regards process suitability: both direct and transfer coating can be used. The result is a polymer film which is abrasion-resistant, adequately flexible and printable.

The conclusion: a water- and soil-resistant finish to be applied in conjunction with an antibacterial finish.

Investigations on a demonstration model

As a third focus of the work within the research project, a demonstration model was developed in conjunction with the committee overseeing the project. The model consisted of a flame-resistant warp-knitted spacer fabric and also has flame-resistant polyurethane coating on one side. The coating was applied by the continuous transfer method.

To demonstrate the serviceability of the the warp-knitted spacer fabric the three-dimensional textile was integrated in a construction comprising a roller blind box and a frame (Fig. 1). The experimental equipment was used to investigate the rolling behaviour and weathering. The studies confirmed that the functionalized warp-knitted spacer fabric was suitable for use in textile roller blinds (Table 1) – also under differing weathering conditions.

Advantages of the new system

The textile-based roller blind system developed by the TITV ensures a clear sav-

ing in weight. Compared to conventional roller blind reinforcements the new solution is at least 2.5 kg/m² lighter – a weight reduction of at least 80 %, which is positive in particular when the necessary drives are selected. Since less powerful motors are now needed for rolling up and rolling out, the purchase costs can be reduced by up to 50 %.

The textile is opaque but translucent, and can be coloured by printing. A transmission of 25 % is achieved, depending on the colour chosen. Thus the light can penetrate both into the room from the outside as well as in the opposite direction. The advantage is that, on cold days, the roller blinds can be drawn all day to afford protection against the cold, whereas, when used to protect against the sun, no additional illumination is required for the otherwise completely dark rooms.

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Fig. 1: Demonstration model with textile roller blind

Test	Before stressing	During stressing (16 x)	After stressing (32 x)
Flammability behaviour of components, B2 DIN 4102 Part 1	Passed B2	Passed B2	Passed B2
Spraytest according to DIN EN 24920	ISO rating 3 from 5 AATCC rating 80 from 100	ISO rating 3 from 5 AATCC rating 80 from 100	ISO rating 3 from 5 AATCC rating 80 from 100
Fabric weight according to DIN EN 12127	614 g/m ²	614.3 g/m ²	614 g/m ²
Width according to DIN EN 1773	39 cm	39 cm	39 cm
Thickness according to DIN EN ISO 5084	3,56 mm	3,56 mm	3,56 mm
Lightfastness according to DIN EN ISO 105-B 02	rating 7 from 8	rating 7 from 8	rating 7 from 8
Air permeability according to DIN EN ISO 9237	Air from outside to inside: 7,8 l/m ² Air from inside to outside: no penetration	Test not possible	Air from inside to outside: 7,8 l/m ² Air from inside to outside: no penetration
Visual assessment	Smooth surface No damage	Smooth surface, not marked	Smooth surface
Operational test	Very good running during initial stressing	Very good running	Very good running after stressing
Rolling-up behaviour	Very good on initial stressing	Very good	Again very good after stressing

Table 1: Testing the properties



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KARL MAYER's powerful support for Indian weaving mills

KARL MAYER sets up KARL MAYER India Pvt. Ltd. as a service centre in India

Since last year, the Indian textile and clothing sector has once again been set on course for growth.

With an increase in turnover of 19.7 % in the second quarter of the 2009 financial year compared to the same period last year, the weaving industry has seen a definite economic upturn.

Dayanidhi Maran, India's Textile Minister, explained that companies are keen to invest. This politician went on to say that weaving companies are planning to implement five projects for an investment of roughly 22 million euros over the next few months [1], and KARL MAYER is supporting these projects by making its warp preparation machines available and by operating a tight, well-organised service network.

This textile machinery manufacturer, which has its headquarters in Obertshausen, has been providing its customers with technical support for many years,

and set up a new company last year to do this.

Organisation of KARL MAYER India Pvt. Ltd.

