

High-Quality Monofilaments



Monofilament with tribological characteristics

HighGrip



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.

Get a grip on your process

HighGrip is a polyester based family of bi-component monofilaments with tailored tribological properties. While the core ensures dimensional stability and specific thermo-mechanical properties, the sheath provides customized dynamic frictional properties. The grip properties achieved are instrumental for process and conveyor belts for example. HighGrip is thus a sustainable and cost-efficient alternative to polyurethane or latex coating post-treatment. The outstanding core/sheath adhesion of bico HighGrip guarantees a long lasting and steady performance of the belts over time. The thickness of the sheath can be adjusted based on the requirements of the application.

A versatile portfolio of products with tailored frictional and thermomechanical (softening point, thermomechanical resistance) properties 7**MR/IR/NR is available.

The advantages of HighGrip at a glance

- Polyester-based monofilament (hydrophobic)
- Cost-efficient alternative to post-production coating
- Sustainable alternative to polyurethane or latex emulsions (no contamination nor waste disposal)
- Customizable thickness of the sheath
- Outstanding core/sheath adhesion
- Ensuring long lasting effect
- Good resistance to high pressure cleaning devices
- Round and profiled yarns available
- Core/sheath or side by side structure available
- Very good textile properties and therefor easy to process
- HighGrip can be woven or knitted

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Textile properties

	710MR	710IR	710NR
Diameter (mm)	0.50	0.55	0.50
Linear density (dtex)	2,515 - 2,595	3,080 - 3,178	2,523 - 2,600
Strength (cN/Tex)	27 - 33	22 - 28	22 - 28
Elongation to failure (%)	36 - 47	40 - 48	37 - 45
Free thermoshrink @180 °C (%)	7.3 - 9.3	7.0 - 9.0	7.3 - 9.3

Grip and thermo-mechanical properties

Type	Sheath softening Ts (°C)	Level of grip	Thermo-mechanical resistance @180°C
710/713 NR (HT)	196 - 208	++++	++++
710/713 IR HT	199 - 202/209 - 214	+++	++
710 MR	196 - 200/208 - 210	++	++
710/713 MR HT	204 - 206/214 - 217	++	+++++
710/713 MR HTS	211 - 216	++	+++++

HT: High temperature (softening point)

HTS: High temperature + heat stabilized



Core/sheath round



Core/sheath flat



Side-by-side flat

Brand related products: 7**IR, MJ, MR, NR, NJ

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 accuracy, integrity or timeliness of its content. The technical parameters and the behaviour of the monofilament can vary depending on diameter and production technique.