## **High-Quality Monofilaments**





# Flame retardant monofilament





### Perlon® - The Filament Company

Perlon® - The Filament Company - is an innovative and global group of companies specialising in the production of synthetic filaments. We produce at sites in Germany, Poland, China, India and the USA. We offer an extremely diverse product portfolio for almost every technical application. We are constantly creating new solutions for unique products - Our Engineering. Your success.

### FireRetard® leaves nothing to chance

Perlon® is your proficient partner in the development of inherent flame retardant 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® monofilament. The polymers PPS and PEEK have polymer-based flame resistance. An additional finish 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® is also available halogen-free.

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

### The advantages at a glance

- Inherent 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
- Low and high shrink adjustable
- Customized colours on request
- Diameter range, depending on polymer, of 0,055 mm to 2.00 mm
- Base polymers PET, PP, PPS and PEEK



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### **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	

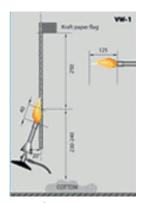
### **Technical specifications**

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

Material	LOI-Value* [%02]	
Cotton	18.2	
PP	18.6	
Polyester	20 - 21	
PA	20 - 21.5	
Wool	25	
Kevlar	29	
PEEK	35	
PVC	37 - 39	
PPS	> 40	
FireRetard®	30 - 40 the flame retardant characteristics are adjustable	

Monofilament	9** N	9** WN
Material	FireRetard®	FireRetard®
Diameter (mm)	0.25	0.25
Halogenfree	Yes	No
UL94/3,2mm	20 - 21.5	0.25
VW-1 (UL1581)	**	**
Fire class Fire Standard classification (FMVS SS 302) braided sleeve	В	В

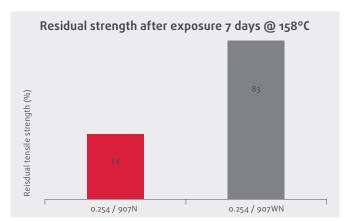
<sup>\*</sup>Data from literature and / or from raw material supplier/ FireRetard® on the basis of analysis / Variation between polymer and monofilament may possible



VW-1 fire test source: Techflex



UL94 fire test source: Clariant



Comparison of residual strength after dry heat treatment of the FireRetard® types 907N and 907WN

#### Brand related products: 9\*\*N, QN, WN, YN / M870 / 4\*\*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 accurary, integrity or timeless of its contents. The technical parameters and the behaviour of the monofilament can vary depending in diameter and production technique.

