



BECHEM Avantin
Coolant Lubricants



BECHEM
LUBRICATION
TECHNOLOGY



BECHEM Avantin

Emusfiabile coolants and clear,
mineral-oil free solutions

BECHEM – Lubrication solutions for industry

As the oldest German manufacturer of industrial lubricants, BECHEM is today one of the leading producers of high-quality special lubricants and metal working fluids.

BECHEM products convince by innovative formulations in most different industrial applications – in machining and forming metal working processes, in coating technology or as for-life lubricant in various technical components.

A powerful network of distributors and several national and international production sites ensure that BECHEM products are readily available worldwide.

Tomorrow's technologies. Today.

PICTOGRAMS

APPLICATIONS

- Grinding 
- Drilling 
- Milling 
- Honing 
- Turning 
- Broaching 
- Deep drilling 
- Automotive industry 
- Aviation industry 

PROPERTIES

- High loads 
- Good rinsing performance 
- Low foaming 
- Extended tool life 

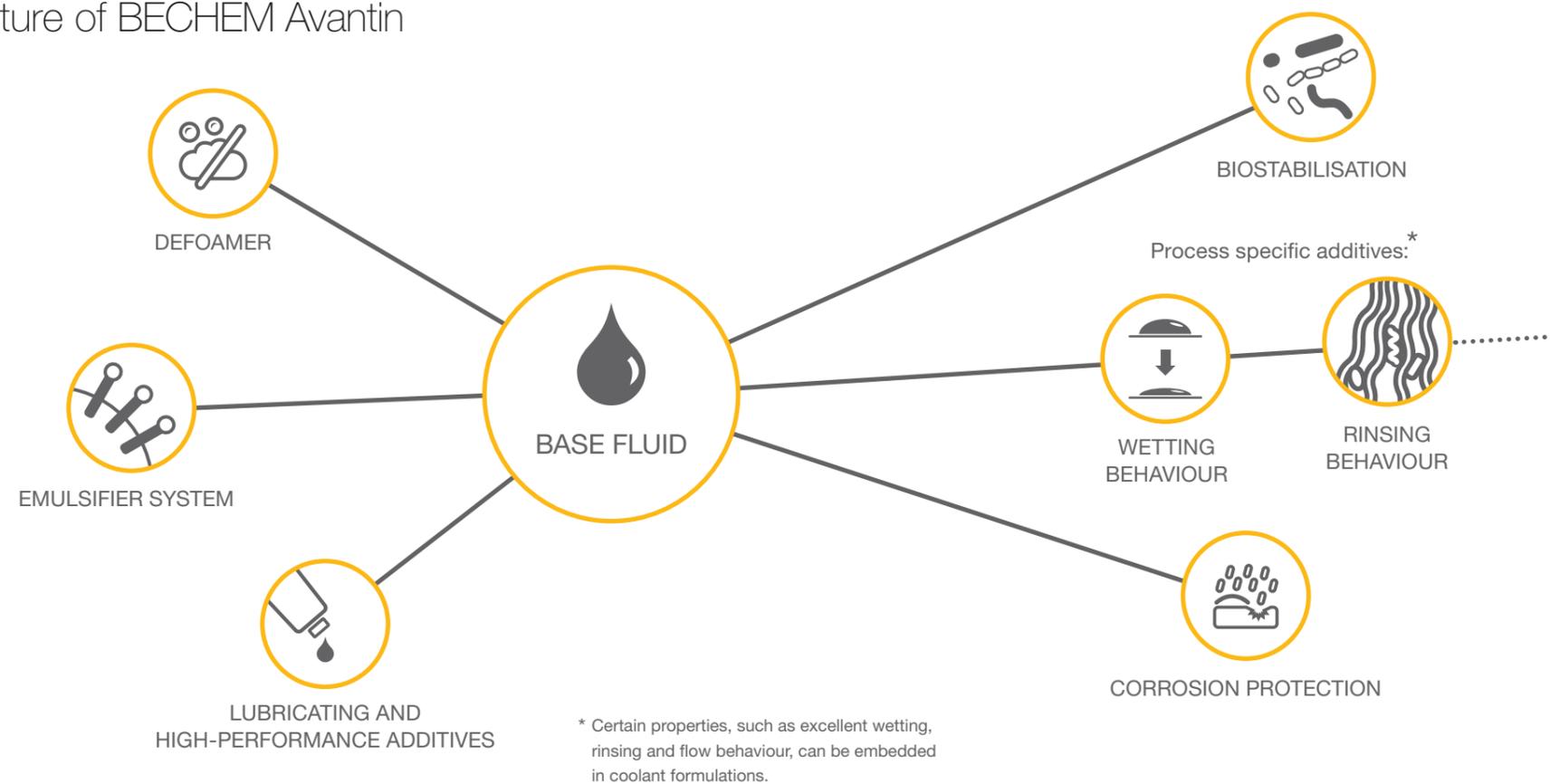
BECHEM Avantin – The classic product with modern system structure



Based on continuous optimisation, the wide range of BECHEM Avantin, which is composed of the 200, 300 and 400 series¹⁾, offers outstanding performance in all machining processes in metal working applications in order to guarantee maximum efficiency.

