



# HIGH PERFORMANCE LUBRICANTS

For a + of performance in the process!

Quality made in Germany by AVIA BANTLEON



# OUR PRODUCTS

## COOLING LUBRICANTS

Water-miscible



**AVIA  
METACOOOL**

## COOLING LUBRICANTS

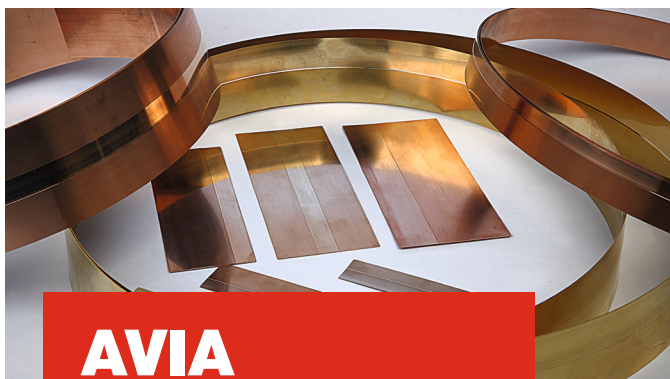
Neat oil



**AVIA  
METACON**

## FORMING LUBRICANTS

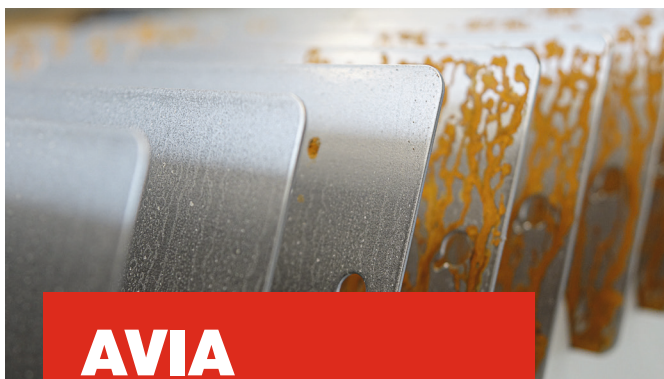
Neat oil



**AVIA  
METAPRESS**

## CORROSION PROTECTION MEDIA

Liquid preservation



**AVIA  
METACORIN**

# OUR AVIA-PARTNER-NETWORK DRAWS WIDE CIRCLES!

As a global operating company, we have invested early into a network of top partners in different countries. This enables us today to offer you professional solutions at all the important production sites of the world.

Our corporate philosophy recognizes quality as its central element. Therefore, we consider quality to go far beyond the product. It comprises all corporate services from consulting to analysis. Use our international presence to your benefit.

**WE ARE THERE FOR YOU!**

**AUSTRALIA AUSTRIA BRAZIL BULGARIA  
COLOMBIA CROATIA CHINA CZECH REPUBLIC  
ESTONIA FINLAND FRANCE GERMANY  
GREAT BRITAIN GREECE HUNGARY INDIA  
INDONESIA IRELAND ITALY JAPAN MALAYSIA  
MEXICO NAMIBIA NETHERLANDS NEW ZEALAND  
PARAGUAY POLAND PORTUGAL ROMANIA  
SWITZERLAND SINGAPORE SLOVAKIA SLOVENIA  
SPAIN SOUTH AFRICA TAIWAN THAILAND  
TURKEY USA VIETNAM**



# AVIA METACOOOL

Our portfolio covers universal cooling lubricants, as well as material- and process-optimized product solutions. Many grades have been developed as special industry solutions for specific material and process profiles. We can therefore offer you a broad range of stable high-performance cooling lubricants for machining plastics, non-ferrous metals and aluminum, high-alloy steels, carbides and cast steel.

**METACOOOL EST 20**

Semi synthetic, biostable cooling lubricant for the machining of steel and cast iron. The product has excellent rinsing properties.

**METACOOOL EAL 55**

Mineral oil-based cooling lubricant for universal utilization. Due to the enhanced level of additives, the product is ideal for aluminum alloys and other sophisticated materials.

