



H.C. CARBON GmbH

Lubricants, Release and Coating Products

MECHANO-LUBE®

Customised solutions for many applications



**steel, stainless steel, titanium alloys, aluminum,
billet coating, mandrel-bar lubrication, slide plates,
special products**

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H.C. CARBON GmbH

H.C. Carbon GmbH is specialized in water-based lubricants. With over 30 years of experience in the field of graphite and its application, we can produce high performance lubricants using the outstanding technologies. With our knowledge and exceptional service, we face the ever more demanding and complex forging processes.



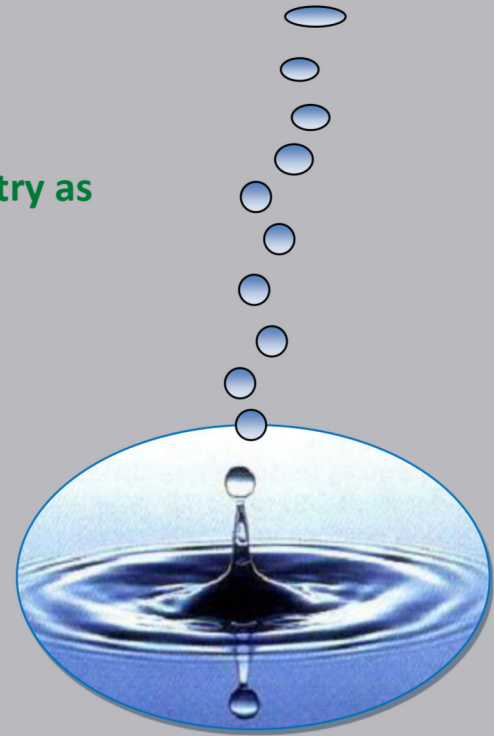
Environment and occupational safety

In all our developments, we always follow the basic idea:

"As much chemistry as necessary, as little chemistry as possible"

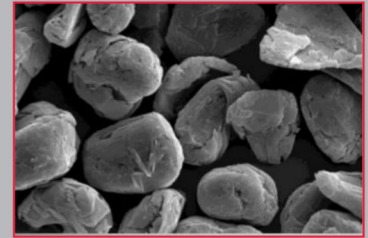
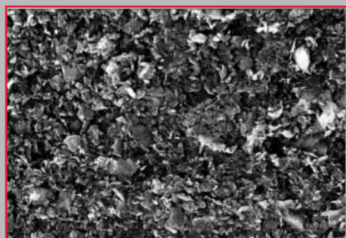
That means:

- All our lubricants are water based.
- We do not use any oil products.
- All our lubricants are VOC and APEO free.
- We pass of ammonia.
- We consider the health risk which can be produced from decomposition products and dusts during the forging process.



What makes us different

- We only use high-purity, crystalline graphite.
- With our milling technology, MECHANO-DESIGN®, we can not only adjust the particle size, but also the particle shape.



- We have found a unique combination between the chemical additives and the manufacturing process.



H.C. CARBON GmbH

Advantages for you

- Increased tool life
- Excellent cooling, releasing and lubricating properties
- Immediate wetting of the dies (no Leidenfrost phenomenon)
- Extremely short drying time (no blowing out necessary)
- Suitable for all spray systems (air spraying, airless)
- Easy cleaning of the dies (no sticking of the ejector)
- Improved part quality
- Low environmental impact
- No toxic decomposition products
- High efficiency due to reduced downtimes
- Can be reused if damaged by frost *

* according specification of HCC

Our Products

Through consistent research, development and the study of deformation processes, we have managed to solve a large number of tasks with just a few products and this protects our customers from a large number of products.

Steel



MECHANO-LUBE® 1VP12

Water-based universal lubricant based on graphite for many applications.

Dilution ratio: simple transformation = 1:25-1:30

difficult transformation = 1:8

MECHANO-LUBE® 1VP568

Water-based graphite lubricant for extremely deep dies and very high cycle times. **Dilution ratio: 1:8 – 1:12**

MECHANO-LUBE® 1D8

Water-based graphite lubricant for simple transformations and for price-sensitive forging. **Dilution ratio: 1:8 – 1:15**



Stainless steel



MECHANO-LUBE® 1VP12

Water-based universal-graphite lubricant.

Dilution ratio: 1:8 – 1:15

MECHANO-LUBE® 1VP568

Water-based universal-graphite lubricant for extremely poor flowing stainless steels. **Dilution ratio: 1:8 – 1:10**

Titanium alloys



MECHANO-LUBE® 1VP12

Water-based universal-graphite lubricant. According to the form, as solo lubricant or together with glass-coating.

Dilution ratio: 1:8 – 1:10

MECHANO-LUBE® 1VP568

Water-based graphite lubricant according to requirements. According to the form, as solo lubricant or together with glass-coating.

Dilution ratio: 1:8 – 1:10

Aluminum



MECHANO-LUBE® 1VP574

Water-based graphite lubricant with special additives. In almost all cases it can be used to replace oil lubricants.

Dilution ratio: 1:10 – 1:15



Billet-Coating

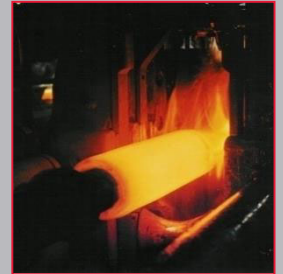


MECHANO-LUBE® 1VP19

Water-based graphite lubricant for Billet-Coating. Special additives either completely prevent or greatly reduce scale formation during passage through the induction furnace. The dispersion is suitable for spray application or dipping (dip process).

