DIBELLA

Wash!

TERRY TOWELLING SPECIAL

EDITORIAL

> Our terry range combines exceptional durability with functionality, efficiency and sustainable features

Dear Reader,

the outlook for the hospitality industry is encouraging: the United Nations World Tourism Organization (UNWTO) forecasts annual growth of three to five per cent for the travel sector through to 2030. This is also good news for textile service providers, as higher occupancy rates lead to increased laundry volumes. When operations are running at full capacity, our hospitality textiles once again demonstrate their reliability and durability.

This applies not only to our bed linen but also to our towelling products. Our terry range combines exceptional durability with functionality, efficiency and sustainable features, making it ideally suited to the challenges faced by modern textile service companies. Every product is the result of expert development, carefully considered material selection and a deep understanding of industrial laundry processes.

In this issue of Wash!, we explore a range of interesting topics relating to the quality criteria of terry textiles, including weight before and after laundering, how to minimise linting, and ways to achieve more energy-efficient processing.

I hope you enjoy reading this issue.

Yours sincerely,

Klaus Baur

Dibella's Terry Towelling Expertise:

DELIVERING PERFORMANCE ACROSS THE BOARD

Our terry towelling range is a core component of our professional hospitality textiles portfolio. It offers durable, functional and sustainable solutions from a single source, encompassing towels, bath mats and bathrobes in a variety of sizes, styles, materials and weight categories.

Each quality has been carefully developed to meet the demands of everyday use and repeated industrial laundering. Our towelling products retain their brilliant whiteness, soft and fluffy feel, and excellent absorbency. They are low-linting and dimensionally stable, helping to ensure smooth and efficient processing in industrial laundries.

Our latest range, made from a modern cotton-polyester blend, goes one step further: it enhances drying performance while reducing energy consumption and associated costs.

Terry Towels

Our range includes terry towels featuring differently designed borders that allow for quick and easy identification of the fabric weight. Among them are towels with striped patterns created through a raised-and-recessed effect within the fabric. This effect is achieved through a modified weave structure that behaves identically to the towel body, ensuring dimensional stability and distortion-free performance during industrial laundering.

We offer towels with one, two, three or six stripes. For textile service providers operating linen pool systems, the number of stripes provides a simple visual distinction between the weight categories in our range: towels with one stripe correspond to 400 g/m², two stripes indicate 450 g/m², and three stripes represent 500 g/m². The elegant multi-stripe design, meanwhile, identifies our premium 470 g/m² quality made from 100 % organic Fairtrade cotton.

For particularly luxurious applications, we also offer towels with higher fabric weights ranging from 550 to 600 g/m². These are available either with a tension-free, distortion-resistant woven border or in a plain design with an American hem. Qualities are available in conventional cotton, 100% organic Fairtrade cotton, and an energy-saving blend of 80% cotton and 20% polyester.

Bath Mats

Our design concept continues throughout our range of durable ring-spun terry bath mats. These are available with an all-round raised-and-recessed stripe design in a 600 g/m² quality, either in conventional cotton or in a faster-drying cotton-polyester blend. We also offer two heavier versions in the same design, made from 100 % organic Fairtrade cotton and weighing 750 g/m² and 800 g/m² respectively.

For an especially luxurious bathroom ambience, customers can also choose between a simple plain bath mat without a border and a premium bath mat featuring two all-round raised-and-recessed stripes and a substantial weight of 860 g/m².

Bathrobes

Our towelling range is completed by soft and comfortable bathrobes in a timeless shawl-collar design. Three standard material options are available: a plush terry bathrobe made from 100 % cotton (400 g/m²), a luxurious cotton velour quality (420 g/m²), and a lightweight, durable and quick-drying double-faced construction featuring 60 % polyester on the outer side and 40 % cotton on the inner side.

All of our towelling products can be fitted with the latest RFID transponder technology on request. Alternatively, they can be individually manufactured and colour-customised according to specific customer requirements.