**METACOOOL EMP 55**

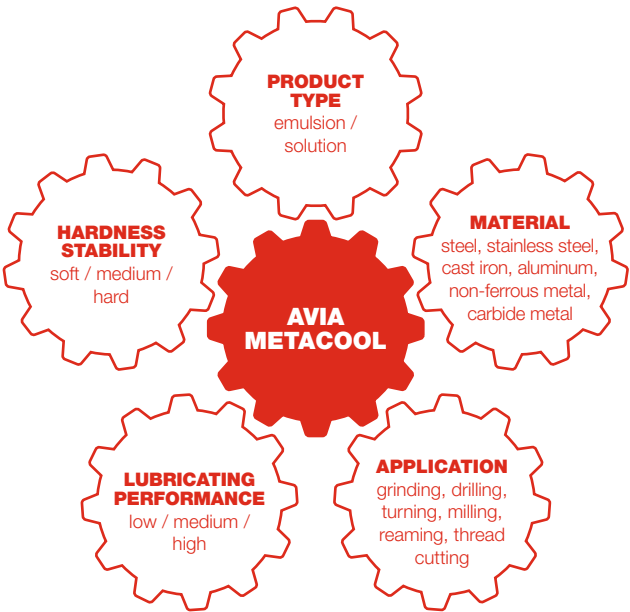
Multi-purpose cooling lubricant for mixed machining with high material compatibility. The product is suitable for frequently alternating requirements.

**METACOOOL EST 10 PLUS**

High performance semi synthetic cooling lubricant for demanding operations of steel and cast iron. The product offers enhanced biostability and good corrosion protection properties.

**METACOOOL EHM 1**

Fully synthetic solution for grinding carbide metals with integrated non-ferrous metal protection. Increased protection against cobalt leaching.



METACOOOL		EST 20	EAL 55	EMP 55	EST 10 PLUS	EHM 1
Product type		Emulsion	Emulsion	Emulsion	Emulsion	Solution
Application	Grinding	++	-	+	+	+
	Drilling	+	++	++	++	-
	Turning	+	++	++	+	-
	Milling	+	++	++	++	-
	Reaming	-	+	+	+	-
	Thread cutting	+	++	+	+	-
Material	Steel	+	+	++	++	+
	Stainless steel	(+)	+	++	+	+
	Cast iron	++	-	+	+	+
	Aluminum	-	+++	++	+	(+)
	Non-ferrous metal	-	+	+	-	++
	Carbide	-	-	-	-	+++

# AVIA METACON

Our cutting and grinding oils offer product solutions for all application segments. In addition to lubricating capacity and other technological properties, often also process-related factors need to be taken into account.

## METACON EG 710 X

High-performance grinding oil based on synthetic hydrocarbons. For surface treatments with the highest demands. The product can be used for grinding HSS and carbide metals.

## METACON E 1320 X

Cutting oil for machining medium and high alloyed steels and stainless steels. Active EP & AW ingredients for long tool life.

## METACON E 2100

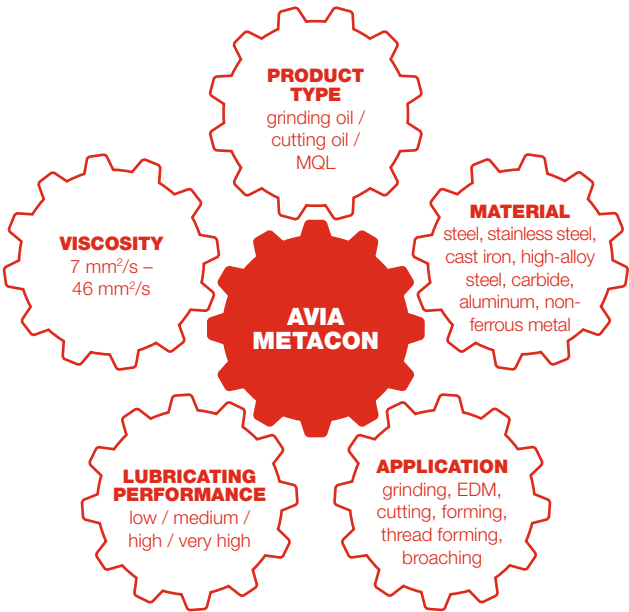
All-round cutting oil for machining steel, cast iron and aluminum alloys.