KARL MAYER India Pvt. Ltd. has been operating since the beginning of 2009 to support KARL MAYER's customers in India. This service organisation, set up recently by KARL MAYER, is intended to integrate the service teams of newly acquired Benninger, Sucker and Griffin into the company's own operations, and will cooperate closely with this international company's service centres in Asia. There are now four of these:

- NIPPON MAYER Ltd., which is based in Fukui and covers Japan
- KARL MAYER Technical Service Co. Ltd., which is based in Wujin and covers China
- KARL MAYER India Pvt. Ltd., which is based in Mumbai and covers India

- KARL MAYER (H.K.) Ltd., which is based in Hong Kong and covers the remaining countries of Asia

With the setting-up of KARL MAYER India Pvt. Ltd., KARL MAYER has expanded its service activities in India and supports all its own warp preparation machines as well as the machines that had previously been installed by Benninger, Sucker and Griffin.

Organisation of the new service centres

KARL MAYER India Pvt. Ltd. is located in the same offices as KARL MAYER's agent in Mumbai, A.T.E. The head of KARL MAYER Hong Kong, Kevin Socha, is also the managing director of the new company, and Datta Sidgiddi, the regional service manager, is responsible for coordinating the service engineers' call-outs. These experienced machine specialists go out on service jobs from the technical support centres in the textile centres of

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Optimum pattern yarn feed – even at high speed

KARL MAYER has developed an active pattern beam drive for its high-speed lace machines

Warp-knitted lace fabrics are patterned with beautiful, filigree patterns featuring flexible and long repeats, imaginative design elements and a variety of different structures. In short, the fabrics feature a wide range of different effects that can only be produced using highly sophisticated technology.

KARL MAYER's lace raschel machines are the machines of choice when it comes to reliable, efficient production. The machines produced by this well-known, traditional company can currently reach operating speeds of up to 850 min⁻¹. They can process a wide variety of different yarns and offer virtually unlimited patterning possibilities. KARL MAYER's lace raschel machines offer a unique level of performance, which is the result of constant optimisation – right down to the very last detail. One of the most recent improvements relates to the yarn feed.

The knitting process must be able to handle different levels of yarn consumption with a high degree of flexibility to produce the wide variety of different patterns – and this must be harmonised with the operating speed. Depending on the speed of the machines, two systems have therefore been used until now to deliver the pattern yarns, i.e. pattern beams and creels.

Passive pattern yarn feed

The pattern beams run on ball bearings and are driven by the yarn let-off system at the knitting point – a solution which has its limitations at high machine speeds. Despite the use of balancing units, the physically induced mass inertia of the longitudinal shafts, together with the yarn warps which are arranged in a row, is so great that it can cause undesirable changes in the fabric appearance. Acceleration causes distortion, whilst braking results in undesirable compaction. Consequently the system using the pattern beams is limited when higher speeds are required. Creels were used previously to deliver the pattern yarns at higher speeds. However, these multi-position creel systems require a large amount of space, and especially a large number of bobbins which are loaded onto them – this is a disadvantage which, in particular, makes pattern development and processing small runs expensive and complicated.



Fig.: Servo system with mounting of the new, active pattern yarn delivery system

Pattern yarn feed via yarn-tension-controlled drives

As an alternative, KARL MAYER has now developed a pattern beam with active drive. The new system consists of a sensor for determining the yarn tension in one yarn for each pattern beam axle, and a motor system whose speed is controlled on the basis of the results of equalising the target/measured values. In this case, the desired values have to be input in advance. As a result, any fluctuations in consumption are equalised, even at high operating speeds, and any mass-induced imbalances are evened out. This means

that the balancing units are no longer needed at the pattern beams but, above all, creels are no longer required to deliver the pattern yarns on high-speed lace machines.

Market launch

This innovative control principle has already been used in practice by customers operating lace raschel machines. The system consists of a yarn-tension-controlled yarn delivery system and can be used with all pattern beams. It is based on the tried-and-tested servo system, which has been successfully used for many years

now for driving the string bars. A new and improved version is currently being tested. The changes that are incorporated in this improved version relate to the use of a new type of motor and replacing the existing friction control system with toothed wheels for power transmission.

The product should be ready for launching onto the market by the end of this year, and will give customers a range of options. Lace raschel machines with creels and pattern beams are still available if required.

A retrofittable version for existing machines is also planned.

