

## **Presseinformation / press release**

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*Nummer / number: 2321*

*Datum / date: 07.06.2021*

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## **Living with more effects**

New WEFT.FASHION TM 3 patterns demonstrate the variety of decorative yarns that can be used

KARL MAYER's WEFT.FASHION TM 3 benefits from the high productivity of the warp knitting mill to produce curtain articles featuring the most popular weaving-like looks. The design potential offered in this process is manifold. KARL MAYER's textile developers had already started testing out the possibilities on the prototype. Initial work concentrated on the basic structure, while further trials looked at incorporating simple effect yarns as full inserted wefts. The created samples – wafer-thin, extremely transparent and feather-light qualities with a basic organza structure and decorative thread covering the entire surface – were shown at Heimtextil in Frankfurt am Main in 2019 and met with great interest.

In their latest project, KARL MAYER's textile developers looked further into using effect yarns. They tested the processing of a total of 40 variants of different designs on a series machine that is now available. Among other things, knots, burls, loops, graver hair, fringes, Lurex® spots, mini sequins, twists and pleats made the thread material truly eye-catching in a full inlay. The gauge of the design threads was just as varied as their appearance. Rough representatives had thicknesses of up to dtex 5,500, while the most delicate had a thickness of dtex 500.

## **Perfect machine running across all effect yarns**

As the focus of the processing tests was on effect yarns, a simple pattern was chosen for the base fabric. Ground guide bar GB 1 ensures high longitudinal stability with a pillar stitch. GB 2 implements an inlay under two needles. This resulted in a voile-like, structurally stable textile with a dense surface but sufficient transparency for a conventional curtain article. The discreet view through was achieved by using a machine gauge of E 24 and a high yarn gauge. Polyester dtex 50 f 24 was used in both ground guide bars.

All of the 36 decorative threads used could be easily integrated into this fabric base. Neither the machine speed nor the fabric appearance had to be compromised. "Even with variants where we had reservations, for example because of the yarn thickness or design, we reached our target of 1,500 rpm on the machine," says Jürgen Wohlrab from KARL MAYER's Textile Technology Product Development department.

Perfect quality was also achieved by balancing the stitch density, yarn gauge and feed distance. Thin threads must be firmly bound into the ground by a higher number of stitches per cm. Otherwise they can just be pulled out, based on Jürgen Wohlrab's experience. In contrast, thick, heavy and fluffy effect yarns require a low stitch density to prevent the pattern thread from pinching or even the basic structure from bursting. This correlation between stitch density and yarn gauge becomes less important as the number of weft threads per unit length decreases. During KARL MAYER's processing tests, a decorative thread was registered approx. every 1.5 cm. In view of the large spacing, the stitch density – adjusted to 18 stitches/cm – could be kept constant.

### **Further design potential for the fabric ground and effect yarns**

Pattern yarns not only render sophisticated design effects possible thanks to their diverse constructions, but also by playing with the yarn tension during integration. For example, base fabrics with taut, fluffy variants can spring into place after being removed from the machine and thus form a striking crepe-like surface. Jürgen Wohlrab wants to test this in further investigations. He also wants to use the patterning possibilities of three-bar tricot machines, which the WEFT.FASHION TM 3 offers in principle, to design new base fabrics. It would be conceivable, for example, to produce textile structures with lengthwise stripes of varying density by using a mesh treading. Used crosswise, it could be used to create striking base curtains.

Through the targeted variation of threading, yarn selection and textile construction, it is also possible to open up applications beyond the curtain sector, e.g. for upholstery and clothing, such as light blouses, dresses or trousers.

### **A specialist in producing warp knitted home textiles**

The WEFT.FASHION TM 3 is an efficient tricot machine with course-oriented weft-insertion for producing medium-weight home textiles. The basic equipment includes three ground guide bars and a system for inserting up to 24 weft threads. These are delivered from a creel and laid across the entire working width. The guide bars are controlled by pattern disks. The machine delivers an exceptional cost-to-benefit ratio, runs extremely reliably, and is easy to operate. It is available in a gauge of E 24 with a working width of 132". Its product portfolio includes warp knitted curtains with incorporated effect yarns, maximum 3.25 m in length and imitating woven material. Unlike weaving, warp knitting does not require a sizing process, nor the corresponding use of water, chemicals or energy. Productivity is also excellent. On the WEFT.FASHION TM 3, depending on the article being produced, up to 60 m of curtain fabric can be produced per hour.