Technical Brush Filaments

High Performance Polyamides

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.

Increased Versatility for Demanding Environments

Whilst the mechanical properties of the four main PA types PA 6, PA 6.6, PA 6.10 and PA 6.12 can be engineered through the process of extrusion, their inherent values in terms of heat and chemical resistance as well as moisture absorption are determined by the raw material itself and cannot be changed. The same applies for any additional criteria a filament should fulfil. For this reason, we offer a range of high performance polyamides, created to offer customers filament properties, which meet the requirements of all but the most demanding of applications.

PA 6 FireRetard® →
PA 6 Anti Static →
PA 6 Conductive →
Bilon® →

For more detailed informed see overleaf.

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PA 6 FireRetard®

Most engineering polymers conform to flammability rating UL94 HB (Horizontal Burn). This is the lowest classification for flame retardancy. Our PA 6 FR filaments are manufactured from a specially developed raw material and conform to UL94Vo. This means that burning material will self-extinguish within 10 seconds of removal of a flame and will not drip flaming particles.
Typical applications include brushes used on escalators, lifts and electrical cabling in public buildings.

- Halogen Free
- Available in different colours*
- Standard item:
  0.15 mm and 0.30 mm
- Possible diameter:
  0.15 mm – 0.80 mm
- Certified Vo rating according to UL94
- Certified ISO 4589-2:1999 + A1:2006*

PA 6 Anti Static and Conductive

For applications requiring static control, we offer a range of polyamide based anti static and conductive filaments. Both materials are manufactured from specially formulated raw materials extruded 100 %, which ensure uniformity throughout the filament. Through this, the surface resistance should remain constant for the lifetime of the filament compared to coated or lubricated products. It is important to test suitability for use in the application, in particular regarding mechanical properties, which due to the raw materials used, can be significantly reduced compared to standard polyamide filaments.

PA 6 Anti Static
- Specific Volume resistivity
  10^6 – 10^9 Ohm x cm**
- Dissipative
- Standard in black colour only*
- Standard item: up to Ø 0.60 mm
- Possible diameter:
  0.20 mm – 1.00 mm

PA 6 Conductive
- Specific Volume resistivity
  <103 Ohm x cm**
- Black colour only
- Possible diameter:
  0.10 mm – 1.40 mm

PA 6 Bilon®

Bilon® is a product, which has long been synonymous with roller brushes used in degreasing sections of steel processing lines. The working conditions on these lines subject brushes to a combination of high temperatures, moisture and chemicals, as well mechanical stress. Bilon® is a specially developed polyamide filament, generally supplied with a deep crimp ensuring a uniform surface finish and in a distinctive natural brown colour. Bilon® has a lifetime of up to 4 times longer than regular Polyamide filaments in hot (70 – 75 °C) alkali solutions (pH 7 – 13). Bilon® is also available as an abrasive filament, and as a multifilament (MultiBil®) – see separate documentation.

- UV radiation can lead to color changes
- Standard item: 0.55 mm, crimped
- Possible diameter:
  0.30 mm – 0.60 mm

*Non-standard on request.

** Specific Volume Resistivity
ρ=R · A/l
l = measuring length
A = crosssectional filament area
R = measured volume resistivity

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