

# DuraFil<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 150 million euros, employs about 850 people and has a production capacity of 23,000 tons. We operate from locations in Germany, Poland, 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.

## DuraFil<sup>®</sup> is particularly long-lasting

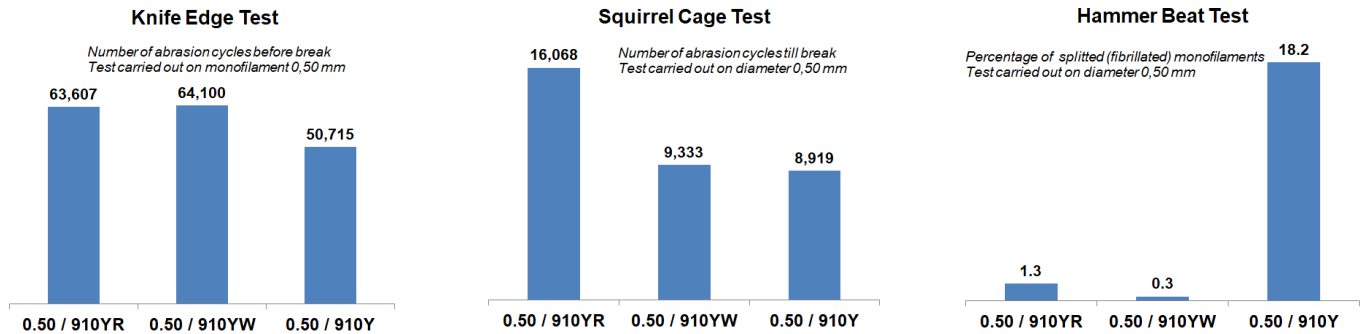
Modern technical fabrics are subjected to ever higher stresses due to constantly increasing demands – regardless if it is for use in the paper machine, in filtration, with nonwovens or other applications. On the one hand, higher production speeds and the use of aggressive fillers lead to severe abrasion forces. On the other hand, the use of adhesives in the nonwoven area and recycled stock in the paper machine clothing as well as clogging of filter media over time require intensive high pressure cleaning. Nevertheless fabrics have to have the longest possible service life. Monofilaments are needed to withstand these challenging conditions. For this purpose Perlon<sup>®</sup> has developed a family of PET monofilaments especially to successfully resist the aggressive process conditions on a sustainable and consistent basis.

## DuraFil<sup>®</sup> monofilament – especially durable

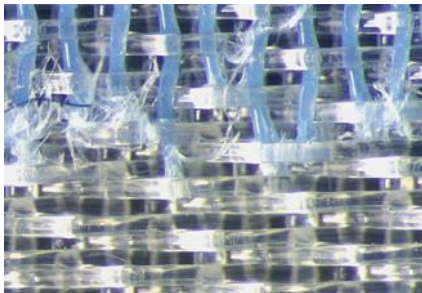
These Perlon<sup>®</sup> monofilaments are marketed under the brand name DuraFil<sup>®</sup>. They have an exceptional mechanical resistance and can withstand the high stresses in numerous areas of application. The use of DuraFil<sup>®</sup> monofilament helps to prolong the service life of high demand quality fabrics.

Besides its very good abrasion resistance DuraFil<sup>®</sup> type 9\*\*YR: behaves outstanding due to an exceptional resistance to high pressure cleaning. DuraFil<sup>®</sup> type 9\*\*YW has very good fibrillation resistance and is especially suitable for applications where pressure resistance is of key importance. The high abrasion resistance of the DuraFil<sup>®</sup> monofilament types Y, YR and YW in the diameter 0.50 mm has been confirmed in a scuffing test (knife edge and squirrel cage) as well as in the fibrillation test (hammer blow test).

## Characteristics of forming fabrics when using DuraFil® monofilaments

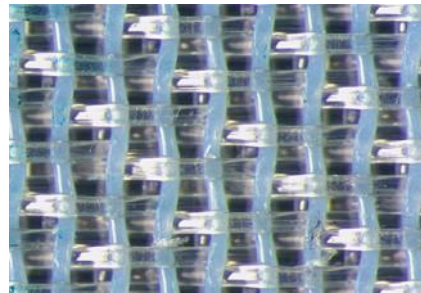


We have tested the high pressure cleaning resistance of a forming fabric with monofilaments from DuraFil® in comparison with standard PET. While the standard monofilaments were completely destroyed during the test, fabrics with the DuraFil® monofilaments exhibited no damage at all under identical test conditions. This confirms the outstanding behaviour of DuraFil® even under difficult conditions.



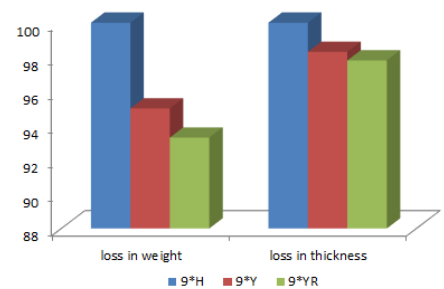
### High pressure cleaning test

Forming fabric from standard PET monofilament (blue threads). The monofilaments exhibit the severest damage to the point of break-up.



### High pressure cleaning test

Forming fabric from DuraFil® monofilament (blue threads). The monofilaments exhibit no damage whatever.



The abrasion resistance of forming fabrics has been tested against a ceramic cylinder in a CaCO<sub>3</sub> suspension. The weight and calliper loss of the sieve manufactured from DuraFil® Y or YR respectively was substantially less compared to standard PET 9\*\*H.

**Brand related products:** 7\*\*VY, YY / 8\*\*Y / 9\*\*Y, HY, YR, YW

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.