Dilution ratio: 1:1 – 1:5

Mandrel bar lubrication



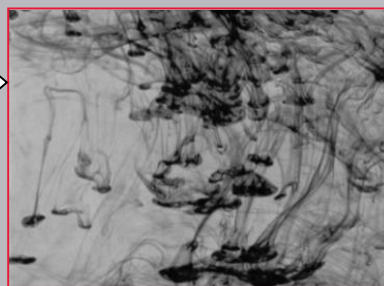
MECHANO-LUBE® 1M2

Lubricant powder in instant form. Extremely low dust. Contains all additives and is easy to convert into an aqueous dispersion. Also suitable for chromium-plated mandrels. Especially for MPM, FM and Assel.

Powder transfer in dispersion



instant powder



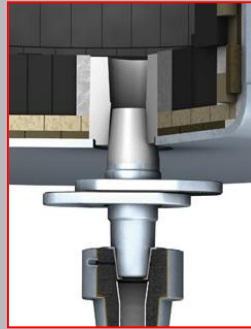
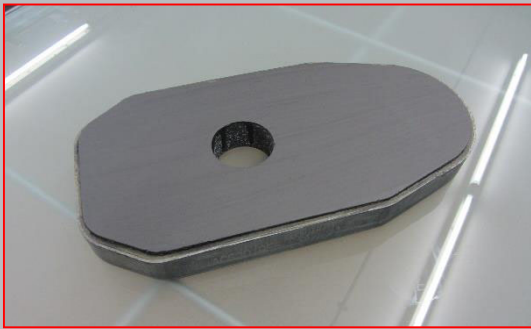
powder + water



stirring - ready



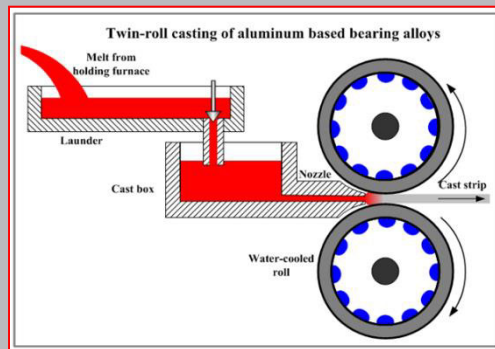
Ladle slide plates



MECHANO-LUBE® 1VP496

Water-based graphite coating for ladle slide ceramic plates. Suitable for all spraying and application processes. Highest oxidation resistance.

Aluminum roll casting



MECHANO-LUBE® VP628

Graphite-free, water-based lubricant and release agent for aluminum roll casting. Stabilized dispersion of a layered silicate. Suitable for all spray processes. Can be diluted with water as required. Does not form residues on the rollers and sheets.

Cold expansion

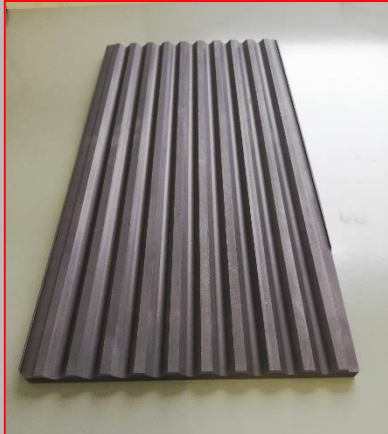


MECHANO-LUBE® 1D6

Water-based graphite lubricant for mandrel coating. Highest pressure resistance, no cold welding.



Charging plates



MECHANO-LUBE® 3VP697

Aqueous graphite coating for charging plates for hard metal production. Good adhesion to the plates, no diffusion into the hard metal.

Special products



If extreme oxidation and temperature resistance are required, hexagonal boron nitride is used. HCC has both an aqueous dispersion and the powder component. For stable coatings in the foundry process, as a release agent and solid lubricant. As surface protection in welding technology as well as in glass forming.

MECHANO-LUBE® 6D1

Water-based boron nitride dispersion with very high adhesion on many substrates.

MECHANO-COND® 6P3

Hexagonal boron nitride powder. Solid lubricant. High thermal conductivity.

MECHANO-LUBE® 6VP746

Lubricant dispersion based on glycol for high-temperature application. Lubrication of the slide shoes in pusher furnaces. Suitable to replace oil products.



Delivery forms



1100 kg IBC



220 kg Steel barrels



25 kg Pails



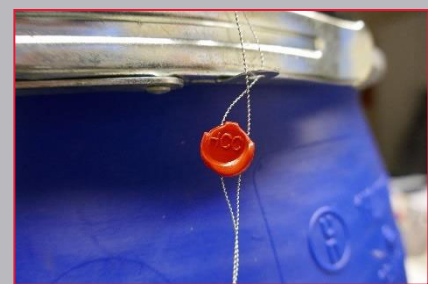
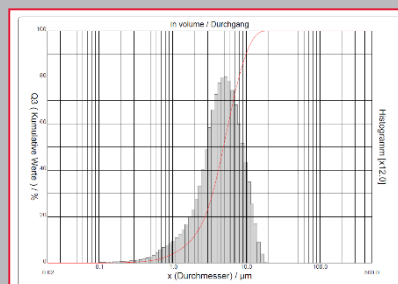
300 kg Big- Bags
lubricant powder

Customizing services



- On request, we accompany the forging trials and help you to optimize. Of course, free of charge.
- We offer you the newest generation dilution machine.
- We help you with the analysis (determination of the actual dilution ratio). No conductive measurement.

Quality



- All our products are final filtered to avoid impurities.
- We provide a certificate of analysis for all deliveries.
- After analysis, the containers are sealed.
- For each batch we hold a return sample for 3 years.

“We are pleased to support you.”