

# EnerSave<sup>®</sup>



## Perlon<sup>®</sup> – The Filament Company

Perlon<sup>®</sup> – The Filament Company – is an innovative, global group of companies specialized in the manufacture of synthetic filaments. Perlon<sup>®</sup> generates annual sales of more than 140 million euros, employs about 840 people and has a production capacity of 23,000 tons. We operate from locations in Germany, in the USA and in China.

Through our technical expertise and strength in innovation we develop premium quality products for our customers. The comprehensive product portfolio is based on a variety of raw materials. In line with the intended application, these are modified and processed into high quality, application-specific filaments. The consistent high quality of our products sets worldwide benchmarks.

## EnerSave<sup>®</sup> – save energy smoothly

The selection of the monofilament in a forming fabric bears the potential of reducing process costs. The power consumption of the drive motors is determined by the energy intake of the sieve which in turn is linked directly with the friction between the sieve and the (ceramic) dewatering element of the paper machine.

Perlon<sup>®</sup> has developed various weft materials for use on the paper machine side which reduces the frictional coefficient of the forming fabric on the ceramic dewatering element. These products are marketed under the brand name EnerSave<sup>®</sup> (see Fig. 1).

6\*\*GQ/GE/GM EnerSave<sup>®</sup> types are polyester-based monofilaments which have been specially developed for use as single weft material on the machine side. Depending on design, these can lessen the energy loss due to friction by approx. 10%. EnerSave<sup>®</sup> types are characterised by very good resistance to abrasion and extraordinarily good dimensional stability in damp environments. EnerSave<sup>®</sup> types also reduces the so-called edge curling of sieve fabrics which has a positive impact on the productivity of forming fabrics and paper manufacturers.

The 8\*\*ZG EnerSave<sup>®</sup> is a modified polyamide which has been specially developed for use in alternate weft in combination with PET or PBT. Depending on design, it can reduce the energy loss of sieves due to friction by 5 %.

The frictional force of forming fabrics against ceramic has been investigated in our ultra-modern Einlehner AT2000 abrasion and friction test facility – with impressive results (see Fig. 2).

The laboratory results have ultimately been confirmed through deployment on the paper machine.

## Technical information

Fig. 1 – Performance of forming fabrics using EnerSave<sup>®</sup> materials in respect of lifetime, energy consumption and dimensional stability

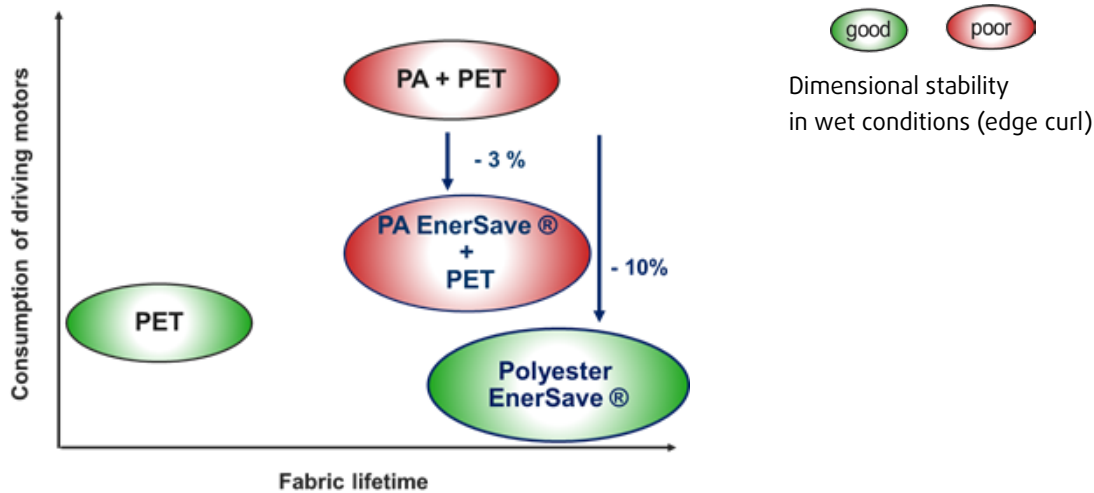
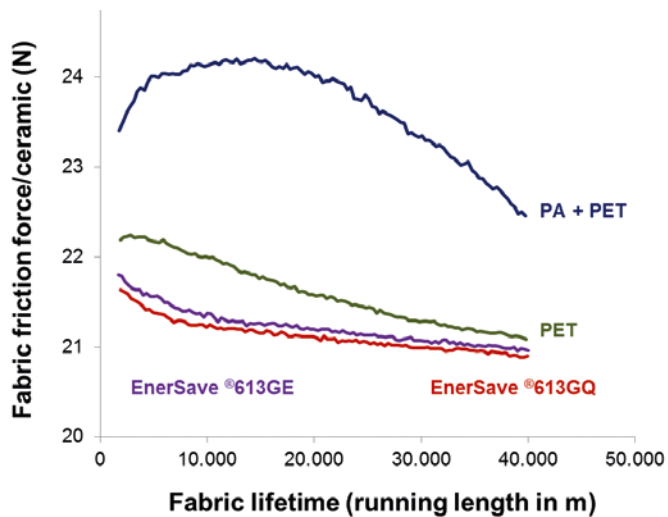


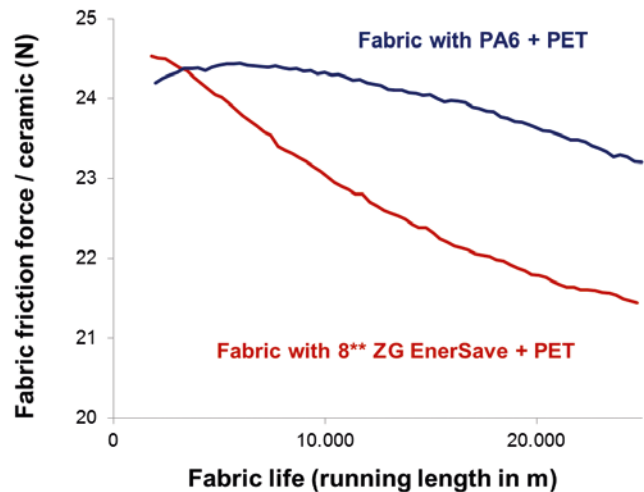
Fig. 2 a/b – Frictional force of forming fabrics using various monofilaments against ceramic dewatering elements over time

### Polyester-based EnerSave<sup>®</sup>



2a – Polyester-based EnerSave<sup>®</sup> monofilaments 6\*\*GQ/GE provide a steady state performance and achieve energy saving from the very beginning of the lifetime

### Polyamide-based EnerSave<sup>®</sup>



2b – PA 6 based EnerSave<sup>®</sup> 8\*\*ZG monofilaments reduce the energy consumption

**Brand related products:** 6\*\* GE, GM, GQ / 8\*\* CG, ZG / 9\*\* HG, WQ, YG

This product information has been compiled to the best of our knowledge and with the greatest of care. We cannot, however, assume any liability for the correctness, completeness or currentness of the contents. Depending on diameter and production technique the technical parameters and the behaviour of the monofilament can vary.