Find out more at: dibellatextiles.com/en/terry-toweling

Expert Interview

ANSWERING THE KEY QUESTIONS ABOUT TERRY TOWELLING

To ensure that we always provide the very best towelling textiles, we continuously work on improving our products. Responsibility for product development lies with Martijn Witteveen. A qualified textile engineer, he is a recognised industry expert with many years of experience. His core expertise includes extensive knowledge of processing procedures within industrial textile care. In this interview, he explains why Dibella textiles produce less lint, why seams do not fail at the typical stress points, and how energy can be saved during the drying process.

Martijn Witteveen

Wash: What defines a high-quality towelling product?

Martijn Witteveen: A towelling product for textile service operations must deliver excellent performance in use while also meeting high standards in appearance and feel. Regular industrial laundering should neither be visible nor noticeable in the product. In addition, towelling must fulfil its intended purpose: towels and bathrobes should be soft, fluffy and highly absorbent. Bathmats, on the other hand, need to provide insulation from cold flooring, offer slip resistance and maintain their resilience under pressure.

Wash: The feel of the fabric is particularly important. How does Dibella achieve this?

Martijn Witteveen: For towels and bathrobes, we primarily use terry towelling made from single-ply pile yarns. The surface has a loose, open and voluminous loop structure, which provides excellent moisture absorption.

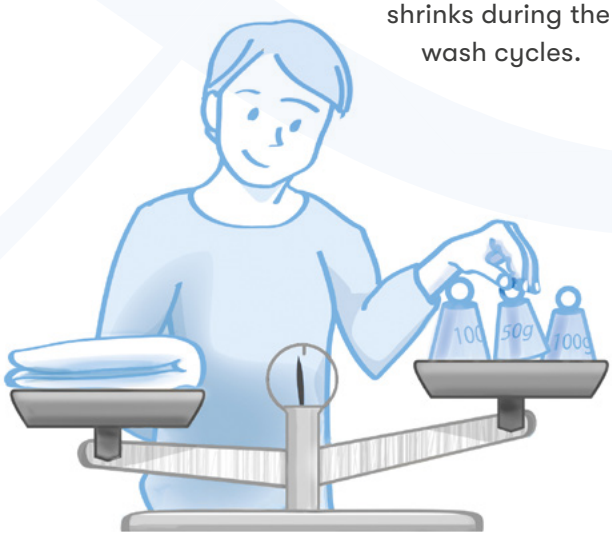
Single-ply terry

Twisted terry

Bathmats, by contrast, are produced from ring-spun terry towelling, whose loops are made from tightly twisted yarns. This creates a durable, absorbent quality with a stable loop structure and excellent resilience. In addition, the characteristically high fabric weight gives twisted terry good stability on tiled floors while creating a smooth and refined appearance.

Wash: How does Dibella ensure the dimensional stability of its towelling products?

Martijn Witteveen: Most towelling products are specified in standard dimensions. However, these dimensions do not always indicate whether they refer to a new, unwashed product or to an item after laundering. This distinction is important because cotton naturally shrinks during the first wash cycles.



To ensure that our customers can rely on consistent, stable dimensions, we pre-tumble all our products as standard to minimise initial shrinkage.

Wash: Why is the weight of a towel such an important criterion for textile service companies?

Martijn Witteveen: We differentiate between the item weight and the fabric weight. The item weight serves as the basis for rental price calculations within the textile service industry and is typically specified for new goods. This value should remain virtually unchanged throughout the product's lifecycle, whether in new or laundered condition, providing our customers with a reliable basis for calculation.

