Demand for lightweight fabrics is growing rapidly, both within the sport and outdoor industries. The challenge for manufacturers is to produce lighter and lighter fabrics and finished goods without sacrificing the performance benefits to which people have become accustomed. Properties such as breathability and durability must always be available, even in the lightest of fabrics.

The lighter the better



Fabric manufacturers have experienced increased demand despite the difficult economic conditions.
adidas

Taiwan-based Everest Textile now claims to be making the lightest and finest fabric in the world at just 22g/m^2. Introduced in August, its development was part of the company's 'Less is More' initiative. The campaign is designed to promote 'green innovation', reduce the use of natural resources and to produce 'zero emission' products. "Our vision is to be a paragon of an eco-enterprise," says a company spokesperson.

The new ultra lightweight, 10 denier fabric is made from 100% nylon and is described as a high-density, low-weight fabric with a "silky touch". "It is paper thin," says the company spokesperson, who adds that it also offers good memory properties so that it recovers its original shape easily and quickly, even in situations where it becomes wrinkled.

Furthermore, it is said to be durable, water-repellent, windproof and easy to pack. It can be used for a range of end-uses including sportswear, outerwear and casual wear. The company believes it will be particularly popular for the forthcoming spring-summer golf season. Golf is becoming increasingly popular across the world, but particularly in China and other Asian countries, to which Everest has very easy access.

In order to produce such a fine fabric, the weaving process is very slow and expensive, according to the company. However, in addition to the technical benefits it offers, the way it is produced is also likely to win approval from consumers. "The production process of Everest's ultra lightweight [fabric] can effectively save lots of energy, especially water," says the company spokesperson.

Founded in 1988, Everest Textile claims to be the only vertically-integrated textile company in

Taiwan specialising in yarn spinning, twisting, weaving, dyeing, finishing, printing, and coating/laminating and after treatment. It manufactures filament and staple textiles with an emphasis on technical properties and fashion styling.

Its textiles are used by major sport, outdoor and lifestyle brands such as Nike, adidas, Puma, Patagonia, Spyder, The North Face and Columbia Sportswear. It has production plants in Taiwan, Shanghai and Bangkok, employing more than 3,000 people, and has the capacity to produce more than 120 million yards of fabric each year.

The company is constantly investing in research and development and says it is "continually developing key technologies, raw materials, and various new products (functional masterbatches, textured yarns, membranes, and textiles), so we can quickly manufacture products in mass and bring them to market". The new ultralight fabric has been developed in response to what it says is a massive demand for lightweight functional products for both sports and outdoor wear.

Stepping into the Light

Italian circular knit fabric producer Maglificio Ripa has also been focusing on the production of lightweight fabrics. Its Light range of 44-gauge fabrics can be used for sportswear, beachwear and fashion. According to the company, the way its fabrics are constructed "permits the material to slip, to cling perfectly to the body and at the same time guarantee a high degree of comfort to whoever wears it".

Its Light fabrics are also said to be quick-drying and offer four-way stretch, acting almost like a second skin, Maglificio Ripa claims. "It has a natural look, is non-allergic and is resistant to rubbing and pilling," says a spokesperson for the company. Among the fabric range is its Light 2050 fabric, which has been plasma treated to offer better movement in water. As a result, it can be used in competition or simply during casual trips to the beach. The company's Technopower Light 2050 also incorporates Xtra-Life Lycra which is chlorine and sand resistant and helps retain its shape more effectively.

Meanwhile, Maglificio Ripa's Light Cupro fabric is said to offer a soft feel and excellent fit by adding natural fibres such as silk and cashmere to the fabric mix, while other fabrics in the range contain bamboo fibres and fibres made from milk protein. Its Light fabrics are available in eight standard colours but can be produced in various colours and designs on request.

"Light materials numbers 2050 and 2056 are the top for versatility, look and performance," says the company spokesperson, who goes on to say that they come "in glossy versions for elegant fashions, combining with Microfibre and MicroModal for the soft feel and perfect wearability in lingerie and outerwear clothing, and play a leading role in beachwear and sportswear".



Everest claims to have produced the lightest and finest fabric in the world.

Everest Textile

According to the company, the Light range is continually expanding and "has been adopted by the world of fashion". "The Light family now satisfies all the needs in the sector: lingerie, swimming and sport, producing fine materials, renewed colour cards and the use of technological fibres which truly satisfy and allow athletes of all types of sports to wear clothes which contribute to records and sporting victories," the company spokesperson explains.

Despite the difficult conditions the global textile industry has been facing since the financial downturn began, the company has experienced increased demand for its Light fabrics this year. These fabrics are also starting to account for a larger proportion of its product mix as consumer demand for ultralight goods continues to rise.



Maglificio Ripa says its Light fabric range is lightweight, technical and stylish.

Maglificio Ripa

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