



POLYURETHANE PRECISION PROFILES

Dust cover profile for linear electric drives with transverse structure (latching feature)

For almost 30 years, sealing systems from Freudenberg Sealing Technologies have been a benchmark with regard to tightness and service life in rodless pneumatic actuators built by the most renowned European manufacturers.

Freudenberg Sealing Technologies high-performance polyurethane profiles offer outstanding performance through their remarkable wear resistance and other excellent mechanical properties. Thanks to the proprietary manufacturing process, we can design complex profile cross sections with tight tolerances.

TYPICAL APPLICATIONS

Rodless actuators, linear encoders, telescopic covers, electric linear drives, elevator drives, impact energy absorption, wear sensors for bearings.

Application examples:

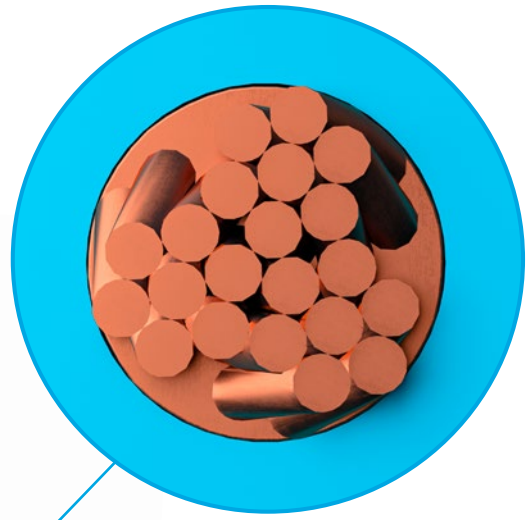
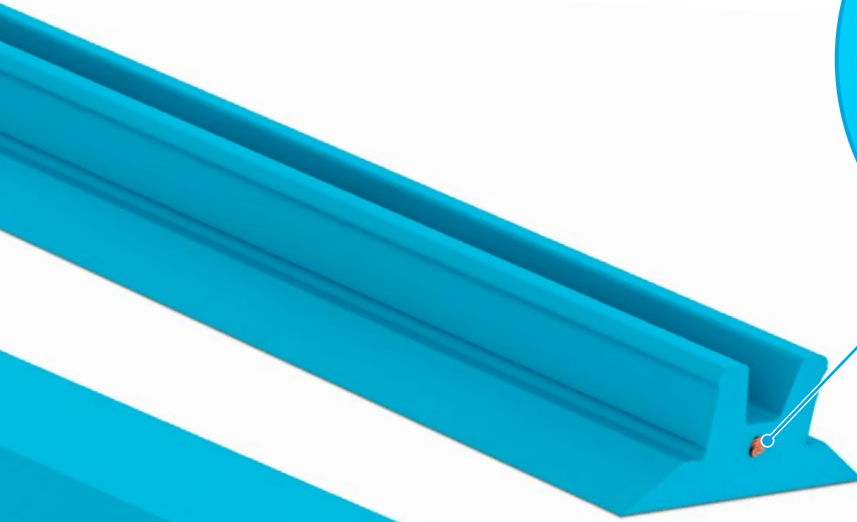
- Sealing the longitudinal slot of rodless pneumatic linear actuators against operating pressure and dirt ingress
- Sealing the longitudinal slot of electric linear actuators against dust, dirt and fluids, thus protecting their costly interiors
- Protecting the glass scale and laser head of linear precision measurement systems in machine tools from being contaminated
- Wiping off metal chips and coolants from the telescopic coverings of machine tools, thus protecting their costly interiors
- Transmitting power in linear actuators by means of embedded cords made of steel or high-performance fibers

VALUES FOR THE CUSTOMER

The properties of Freudenberg Sealing Technologies polyurethane make it possible to design high-precision profiles considerably smaller than ordinary elastomer profiles, delivering **cost-effective, space-saving, robust constructions** with a **long service life** and highly **efficient sealing capabilities**.

