

<http://www.innovationintextiles.com/warp-knitted-spacer-fabrics-for-a-good-nights-sleep/>

[Log in](#) [Sign Up](#)

[About Us](#) [Contact Us](#) [Advertise With Us](#)



[Home](#)

[Technology](#)

[Markets](#)

[Events](#)



[HOME](#) > [FIBRES, YARNS & FABRICS](#) > [WARP-KNITTED SPACER FABRICS FOR A GOOD NIGHTS SLEEP](#)



Talking Heads

Exclusive interviews
with movers and shakers

22nd February 2011, Obertshausen

Warp-knitted spacer fabrics for nights sleep

0 comment

With testing for resistance to dust mites, compression testing for

<http://www.innovationintextiles.com/warp-knitted-spacer-fabrics-for-a-good-nights-sleep/>

PRINT

SHARE VIA

RELATED NEWS

Textile Exchange's Market Reports show companies driving industry transformation

Anti-dust mite textiles may help relieve neurodermatitis symptoms

Monforts to present latest stenter for filter materials at Filtech

Primaloft launches Primaloft Gold Insulation Eco with 55% recycled content

Cinte Tectextil China to welcome new European exhibitors

FIBRES, YARNS & FABRICS
MEDICAL, HEALTH & HYGIENE
INTERIORS

performance, and comfort tests that simulate what actually occurs during sleep – the peaceful, easy going times are surely well and truly over for the bedding sector. Well-thought-out systems for mattresses create both a pleasant, comfortable climate under the covers and allow a healthy posture when lying down, to enable the body to recover completely over a period of at least eight hours. Leading textile machinery manufacturer Karl Mayer has some solutions..

According to the German warp knitting machine manufacturer, what might sound like a daydreamer's wish list, can be met easily but effectively by w... The voluminous fabrics are specifically designed to be compression-resistant, breath... with moisture. In addition, perspiration and water vapour can be consistently wicked... construction and the structure of the fabrics' cover faces.

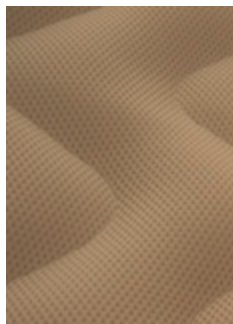
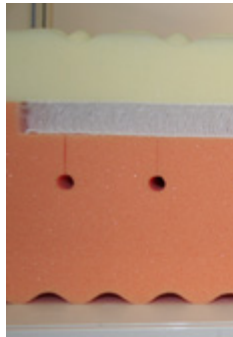
Karl Mayer says the potential offered by the production process to incorporate zone... make spacer textiles the preferred choice for combining with other materials – a dev... manufacturer of machines for producing spacer textiles, has taken into account.

The company's efficient, double-bar HighDistance HD 6 EL 20-65 and HD 6/20-35 m... the mattress industry for producing high-quality, functional, three-dimensional cushi... On the other hand, Karl Mayer says, the RD 6/1-12 and RDPJ 7/1 are both perfect fo... covers or sections of mattress covers. They are also equipped with two needle bars a... constructions. In addition, the company's TM 2 tricot machine, which operates at a hi... available for producing two-dimensional cover fabrics.

Breathable cushioning elements

Conventional mattresses are as diverse as the body shapes of their users. Some are made from spring interiors, latexes or foams, and then there are the unconventional types, such as waterbeds, air core mattresses, futons and, of course, mattresses that are a combination of these. Combining different materials is said to be becoming more and more important.

Mattress manufacturers are said to be increasingly using



<http://www.innovationintextiles.com/warp-knitted-spacer-fabrics-for-a-good-nights-sleep/>

FREE weekly e-newsletter

The week's key stories,
direct to your inbox.

Be the first to know.

Enter your email here



Subscribe

Expert Opinion



Debra
Cobb

1st July 2016

Expert Opinion

**The Renewal Workshop:
Connecting Brands to the
Circular Economy**

The Renewal Workshop will create a new category of product called Renewed Apparel, said Jeff Denby, the co-cre

warp-knitted spacer fabrics combined with other materials to ensure that their products meet ergonomic requirements.

However, Karl Mayer says, they are usually only used as the

cushioning/padding element, which does not fully utilise their ability to optimise the

functional 3D fabrics are usually located in a foam frame or used as a continuous layer

are only rarely used as the surface against which the person lies, according to Karl M

says, 3D warp-knitted fabrics are making inroads into the actual mattresses themselves

already making their mattresses entirely out of spacer textiles and the Southern Euro

manufacturers are leading the way in this.

Karl Mayer launched a new double-bar raschel machine designated the HD 6/20-35, market specialising in thicker, warp-knitted spacer textiles to coincide with the opening

ASIA+CITME trade fair. The company says it can now react quicker to growing demand

machines. The HD 6/20-35 is the basic version of the HD 6 EL 20-65, which is already

the market, and completes the range of HighDistance machines. Whereas the full-size

distance between the knock-over comb bars of 20-65 mm, can produce fabrics with a

the new machine produces spacer fabrics with a thickness of 18-30 mm and has a dis

comb bars of 20-35 mm.

According to Karl Mayer, regardless of their format, all 3D warp-knitted textiles produced

machines have extremely reliable performance characteristics. As far as mattresses a

they must have stable compression values, specific spot elasticity and exceptional ver

functional characteristics that can be produced economically by using efficient produ

At a working width of 110 inches and a gauge of E 12, the HD 6/20-35 can achieve a m

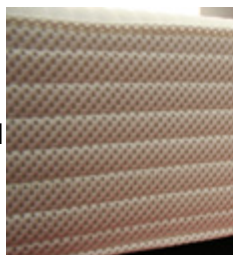
300 rpm or 600 courses/min. The thicker spacer fabrics can be produced at a maximum

400 courses/min.