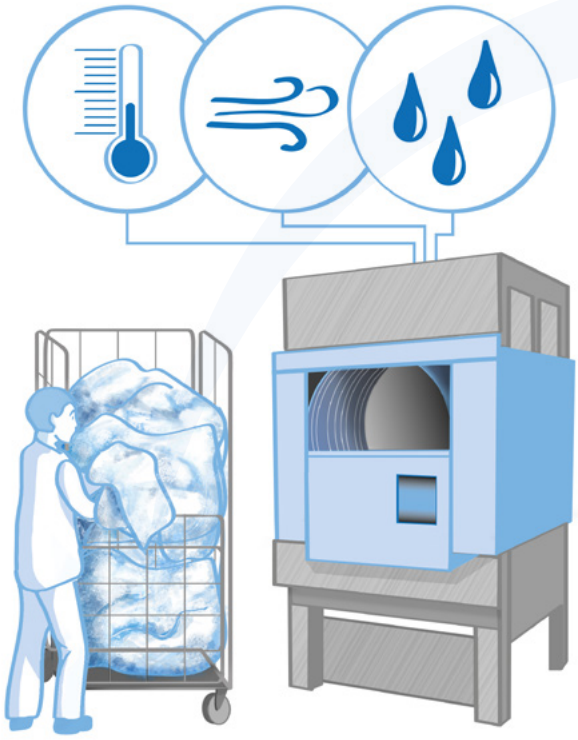
The fabric weight (weight per square metre), on the other hand, is not a constant value. In lower-quality products especially, it can change significantly when a towel shrinks substantially during laundering. This results in an inconsistent linen pool, which becomes particularly noticeable when new products are added to an existing pool. The consequence can be customer complaints and dissatisfaction.

Wash: How does Dibella ensure loop durability in its towelling products?

Martijn Witteveen: Loop durability is an indicator of a pile loop's resistance to being pulled out by mechanical stress. In our laboratory, we test this according to DIN EN 15598.

> During the test, force is applied to a loop until it loosens and causes a row of consecutive loops to straighten along a defined length.

We have established a minimum performance standard for all our towelling qualities, ensuring their long-term durability and stability.



Wash: How does Dibella ensure the absorbency of its products?

Martijn Witteveen: Yes, there is also a recognised test procedure for absorbency, which we apply consistently. Every production batch undergoes the water drop test in accordance with the international AATCC 79 standard. A drop of water is placed on a fabric sample, and the time taken for it to penetrate the textile is measured.

For our towelling products, we specify a maximum absorption time of two seconds to ensure optimum moisture uptake during use. We achieve this excellent result because our manufacturing processes are designed to maximise the absorbency of the towelling fabric. Elsewhere in the market, however, absorption times of 10 to 30 seconds are not uncommon, as the handle is often artificially enhanced through excessive use of fabric softeners.

The silicones contained in these softeners make the textile hydrophobic rather than genuinely soft over the long term, as they are gradually washed out over time.

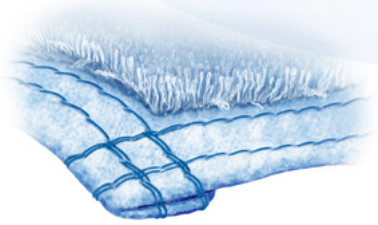
We deliberately avoid the use of fabric softeners. Lasting softness is achieved through high-quality fibres and gentle drying processes.

Wash: How does Dibella prevent fibres from escaping the fabric and causing lint and dust formation?

Martijn Witteveen: Lint and fluff can create serious challenges in industrial laundries and negatively affect the visual appearance of the textiles. For this reason, we only use cotton with an average fibre length of 28–30 mm.

The subsequent ring-spinning process produces fine yarns whose hairiness is further reduced through a controlled airflow. Because the fibres are firmly bound within the yarn structure, these compact yarns exhibit very low linting tendencies.

In addition, our towelling fabrics are gently dried at moderate temperatures after the wet-processing stages, such as bleaching and dyeing, helping to preserve fibre strength. However, the textile service provider ultimately has the greatest influence on maintaining softness through the drying process. The optimum residual moisture content is between 4 and 6 per cent. When this level is maintained, the textiles remain pleasantly soft while energy consumption is reduced, as shorter drying times require less energy.



Wash: To what extent does seam construction contribute to product durability?

Martijn Witteveen: During industrial washing and drying processes, the seams of a towel are exposed to considerable stress and may eventually begin to fail. If a product is manufactured with only a single seam, a damaged seam often means the end of the article's service life.

