

**In Good Shape Around the World.
Customized Solutions in High-Performance PTFE Plastics.**



elringklinger
Kunststofftechnik

Engineering Expertise in PTFE. Fuel for Future Solutions – Everywhere.



Chemistry and equipment construction
Chemical resistance is one of many sought-after properties of our products.



Medical and lab technology
Safety due to the best hygienic properties, sterilizability, and medical approvals.



High voltage engineering
With outstanding insulating properties and very good dielectric values, our products provide additional safety.



Mechanical engineering
Good sliding properties and wear resistance of our design and functional solutions are in high demand.

E

lringKlinger Engineered Plastics:

Engineering expertise for innovative, high-performance plastics. With us, you can reach your goal more cost-effectively. Worldwide. If you like, even in outer space.

Our new highly-efficient solid propellant for thrusters brings satellites into the right position with a minimum of fuel consumption. We are always one step ahead, thanks to our unique know-how and over 50 years of experience. As a system partner and technology leader, we develop highly efficient new materials and provide customized engineered solutions and industrial products that set the standard.

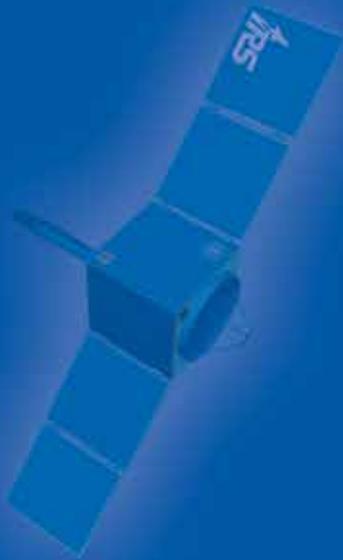
Material for success: High-performance plastics, such as PTFE, PTFE compounds, and PTFE composites, as well as our new thermoplastic material, Moldflon®. From semi-finished to complex finished parts, from standard seals to complete system solutions. From one-off production to large series. Our expertise in a wide range of industries and applications brings you further. We are your partner – everywhere. For new economic dimensions.



Automotive engineering and racing
Extreme stresses, high temperatures, and aggressive media – our products stay in the race.

Food processing technology
Our engineering solutions are media-resistant, compatible with foodstuffs as well as conforming to stringent food industry hygienic needs, including FDA approvals.

Fluid technology
Wherever media are in motion, our high-performance plastic products function reliably and efficiently.



Targeted Innovation.
For Plastics that can do More.



Test rig for rotary shaft seals with PTFE sealing lip for testing various parameters.



Test rig for long-term wear rates of PTFE compounds with various sliding mates.

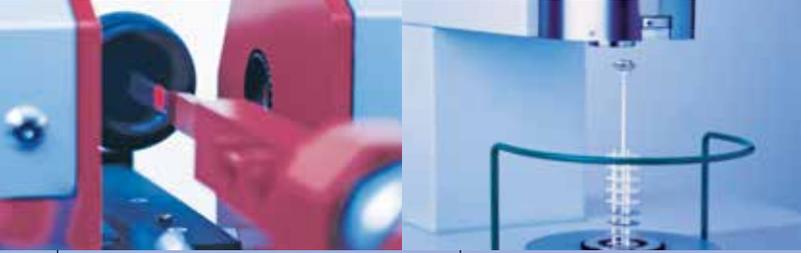


Clean room production for the highest hygienic requirements.



Modern mixing systems for defined mixture ratios.





Particle measurement device for determining the grain size of the granulate – for optimizing material properties and quality assurance.

In order to optimize our PTFE compounds, we use state-of-the-art analysis devices, such as TGA and DSC.

Innovations ensure our head start. With uncompromising quality and exceptional properties, our products meet the toughest requirements in our customer's applications.

Whether high temperatures, pressures, or friction, aggressive media, or oil-free compressed air, food grade compatibility, or medical hygiene requirements – engineered plastics from ElringKlinger deliver what they promise: functional reliability, durability, long life, efficiency, and cost-effectiveness. Our extensive range of services from a single source forms the basis for this:

- in-house R & D and testing lab for materials, products, and systems
- in-house raw material development and compounding
- application-specific compound optimization using organic and inorganic fillers
- all production processes for manufacturing semi-finished goods, such as ram extrusion, compression molding, paste extrusion, and isostatic pressing for minimizing material usage
- product inspection to secure series production

Overcoming Performance Limits: Engineered Solutions Made of PTFE.