KARL MAYER (H.K.) Ltd. – playing away from home but with a home advantage

KARL MAYER increases its presence in Asia by expanding its subsidiary in Hong Kong

As the market continues to grow in Asia, manufacturers are also stepping up their operations there. International companies are intensifying their supply relationships with Asian companies and setting up subsidiaries in the booming conurbations of this huge continent, or else they are concentrating on increasing their existing capacities. And KARL MAYER is no exception.

This leading manufacturer of warp knitting machines and warp preparation machinery has had its own subsidiary in Hong Kong since 1985, and since then, has been constantly adapting the range of services available in order to cater for the growing demand. KARL MAYER expanded its base in Hong Kong at the beginning of this year. The expansion focused on increasing the number of employees and moving into new offices. The new, modern premises cover an area of 200 m², which is adequate space for liaising with clients and for housing the back-office team, which has increased from eight to 14.

Sales and marketing activities follow the play of the market

The workforce at KARL MAYER (H.K.) Ltd. includes experts from Germany and England, which puts it on an international footing. The workers are responsible for managing the selling and marketing of all KARL MAYER's machinery on the Asian market as a whole. There are a few exceptions to this, i.e. the customer support operations in Japan, selected prov-

inces in China in relation to warp knitting machines, and the machines produced by KARL MAYER Malimo. KARL MAYER's warp preparation machines are also sold in China and in selected countries only from the base in Hong Kong.

The workers in Hong Kong are responsible for selling KARL MAYER's products in all their sales regions of Asia. They are also responsible for marketing and liaise directly with clients - and this is always done by working closely with the national sales agencies. The regional sales managers, therefore, have the right expertise to call on and are responsible for organising the operations. "With our current sales set-up, we are in close contact with our clients. We are quick to spot changing trends in demand, and can react rapidly to them", explained Kevin Socha, the head of KARL MAYER Hong Kong when describing the services provided by his staff. He also added that it was easier to transfer money between banks in Asia than between different continents.

A prompt, professional service

As well as sales and marketing, KARL MAYER Hong Kong is also responsible for the servicing operations. From the new offices, the staff coordinates and organises the activities of the service engineers all over Asia, with the exception of Japan.

The expert assembly specialists come either from KARL MAYER (Changzhou) Technical Services Ltd. - a subsidiary of KARL MAYER (H.K.) Ltd. that is responsi-

ble for China - or from a network of field personnel who are responsible for the remaining areas. A specialist team is also available for supporting the machines manufactured by KARL MAYER Malimo. In short, the right level of expertise is available in the right place at the right time! Any spare parts needed can be obtained just as quickly from Hong Kong. The new premises also house a well-organised spare parts warehouse to ensure that the key components needed most frequently can be delivered quickly.

A great deal of time and effort were spent on setting-up the warehouse, moving into the new premises and expanding the team in Hong Kong, and the process was not without its problems.

However, after a brief consolidation phase, KARL MAYER's new subsidiary is now fully operational - just in time to cope with the current, buoyant order situation.

Fig.: It's all systems go in the new offices of KARL MAYER (H.K.) Ltd.



An international meeting of specialists where chemistry has a say

49th Dornbirn Man-made Fibres Conference, 15-17 September 2010

Forward to new thinking, back to normality is the motto for the economy in this post-crisis year of 2010. In stabilizing the situation one should no longer reckon on the easy availability of cheap sources of energy. The new economic era and the consumers will rather be strongly influenced by global themes such as the environment, sustainability, the conservation of resources and population growth – a development which also affects the textile and man-made fibres industry and hence its leading European/American event, the Man-made Fibres Conference in Dornbirn. The 49th version of this top-class conference series will be held between 15 and 17 September 2010 at the Dornbirn House of Culture as usual. The organizer, the Austrian Man-made Fibres Institute, is reckoning on over 700 participants from 30 nations. The schedule will include an exhibition, a joint evening event, and what is most important: more than 100 reports. One of the focal points of the reports from industry and academic research will be bionics.

Plenary reports relating to sector trends

The six plenary reports will deal with the general themes of the sector. Thus the European Man-made Fibres Association will report on the requirements of the global man-made fibre market, the Chinese Chemical Fibres Association on developments in the Chinese fibre industry in a growth market, and the consultant Global Fibers & Feedstocks Advisory from Houston on trends market influencing synthetic fibres after the great recession.