¹⁾ Series 200: boron- and amine-free coolant qualities
 Series 300: boron- and amine-containing coolant qualities
 Series 400: boron-free coolant qualities

Typical structure of BECHEM Avantin



The adequate solution – BECHEM Avantin

Cutting operations are defined by the complex interaction of work piece, tool, machine and lubricant. In addition, customer requirements with regard to e.g. filtration or industrial safety must be taken into account.

Latest processing systems, innovative alloys and demanding processes have to be supported by the coolant system. Besides aluminium and magnesium alloys those materials which are difficult to machine, such as nickel alloys, different sinter metals as well as molybdenum and

tungsten alloys are of growing importance. Simultaneously, sustainability of products and processes is more and more in the focus of coolant users.

Against this background, BECHEM is regularly analysing their product ranges. In close cooperation with scientific associations and users our products are permanently adjusted to the changing requirements.

» A large range of high-performing and cost-effective process fluids. «



Machining of motor pistons with BECHEM Avantin

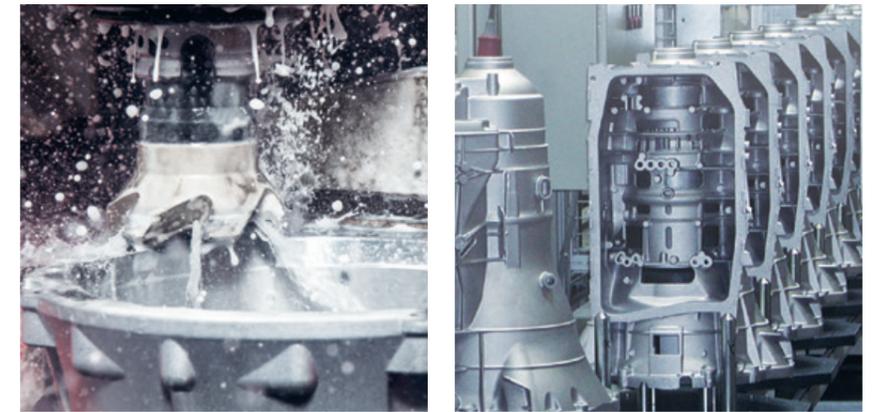
PRODUCT	Materials to be processed	Mineral oil ca. [%]	Amir-free	Boron-free	FAD-free	Lubrication performance	Process / Applications	Properties
BECHEM Avantin 320 	Cast iron, steel	19	-	-	•	◆	Grinding and easy cutting operations	Semi-synthetic formulation, excellent rinsing capacity
BECHEM Avantin 402 	Cast iron, steel	-	-	•	-	◆	General cutting and grinding operations, peeling of bright steel	Fully synthetic formulation with excellent temporary corrosion protection
BECHEM Avantin 403 	Cast iron, steel	-	-	•	•	◆	Grinding and easy cutting operations	Fully synthetic formulation for universal use
BECHEM Avantin 331 	Cast iron, steel	30	-	-	•	◆	General cutting and grinding processes	Universally applicable semi-synthetic formulation, very good rinsing performance
BECHEM Avantin 431 	Cast iron, steel	30	-	•	•	◆	General cutting and grinding operations	Universally applicable semi-synthetic formulation with excellent temporary corrosion protection
BECHEM Avantin 251 	Steel, aluminium	45	•	•	•	◆◆	General cutting and grinding operations	Universal use at high and low water hardness
BECHEM Avantin 341 	Cast iron, alloy steel, aluminium alloys	30	-	-	-	◆◆	General to demanding cutting operations and grinding	Semi-synthetic formulation with excellent rinsing properties and optimised performance
BECHEM Avantin 3332 	Cast iron, alloy steel, aluminium	30	-	-	-	◆◆◆	General to demanding cutting operations and grinding	Semi-synthetic formulation with good rinsing properties and optimised performance
BECHEM Avantin 335 	Cast iron, high-alloy steel	39	-	-	-	◆◆◆	Special cutting operations such as milling, drilling and reaming, e.g. processing of forged parts for automotive construction	Highly suitable for the production of excellent surface qualities with optimised tool life
BECHEM Avantin 423 	Cast iron, high-alloy steel	25	-	•	•	◆◆◆	General to demanding cutting operations and grinding	Universally applicable semi-synthetic formulation, highly additivated, very good rinsing performance
BECHEM Avantin 4015 	Cast iron, steel	-	-	•	•	◆◆◆	General to demanding cutting operations and grinding, thread rolling	Fully synthetic high-performance formulation, excellent rinsing properties
BECHEM Avantin 405 	Cast iron, steel	-	-	•	•	◆◆	General cutting and grinding operations, thread rolling	Fully synthetic high-performance formulation, excellent temporary corrosion protection

All indications and values correspond to latest knowledge and do not represent any product specification.