Tube module for degassing of liquids in fluid chromatography equipment: tube bundle with large surface area, for effective degassing process.



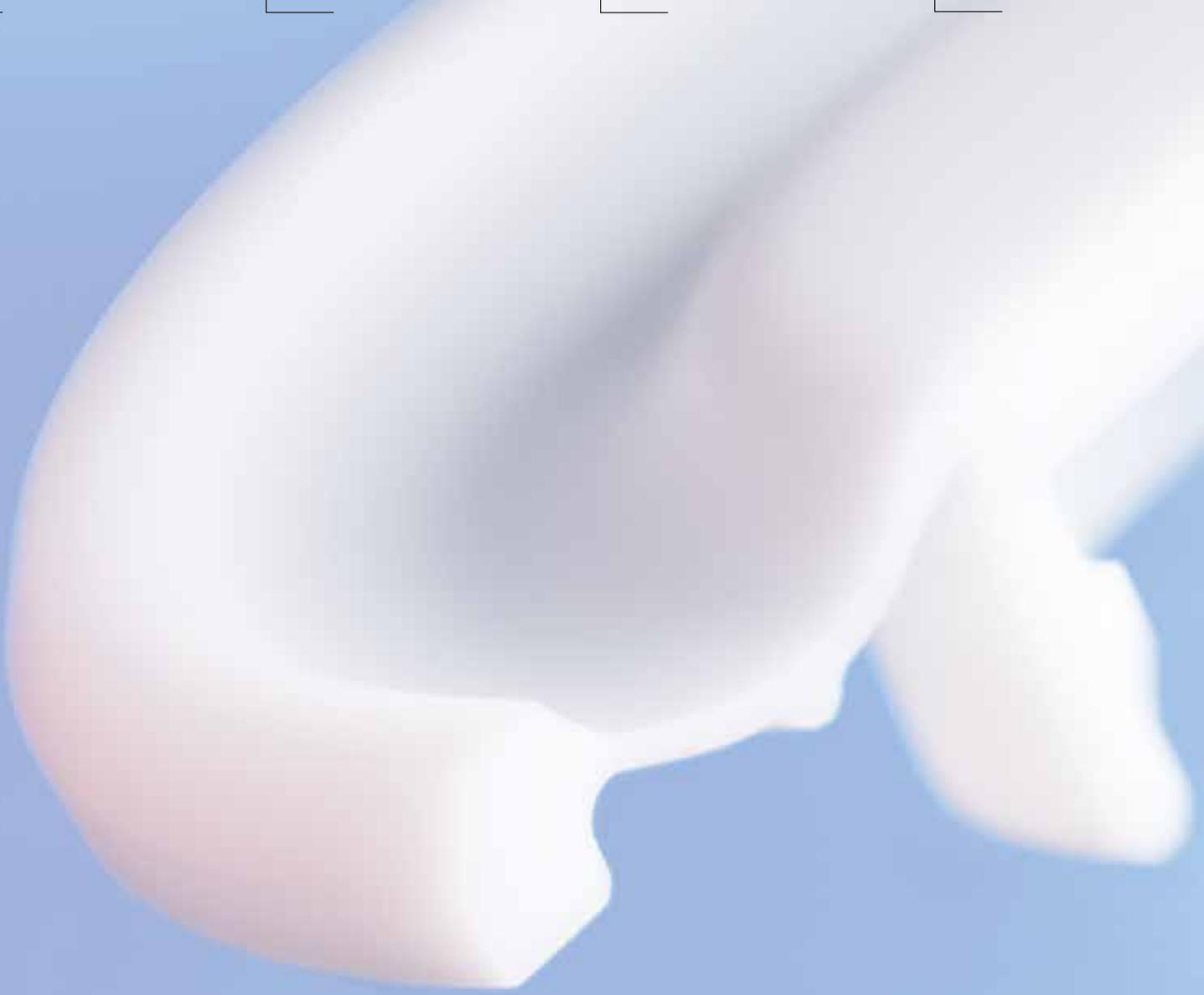
Memory packing for breathing air compressors in the medical field: Minimal friction under dry running conditions and long service life.



