

# FireRetard<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.

## FireRetard<sup>®</sup> leaves nothing to chance

Perlon<sup>®</sup> is your proficient partner in the development of flame protection solutions for polyester and polyolefin monofilaments. By dosing with fire retardants during the extrusion process, permanent flame resistance is achieved over the entire lifetime of the FireRetard<sup>®</sup> monofilament. The polymers PPS and PEEK have polymer-based flame resistance. Additional impregnation is not necessary. Our product range of flame resistant monofilaments covers both round diameters as well as various profiles from natural colours to spun dyed. FireRetard<sup>®</sup> is also available halogen-free.

The FireRetard<sup>®</sup> monofilaments are qualified in accordance with different international standards such as UL94 or VW1. The results are based on two fire tests: UL 94 and LOI to EN ISO 4589-1. Perlon<sup>®</sup> produces the flame retardant monofilament to QualiFil standard for industrial textiles.

## The advantages at a glance

- Very high flame retardance
- Very low smoke development
- Permanent flame protection
- Individual solutions possible by adjusting the flame retardant characteristic
- Halogen-free
- No post-treatment of the end product necessary
- Well-known good mechanical properties of PET
- Low and high shrink possible
- Various colours on request
- Diameter range, depending of polymer, of 0.055 mm to 2.00 mm
- Basis polymers PET, PP, PPS and PEEK

## Applications

	Automobile	Hoses, cable protection, interior
	Public transport	Hoses, insulation, seat design
	Aircraft industry	Hoses, insulation, seat design
	Textile industry	Home textiles, office furniture, carpet, spacer textiles

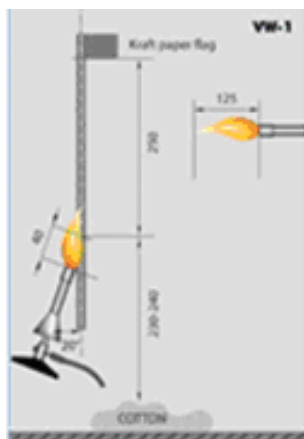
## Technical specifications

Our flexible processes render various product types possible with different characteristics:

Material	LOI-Value* [%O2]
Cotton	18.2
PP	18.6
PET	21 – 25
PA	21 – 28
Wool	25
Kevlar	29
PVC	35
PEEK	37 – 39
PPS	> 40
FireRetard®	30 – 40 the flame retardant characteristics are adjustable

\*Data from literature and / or from raw material supplier/ FireRetard on the basis of analysis / Variation between polymer and monofilament may possible

Monofilament	9xxN	9xxWN
Material	FireRetard®	FireRetard®
Diameter (mm)	0.25	0.25
UL94/3.2mm	V0	V2
VW-1 (UL1581)	☆☆	☆☆
Fire class Fire Standard classification (FMVS SS 302) braided sleeve	B	B

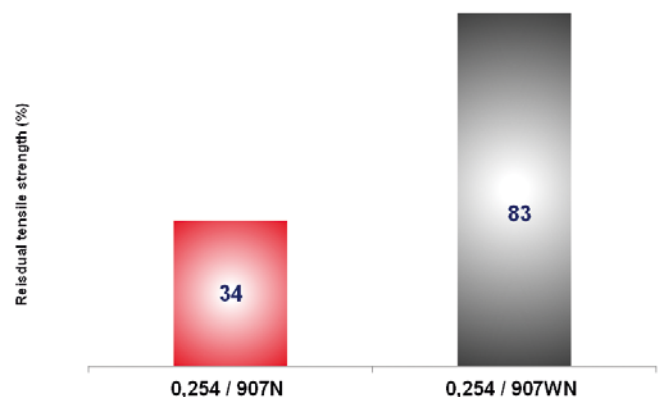


VW-1 fire test source:  
 Techflex



UL94 fire test source:  
 Clariant

Residual strength after exposure 7 days @158°C



Comparison of residual strength after dry heat treatment of the FireRetard® types 9xxN and 9xxWN

**Brand related products:** 9\*\* N, QN, WN, YN / M870 / 8\*\*E

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.