



## Anti-Friction-Coatings



**BECHEM**  
LUBRICATION  
TECHNOLOGY

# A bright idea

This is how the BECHEM product programme presents its anti-friction coatings. Our three special anti-friction coatings BERUCOAT AF, BERUCOAT FX and BERUCOAT AK offer a lot of advantages and individual application possibilities for all industries, especially for bulk material and commodities, metals, elastomers, plastics and leather applications. Of course, these three new BECHEM product series excel by highest quality and the well known high performance of all special solutions offered by BECHEM.

## BECHEM Anti-friction coatings – a smooth solution

Anti-friction coatings are touch dry lubricant solutions which, in their formulation, resemble common industrial varnishes. They contain solid lubricants as pigments, resins as bonding agents as well as solvents. Predominant pigments are MoS<sub>2</sub>, graphite and PTFE. Modern AF coatings meet many specific requirements. Increasingly nano-technologies are used. Besides the selection of individual raw materials the concentration in volume of pigments is important for lubricating efficiency and corrosion protection of the AF-coatings. AF-coatings should preferably be applied by spraying and immersion on thoroughly degreased surfaces. Other methods are possible as well, such as varnish drum method, immersion centrifuges, electrostatic or automatic spraying methods, application by pressure or roller and the various methods being well-known in the industry for drying and hardening processes.

## Thoroughly tested

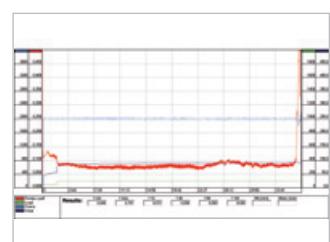
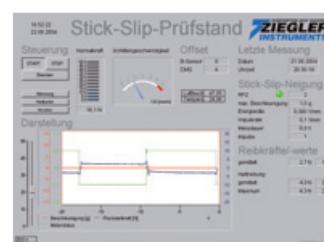
No matter whether friction and wear or anti-squeaking properties have to be determined, we dispose of the most modern test equipment for all fields of application. This offers you the security that the most adequate AF coating for your requirements will be chosen.



Anti-squeak test rig



Vibrational wear test rig



## Dry lubricants vs. liquid lubricants

Properties	Dry Lubricants	Liquid Lubricants
Vacuum application	very good	almost impossible
Low temperature range	good	unfavourable
High temperature range	very good	not suitable
Low speeds	low influence	bad
High speeds	limited	good, hydrodynamic
Flammability	none	in general high
Ionising radiation	good	bad
Environmental risks	very low	difficult to dispose
Contamination	low	creeping

# Our special solutions of anti-friction coatings

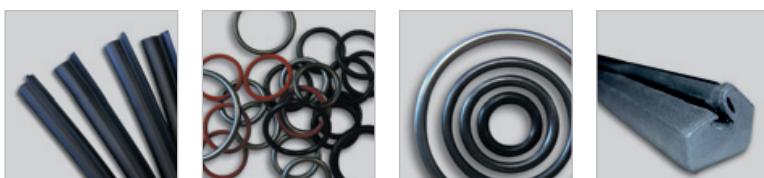
## BERUCOAT AF – reduces friction, allows extreme pressure

Our series Berucoat AF contains friction reducing and extreme pressure anti-friction coatings with excellent corrosion protection and is preferably used on metallic surfaces. BECHEM offers air-drying as well as heat curing systems for a service temperature range up to 450°C. They contain graphite, MoS<sub>2</sub>, PTFE or combinations of solid lubricants for optimal anti-friction properties.



## BERUCOAT FX – flexible and resistant to abrasion

Our BERUCOAT FX types offer excellent anti friction properties with a maximum of separating effect, adherence, durability and abrasion. They are especially suitable for application on flexible elastomer materials like profile seals or o-rings. Besides systems containing solids we use modern nano-technologies in order to meet the continuously increasing demands.



## BERUCOAT AK – invisible and noise damping

BERUCOAT AK are so called anti-squeaking coatings for coating of plastics, leather or foils. Our transparent and nearly invisible qualities based on solids, synthetic wax or nano-technologies care for long-lasting and effective acoustic comfort.



## That'Special!

A tradition we are proud of since 1834. This is still today demonstrated by our trademark: the Rhus Flower. After permanent development BECHEM is today a »Global Player«.

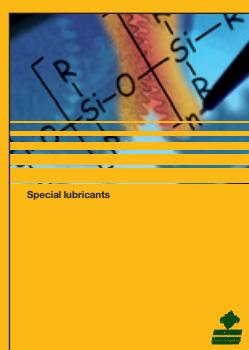
BECHEM special lubricants, industrial lubricants, metal working fluids and solutions for forging technology are based on our extensive experience in the development of special chemistry and latest tribologic knowledge. Our know-how with regard to friction, wear and lubrication always considers our customers' requirements for economic and ecologic optimisation of processes.

We feel obliged to tradition and progress. That'Special!

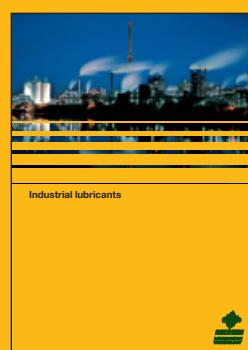
Besides the headquarter in Hagen, BECHEM has two more production sites in Germany, i.e. in Mieste and Kierspe. In addition to that, our worldwide distribution network allows us to develop markets all over the world. With the daughter companies in France, India, Switzerland and China, as well as the Joint Ventures in the USA, South Africa, Sweden and Russia BECHEM shows its international presence.

It is our target to supply our customers with high quality products and to simultaneously meet the valid international standards. The quality of our products is confirmed by the certification according to the automotive standard ISO/TS 16949. The requirement to our standard is guaranteed by the systematically effected internal audits and regular inspections by the RWTÜV at all sites, as well as by audits carried out by our customers.

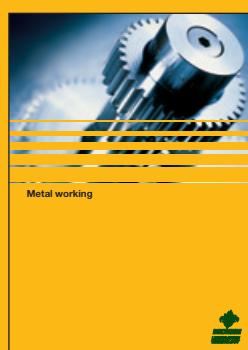
Further information material can be ordered directly with us or is available under [www.bechem.com](http://www.bechem.com).



Special lubricants



Industrial lubricants



Metal working



Forming technology

### Special lubricants

- Low and high temperature lubricants
- Plastic lubrication
- Electrical contact lubricants
- Food grade lubricants
- Valve lubricants
- Anti-Friction-Coatings

### Industrial lubricants

- High performance multipurpose greases
- Heavy duty and high temperature lubricants
- Hydraulic oils
- Gear lubricants
- Green lubricants

### Metal working

- Deep drawing/punching oils
- Coolant lubricants
- Cutting and grinding oils
- Deep drilling oils
- Corrosion protection oils
- Cleaning agents

### Forming technology

- Wire drawing lubricants
- Cold forging oils
- Semi hot/hot forging
- Tube drawing lubricants
- Cold massive forming oils



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LUBRICATION  
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CARL BECHEM GMBH, Weststraße 120, 58089 Hagen, Germany

Telefon +49 2331 935-0, Fax +49 2331 935-1199, E-Mail: [bechem@bechem.de](mailto:bechem@bechem.de), [www.bechem.com](http://www.bechem.com)