Economical and material-saving: Blow molded PTFE protective cap for steering angle sensors in the automotive field.



In complex medical applications, our plastics expertise is 100% reliable – for example, in pump modules for home dialysis.





Rotary shaft seals with PTFE sealing lips for screw compressors: High wear resistance and good sealing in a wide range of seal variants.

PTFE (Polytetrafluoroethylene), the custom-tailored material. We use it to develop technical solutions for many areas of application: seals, guides, designed components, tubings, and semi-finished products. With precisely defined characteristic profiles. For optimal function, maximum performance, and reliability. We provide much more than simply one of the most extensive standard ranges in the world. Our engineering expertise comes to the fore in systems solutions and composite elements, as well as in the customized development of complex, specialized solutions, which only specialists like us can master.

Personal consultation is our top priority. Cutting-edge production processes ensure quality. We utilize the entire spectrum of possibilities. From standard PTFE, to modified PTFE with improved properties, to compounds. These PTFE compounds, with special combinations of fillers and processing methods, expand the limits of loading capacity and open up new areas of application.

Moldflon®

– the New Dimension in PTFE Processing.



Injection molding process

New degrees of freedom in forming allow the implementation of complex component geometries with minimal waste.

Tube extrusion

Thermoplastic production of endless tubes with smooth surfaces, such as for protection tubes in gear boxes for the automotive industry.





Film extrusion

Production of endless films with minimal wall thicknesses of up to 30 µm and homogenous properties, such as for flexible circuit boards in the electrical industry.

Our strength has always been inventiveness. We are particularly proud of Moldflon®. This new material has a composition that is very similar to modified PTFE, but is more inherently stable. In particular:

The thermoplast can be processed from the melt – for example, by injection molding, extrusion processes, or transfer molding. Even complex component geometries can be produced in a single-stage process without time-consuming machining – in large-scale series production. Material savings, reliable processes, and lower costs.

Systems solutions (using Moldflon® compounds, for example) adapted particularly for your application provide new freedom in forming and allow areas of application where other materials fail. Our Moldflon® solutions, such as for the automotive industry, medical technology, photovoltaics, electrical and chemical engineering, meet the highest performance standards in a very cost-effective way.

One of our Most Important Properties: Thinking Ahead. Worldwide.



Germany

- Bietigheim-Bissingen
- Heidenheim



China

- ElringKlinger Engineered
Plastics (Qingdao)
Commercial Co., Ltd.
in Qingdao



Great Britain, Italy, Benelux

- Sales partners



India

- Sales office

Around the world – and beyond –we are the specialist for seals and designed components made of PTFE and other high-performance plastics. As a subsidiary of Elring-Klinger AG, we contribute to more efficiency around the globe, in nearly all industrial areas of application. Over 500 employees share this passion at our German locations of Bietigheim-Bissingen (headquarters), in Heidenheim, and internationally. We are in close contact with our customers everywhere, and provide consulting, engineering, and production know-how from a single source.

With growing force, we are expanding our success globally.

A new production area will double our capacity in Germany in 2009.

We continuously expand our production, especially for processing and industrial manufacturing of products made of Moldflon®. We are further reinforcing our presence in international growth markets.

We are on present in China with our own sales company, and maintain our own sales office in India. Our innovative solutions are in demand globally. Because they overcome previous performance limits. Challenge us.



USA

- *ElringKlinger Engineered
Plastics North America, Inc.
in Buford (GA)*



Take our plastics know-how to the test.

The information provided in this brochure, based upon many years' experience and knowledge, does not claim completeness. No liability is assumed for damage claims on the basis of this information. All parts must be installed by trained and specialized staff. Product range and technical specifications subject to modification. No liability assumed for errata.

elringklinger
Kunststofftechnik

ElringKlinger Kunststofftechnik GmbH | Etzelstraße 10 | D-74321 Bietigheim-Bissingen

Phone +49 7142 583-0 | Fax +49 7142 583-200

Heidenheim Plant | Badenbergsstraße 15 | D-89520 Heidenheim

Phone +49 7321 9641-0 | Fax +49 7321 9641-24

info.ekt@elringklinger.com | www.elringklinger-kunststoff.com



DQS-certified according to ISO/TS 16949 (Reg. no. 002504 TS2/003) | DIN EN ISO 14001 (Reg. no. 002504 UM)