

AVANTIN® and BERUCOOL Coolant Lubricants



AVANTIN® and BERUCOOL Coolant Lubricants

are all tailored to particular requirements by their special composition. The modern system structure of our water-miscible and water-soluble coolants can be observed during all operating conditions and delivers optimal performance.

AVANTIN®/BERUCOOL – Speciality Products

BERUCOOL 148 MG

Boric acid-free coolant, especially suitable for magnesium processing, that offers excellent stability and surface results.

AVANTIN® 3309

Coolant with high additive content for the most demanding operations, such as deep drilling and CBN grinding. The product is also used as EP additive in conventional coolants to improve the surfaces and to increase lifetime of tools.

AVANTIN® 480

Boron-free, mineral oil containing coolant for non-ferrous metal processing. Very good foam behaviour even in case of soft water.

BERUCOOL HM

Water-soluble coolant for the machining of hard-metal. Important advantage is the ability to prevent cobalt release.



AVANTIN® – Series 200: boron- and amine-free coolant qualities

AVANTIN® 251

Boron- and amine-free universal quality suitable for machining of cast iron, steel and aluminium. Strong detergents maintain clean machines even in case of high contamination. The product will not deposit calcium soaps even with a water hardness above 20° dH.

AVANTIN® 255

High-performance coolant for aluminium. Excellent surface quality is achieved during reaming operations. Free from boron and amines.

AVANTIN® 261

Boron- and amine-free product with a high mineral oil content for machining of non-ferrous metals (such as copper, brass, aluminium) and low-alloy steels.

AVANTIN® – Series 300: boron- and amine-containing coolant qualities

AVANTIN® 320

Biostable coolant with low mineral oil content for grinding, processing of cast iron and peeling of bright steels.

AVANTIN® 331

Universal biostable coolant for grinding and general cutting of cast iron, steel and aluminium alloy.

AVANTIN® 338

High-performance coolants with EP additives for the most demanding cutting operations (e.g. deep drilling, broaching) on conventional ferrous materials and high-alloy steels.

AVANTIN® 340

Biostable coolant with excellent corrosion protection, suitable for machining of cast iron and conventional steel materials.



AVANTIN® 341

Universal high-performance coolant for cast iron, steel and aluminium.

AVANTIN® 355

High-performance coolant especially designed for processing of aluminium and aluminium alloys. Excellent surfaces are achieved during reaming and deep drilling. Minimum foaming is achieved even in case of high operating pressures.

AVANTIN® 361

Mineral oil containing coolant for cutting of cast, steel and aluminium materials. This universally applicable coolant ensures extremely low foam formation, even in case of very soft water.

AVANTIN® 3332

Mineral oil containing, biostable coolant with excellent rinsing properties for general cutting operations of cast, steel and aluminium materials.

AVANTIN® – Series 400: boron-free coolant qualities

AVANTIN® 400

Mineral oil- and boron-free universal grinding fluid. No foam at water hardnesses of 3-20° dH (50-350 ppm).

AVANTIN® 402

General purpose grinding coolant – free from mineral oil and boron.

AVANTIN® 407

High-performance water-soluble coolant for the most demanding grinding and cutting operations – free from mineral oil and boron.

AVANTIN® 426

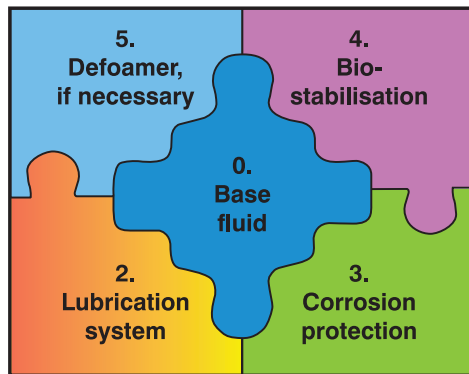
Mineral oil containing, boron free high performance coolant especially for machining of aluminium alloys.



Performance with system and security

Our AVANTIN® coolants are offered in two ways: the classic series, which demonstrates its top performance in many applications and the advanced modular system concept AVANTIN® TWIN CUT. Naturally, all products fulfil the quality standards set by ISO/TS 16949. All our products are accompanied by our comprehensive service, which is called BECHEM COST SAVER MANAGEMENT.