In addition the University of Ghent will report on bionics in the development of polymers and fibres, while EDANA, with headquarters in Brussels, will feature the requirements relating to, and opportunities for, the producers of nonwovens in the automotive sector. To round off the proceedings the Hochschule Niederrhein in Mönchengladbach will review the current and future end-uses for fibres in the transport sector.

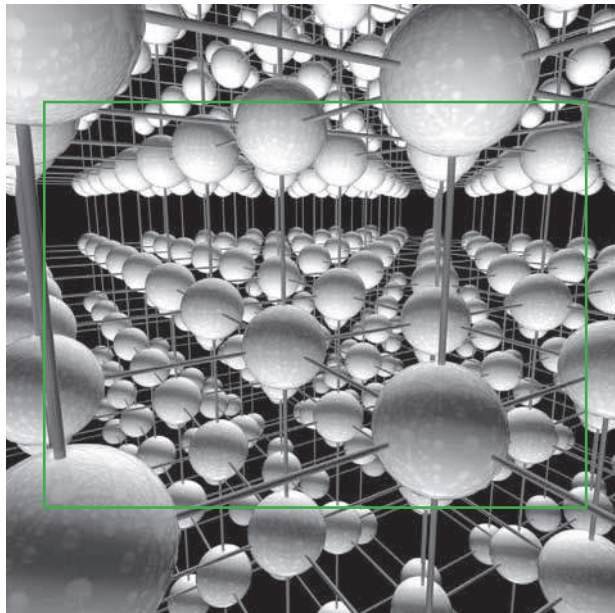
Individual reports in four sections

The individual reports at this year's Man-

made Fibres Conference will be divided into four sections:

- new developments in fibres
- fibres and textiles for the transport sector
- nonwovens
- new properties achievable through finishes and modification

The section "New developments in fibres" will be represented by 32 reports on all two and a half days. Eminent international fibre producers from the whole of Europe, including Turkey, the USA and Japan will present papers which are just



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as innovative as renowned institutes from Europe and the USA.

In the case of warp knitting the introduction of a new generation of flame-retardant industrial polyester yarns and a nylon 4.6 with improved heat resistance from Polyamid High Performance GmbH will be of special interest, as will a report from Huntsman Performance Products on Elastamin® amines for nylon fibres with new properties, the information from Korteks on the production of a new antimicrobial polyester yarn using softeners, and a contribution from Invista on the options for improving the levelness of fabrics with high elasticity.

The section "Fibres and textiles for the transport sector" also covers for the first time reports on the automotive industry and research into man-made fibres in the

car. With 34 papers this section will really stand out. There will be the following highlights for the manufacturer of warp-knitted fabrics: a Korteks report on the development of a hybrid polyester yarn for automotive fabrics with improved elastic recovery; a paper from the Thueringen-Vogtland Textile Research Institute on fibres for smart textile applications in the car interior; information on new opportunities with luminous textiles in technology and emotional configuration from ITV Denkendorf, and the introduction of a metal composite sheet for lightweight constructions, also from ITV.

Finally, the "Nonwovens" section is represented by ten reports, and the section "New properties through finishes and modification" will include 20 reports. The emphasis here is on "Technical textiles". This schedule will be rounded off by the presentation of three EU research projects.

New: podium discussion with experts

A one-hour public discussion is planned for 17.10 on 16 September. High-ranking representatives from industry, research and also the specialist media will be taking part. During the general discussion what has been learnt from most of the discussions will be gone into and the results will be analysed.

Research relevant to the market is becoming more important

In its 49th year the Man-made Fibres Conference is expected to indicate the way for coping with the new demands of the coming years. In future there will be more market-relevant research. This means that, as a result of co-operation between industry, the universities and technical colleges, products will be looked at in the round and production will be customized and configured to costs. The aim should be to show future generations a future which is positive in the long term and to guarantee the man-made fibre and textile industry the necessary qualified young blood. This also includes making the event accessible to students and young members of staff.

Further information can be obtained from: www.dornbirn-mfc.com.