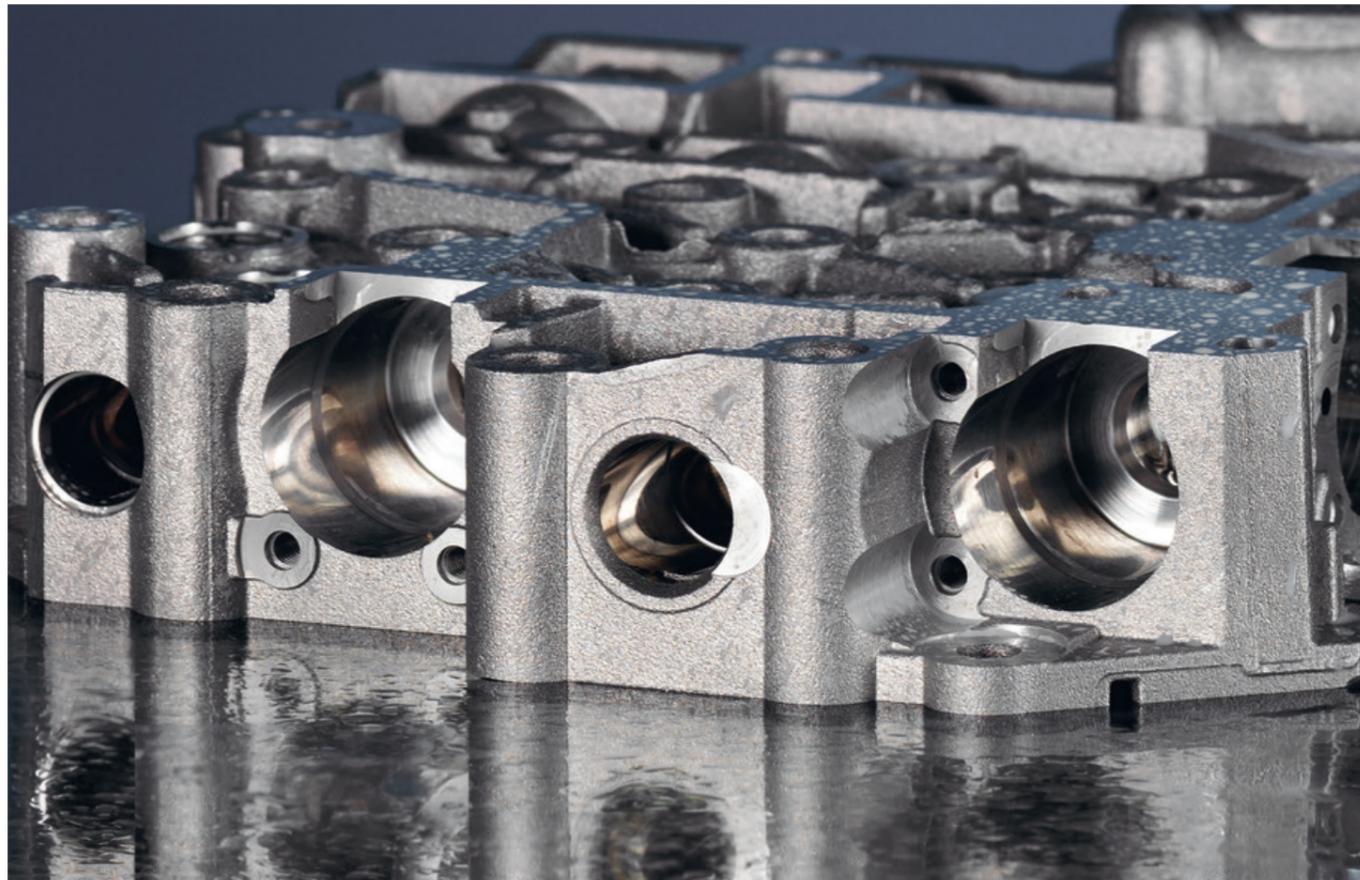
◆ = low ... ◆◆◆◆◆ = very high

BECHEM Avantin and more

In case the customer prefers oil-free, viscous coolant lubricants, we recommend our modern Berufluid coolant system. BECHEM is permanently improving this innovative process fluid which was honoured with the first German Raw Material Efficiency Prize.



BECHEM Avantin during use in transmission production



Worth their price – BECHEM lubricants

High-quality lubricants are indispensable products that are not only worth their price but that have also been honoured with numerous well-known awards. They have earned this status by making a decisive contribution to performance, energy efficiency and sustainability in a variety of industrial applications.



Berufluid* – honoured with the “German Raw Material Efficiency Prize”

* A mutual project of BECHEM, the Fraunhofer-Institut for Process and Technology, and the Institute for Machine Tools and Product Engineering (Technical University Braunschweig).

In 2013 BECHEM is honoured by Johnson Controls with the European Supplier Leadership Award “Global Growth” for tailor-made solutions for vehicles in the premium segment.

BECHEM wins the competition “NRW – Wirtschaft im Wandel” initiated by the organisation “Germany – Land of Ideas” and now belongs to the 20 most innovative companies in North Rhine-Westphalia.

Lubrication Solutions for Industry



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