Side borders and entire mattress covers

“The mattress cover has a pronounced influence on the initial perception of comfort when the person first lies down, and should therefore be very soft – a requirement that is usually met by conventional mattresses having multilayer constructions,” Karl Mayer explains.

“In this case, the conventional combinations usually consist of a



Russia aims to attract foreign investment in national technical textiles industry
Eugene Gerden



How DNA is Taking the Guesswork Out of Premium Cotton Branding
Debra Cobb



All Experts >

Events Calendar 2016

30 July - 1 August 2016

Hofheim-Wallau
Innatex

3-6 August 2016

Salt Lake City, UT
Outdoor Retailer
Summer Market 2016

3-5 August 2016

Dartmouth, MA
American Flock
Association triennial

smooth surface combined with nonwoven waddings or foams. The main disadvantage of joining them together by laminating or quilting processes is that the removable covers are difficult to clean and their elasticity is poor. Furthermore, the exchange of air with the surrounding environment is hampered by the high density of the material. The only breathable areas in the mattresses are usually from thin, warp-knitted spacer textiles having mesh constructions.”



“Modern designs are becoming increasingly popular for patterning the outer sides of 6/1-12 and the RDPJ 7/1 double-bar raschel machines offer numerous possibilities. The 3D warp-knitted textiles with a distance between the knock-over comb bars of 1-12 wide range of different lappings, and is also extremely productive. This high-speed machine operating speed of 475 rpm or 950 courses/min,” Karl Mayer says.

Even wider pattern range

According to Karl Mayer, the RDPJ 7/1 can produce an even wider range of patterns. The creative, double-bar raschel machine is said to combine maximum efficiency and flexibility, and the distance between the knock-over comb bars can be varied from 2 to 8 mm. It can also process a wide range of different materials and produces jacquard patterns.

The machine’s EL control facility enables an even wider variety of spacer textiles to be produced. The machine’s electronic facilities permit alternating 2D and 3D zones as well as different lappings to be worked, which influences the characteristics of the fabric. The modifications mainly relate to the pile strength and the elongation values in the lengthwise and crosswise directions. The RDPJ 7/1 can be used to produce attractive, all over patterns, mattress borders whose end product in the appropriate widths, lettering, different lappings, and functional elements and pockets.



As well as being used in the side borders, the soft, low-dimensioned, attractive, warp-knitted spacer textiles produced on Karl Mayer’s double-bar raschel machines can also be made into entire functional cover fabrics, with their airy construction, are said to optimise the sleeping

<http://www.innovationintextiles.com/warp-knitted-spacer-fabrics-for-a-good-nights-sleep/>

Flock School

9-12 August 2016

Blumenau
Febratex 2016

washed and dried easily, and then put back onto the mattress again with no problems. warp-knitted fabrics can also be quilted easily in the designs typically used for padding.

According to Karl Mayer, in addition to voluminous mattress covers, flat covering machines are also an up-and-coming trend. Karl Mayer's TM 2 machine is said to be ideal for producing fabrics; the TM 2 is a two-bar tricot machine which is fast and flexible and produces tricot. Depending on the lapping and yarn used, the TM 2 can operate at speeds of up to 2500 rpm.

"With their exceptional breathability and cushioning that corresponds to the shape of the body, spacer textiles provide a high level of comfort and enable the sleeper to rest and recover. They ensure a sound and healthy sleep – the perfect solution for getting a good night's sleep!" says Karl Mayer.

Author:
Innovation in Textiles

[Please sign in to setup category email alerts](#)

MORE: BY THIS AUTHOR

MORE: IN THIS CATEGORY

[Curt G. Joa Europe relocates to Mayen](#)

[Textile Exchange's Market Reports show companies driving industry transformation](#)

[Spacer textiles](#)

[SGL Group ceramic component reaches Jupiter's orbit in Juno spacecraft](#)

[Anti-dust mite textiles may help relieve neurodermatitis symptoms](#)

[Reaction textiles](#)

[Textile Exchange's Market Reports show companies driving industry transformation](#)

[Monforts to present latest stenter for filter materials at Filtech](#)

[Eschsch](#)
[Techn](#)

Google +

StumbleUpon

Comments

Explore Litigation Insights

Docket Alarm provides insights to develop a more informed litigation strategy and the peace of mind of knowing you're on top of things.

Real-Time Litigation Alerts



Keep your litigation team up-to-date with **real-time alerts** and advanced team management tools built for the enterprise, all while greatly reducing PACER spend.

Our comprehensive service means we can handle Federal, State, and Administrative courts across the country.

Advanced Docket Research



With over 230 million records, Docket Alarm's cloud-native docket research platform finds what other services can't. Coverage includes Federal, State, plus PTAB, TTAB, ITC and NLRB decisions, all in one place.

Identify arguments that have been successful in the past with full text, pinpoint searching. Link to case law cited within any court document via Fastcase.

Analytics At Your Fingertips



Learn what happened the last time a particular judge, opposing counsel or company faced cases similar to yours.

Advanced out-of-the-box PTAB and TTAB analytics are always at your fingertips.

API

Docket Alarm offers a powerful API (application programming interface) to developers that want to integrate case filings into their apps.

LAW FIRMS

Build custom dashboards for your attorneys and clients with live data direct from the court.

Automate many repetitive legal tasks like conflict checks, document management, and marketing.

FINANCIAL INSTITUTIONS

Litigation and bankruptcy checks for companies and debtors.

E-DISCOVERY AND LEGAL VENDORS

Sync your system to PACER to automate legal marketing.