Made-by-nature net structure in enchanting blossom ambiance

KARL MAYER Pattern No. 25/2010

(Design No. JL 59 1B 0008)

from a Jacquardtronic® Lace with 59 guide bars, from which 56 pattern guide bars, ground guide bar 1 (pillar stitch) as well as 1 Piezo Jacquard bar (JB 59+60), and ground guide bar 61 (elastane)

Pattern number two produced on a JL 59/1 B machine shows a flower edging in art deco style. This lace band consists of three elongated areas, placed next to one another; their concise and outstanding shaping forms a most striking contrast between transparency and density: widely spreading and thickly drawn flowers at the lower edge, a rather puristic bloomy border at the upper trimming, and a delicate band with a fine, almost organically grown net structure as well as playfully arranged curls in between – a stripe pattern made on a JL 59/1 B machine operating with sequential fabric take-up and run-in system. Concretely GB 1 and JB 59+60 as well as the fabric take-up work sequentially (values on request). The filigree effect of the transparent part is achieved both by the thin yarn material, processed by the GB 1 to form pillar stitch, and by the high machine gauge. Another distinctive feature: the JL 59/1 B works the lace band crosswise, i.e. one below the other in the running meter.

This pattern was developed by KARL MAYER in cooperation with Moulinage du Plouy.

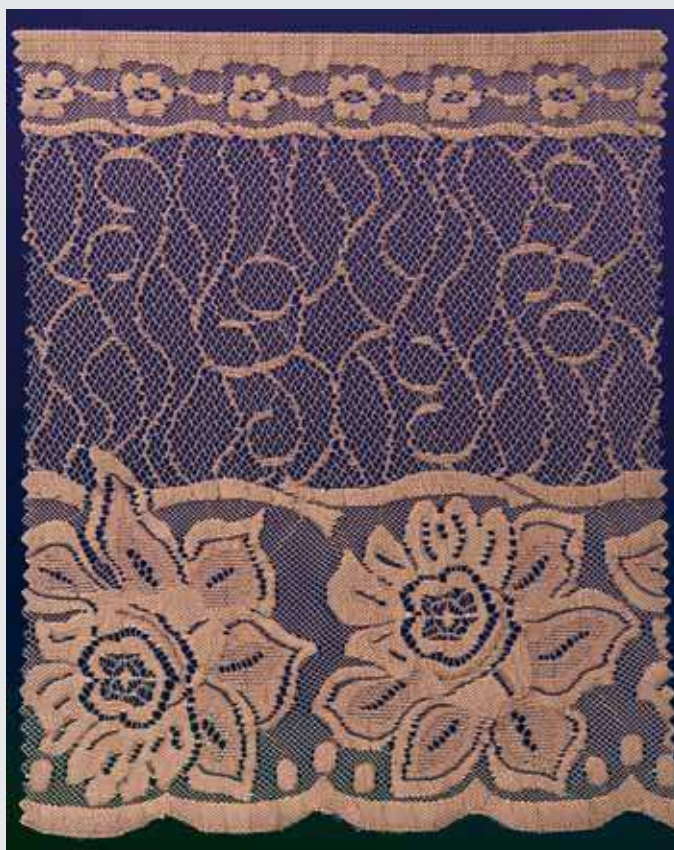
Pattern (finished fabric)

Stitch courses: 53/cm (set: 24+28/cm)
Weight: 21,52 g/m
Finished fabric: 91 % of the knitting width

Finishing: Relaxation, washing, setting, dyeing, drying, stentering

Machine

Machine type: JL 59/1 B
Machine gauge: E 28
(needles/25.4 mm = 1")
Machine width: 134" (340 cm)
No. of guide bars: 59
Machine speed: 850 [min⁻¹]
Production (finished fabric): 9.6 running m/h



Bars	Material specification	Run-in per rack	Lapping	Threading
GB 1	dtex 33 f 10 polyamide semi-dull, flat	1010 mm/rack	1-0/0-1//	fully set
PB 11, 34	dtex 110 f 48 x 2 polyamide 6.6 textured	pattern beam		
PB 35-58	dtex 78 f 34 polyamide 6.6 textured	creel		
JB 59+60	dtex 44 f 34 polyamide 6.6 bright, flat	270 mm/rack	0-0/2-2//	fully set
GB 61	dtex 78 Lycra® clear	125 mm/rack	1-1/0-0//	fully set