Freudenberg Sealing Technologies precision profiles provide superior performance thanks to their **tailor-made design** and proprietary polyurethane compounds:

- Resistance to wear and abrasion even under poor lubrication conditions
- Very good compatibility with a broad range of media
- Enhanced tensile strength compared to elastomers such as NBR, EPDM or HNBR
- Superior sealing performance over a wide range of temperatures: -40°C to 110°C
- Superior resistance to initial crack formation and consecutive crack growth
- Molded surface structures and/or geometrical features in transverse direction
- Reinforcement elements can be integrated such as wire ropes, metal bands, data lines, etc.

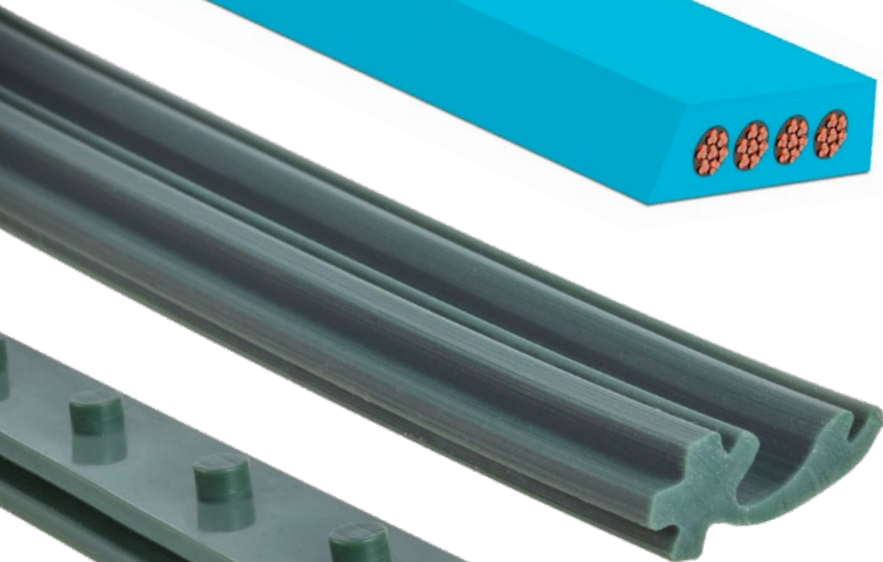


Wire rope reinforcement

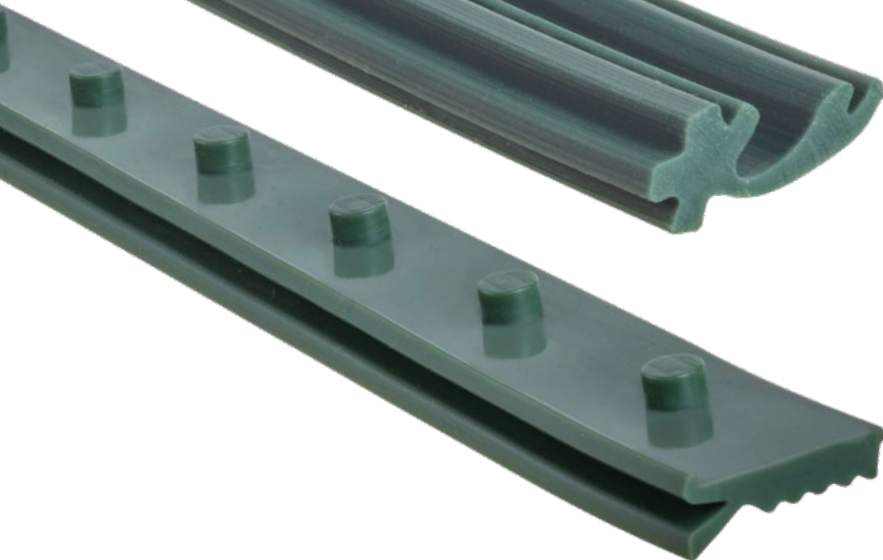
High precision profile for Rodless Pneumatic Actuators with wire rope reinforcement



Snap-in profile with high frequency coil function



Dust sealing zipper profile with extraordinary cross-section



Wiper profile for telescopic covers with snap fastener

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