To maximise the durability of our towelling products, all hems are therefore finished with double stitching. Even if one stitching thread should come loose, the second seam remains intact. In a sense, double stitching provides an additional layer of security, ensuring the product remains serviceable for longer.

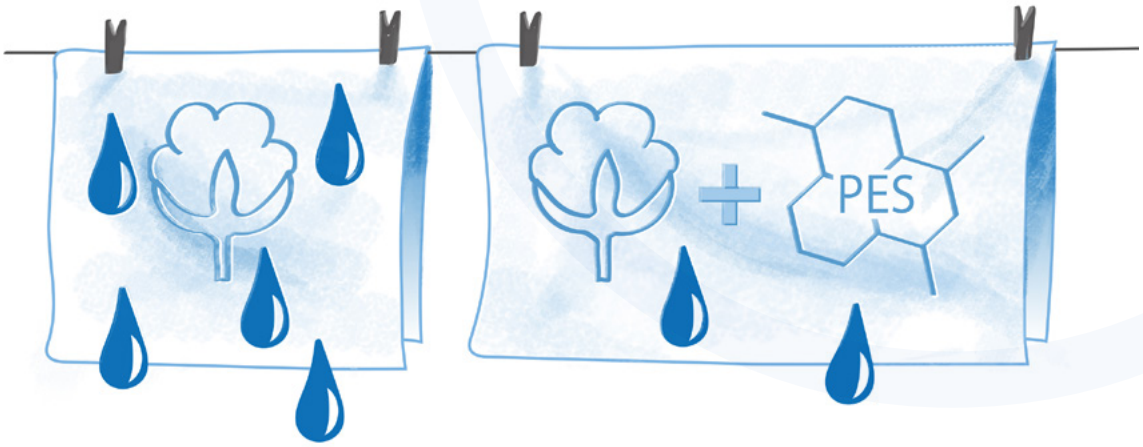
Wash: The European Climate Law aims to reduce carbon dioxide (CO_2) emissions, including those generated by heat production in textile service operations. What measures is Dibella taking to improve the drying efficiency of towelling products?

Martijn Witteveen: We approach this challenge from two angles. Firstly, our range includes towels, bathmats and bathrobes made from cotton-polyester blends.

> The synthetic fibre content reduces drying times and, consequently, lowers process-related CO_2 emissions.

Secondly, we further reduce emissions through the use of recycled polyester. When assessed using the ReCiPe methodology, the CO_2 equivalent of recycled polyester is almost four times lower than that of virgin polyester. This has a very positive effect on the product's carbon footprint.

[1] *National Institute for Public Health and the Environment, BA Bilthoven: ReCiPe 2016 - A harmonized life cycle impact assessment method at midpoint and endpoint level*



Wash: Why does Dibella place such great importance on certifying its towelling range with recognised sustainability labels?

Martijn Witteveen: Every Dibella towelling product meets high standards for environmentally responsible and socially sustainable production. We verify this through credible certifications such as OEKO-TEX® MADE IN GREEN, the Green Button, GOTS and Fairtrade.

These certifications underline our belief that quality is inseparable from technical expertise, rigorous quality control and a responsible supply chain.

Wash: Can customers also have colours and qualities produced according to their individual requirements?

Martijn Witteveen: Absolutely. Together with our manufacturing partners, we develop bespoke product ranges tailored to customer requirements. These can include special sizes, colours and material blends, unique designs, specific fabric weights, woven-in features or customised branding and labels.

Wash: Thank you for these valuable insights into the quality criteria behind our towelling range.

Now Available: EU Ecolabel Certification for Our Towelling Range

Our towelling products are now also certified in accordance with the EU Ecolabel.

The official environmental label of the European Union identifies products and services that have a lower environmental impact throughout their life cycle compared with comparable alternatives. It certifies compliance with stringent environmental criteria, including low toxicity and high biodegradability, while also recognising demanding performance standards and outstanding product quality.

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