Typical coolant structure



1. Emulsifier system

- All groups of ingredients have a fixed concentration.
- Adjusting the concentration of one ingredient affects all the ingredients.
- Only possible control measures are:
 - Increase or decrease in concentration of all ingredients.
 - Addition of selected additives at a certain concentration.

Modular system structure

AVANTIN® 361 TC High-performance coolant as emulsion base

- High biostability
- Excellent corrosion protection
- Low concentration
- Low top-up quantity
- Cast processing
- Grinding

AVANTIN® AL High-performance Al-service emulsion

- Special lubrication additive
- Highly suitable for aluminium processing
- High miscibility
- Low concentration

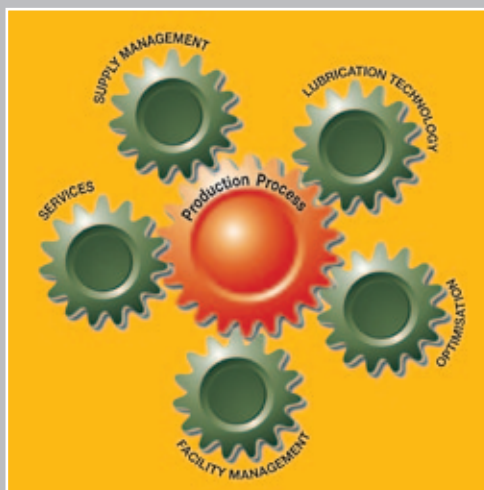
AVANTIN® ST High-performance coolant as service emulsion for steel processing

- High-performance package for the most demanding steel processing
- High miscibility
- Ensures optimal lifetime of tools
- Low concentration

BECHEM COST SAVER MANAGEMENT

Service, recommendations and support with regard to coolant application by:

- Evaluation of actual costs
- Optimised products and processes
- Optimised maintenance and care
- Realisation of the circulation principle
- Optimised information flow



Tomorrow's Technologies - Today!

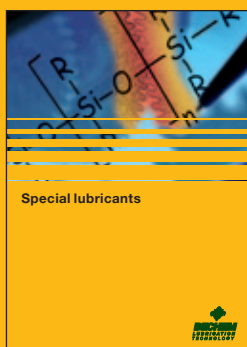
A tradition we are proud of since 1834. This is still today demonstrated by our trademark: the Rhus Flower. After permanent development, BECHEM is today a »Global Player«.

BECHEM special lubricants, industrial lubricants, metal working fluids and solutions for forming technology are based on our extensive experience in the development of special chemistry and on the latest tribologic knowledge. Our know-how with regard to friction, wear and lubrication always takes account of our customers' requirements for economical and ecological optimisation. We feel obliged to tradition and progress.

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

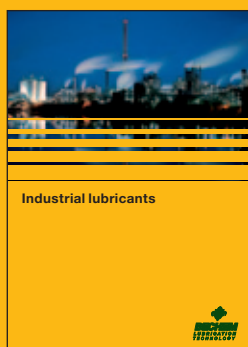
It is our target to supply our customers with high-quality products and to simultaneously meet the corresponding international standards. The quality of our products is guaranteed by our quality management system in accordance with the automotive standard ISO/TS 16949. All our production sites are systematically controlled by internal audits and regular external inspections by the certification association TÜV NORD CERT GmbH. Audits which are regularly carried out by our customers confirm the compliance with our high quality requirements.

Further information material is available either direct from us or at www.bechem.com



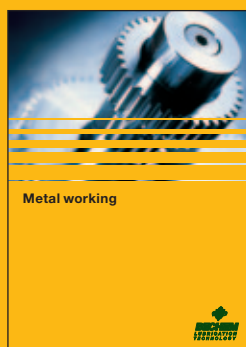
Special lubricants

- 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

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



Forming technology

- Wire drawing lubricants
- Cold forging oils
- Massive forming
- Tube drawing lubricants
- Sheet forming