## METACON E 2200

Cutting oil for machining aluminum and non-ferrous metals, especially for the requirements of modern lathes.

## METACON EQ 4600

Minimum quantity lubrication. Highly polar active ingredients for optimal tool protection.



METACON		EG 710 X	E 1320 X	E 2100	E 2200	EQ 4600
Product type		Grinding oil	Cutting oil	Cutting oil	Cutting oil	MQL
Application	Grinding	+++	+	+	+	-
	EDM	+	-	-	-	-
	Cutting	-	+++	+	+	++
	Forming	-	-	+	-	+
	Thread forming	-	+++	+	(+)	++
	Broaching	-	+	+	-	-
Material	Steel	+	+++	+	+	++
	Stainless steel	+	+++	+	-	++
	Cast iron	+	++	+	+	+
	High alloy steel	+	+++	+	-	++
	Carbide	++	-	-	-	-
	Aluminum	+	+	++	+++	++
	Non-ferrous metal	+	-	++	+++	++
Viscosity		7	13	21	22	46

# AVIA METAPRESS

Punching and forming lubricants are ideal for stamping, drawing and bending procedures with a broad range of materials, from aluminum, non-ferrous metals up to high-alloyed steels. Starting from electrical sheet punching with low film residues, chlorine-free forming and precision cutting of challenging materials and part geometries: We have the right forming lubricant for an optimum surface finish, high productivity and the best process integration.

**METAPRESS EF 25**

Universal stamping oil. Highly suitable for punching and forming processes in progressive tools.

**METAPRESS EF 140**

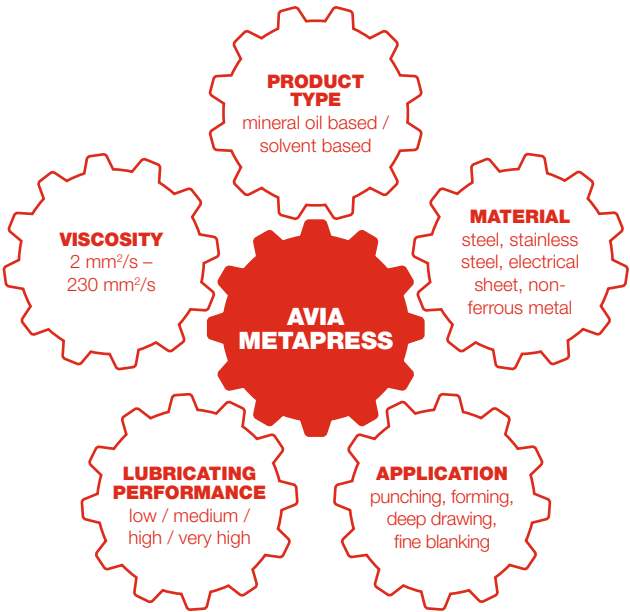
Stamping and forming oil with a medium viscosity. Designed for a wide range of applications due to its balanced EP & AW additivation.

**METAPRESS EF 230**

High viscosity forming oil for sophisticated applications. Designed for deep drawing and fine blanking operations.

**METAPRESS EF 1 R**

Low residue stamping fluid for thin sheet metals, especially for the electrical industry.



METAPRESS		EF 25	EF 140	EF 230	EF 1 R
Product features	Base fluid	Mineral oil	Mineral oil	Mineral oil	Solvent
	Viscosity at 40°C [mm²/s]	25	140	230	2
	Residue on component	oily	oily	oily	1 %
Performance level		++	+++	++++	+
Material	Steel	+	++	+++	+
	Stainless steel	(+)	+	++	-
	Electrical sheets	-	-	-	++
	Non-ferrous metal	-	-	-	++

# AVIA METACORIN

Our oil-based or wax-based corrosion protection media are carefully developed on a process-specific basis. The protection periods are dependent on the product and the application and can range from a few days to several years.

**METACORIN EPRO 30**

Product for short-term indoor storage of ferrous and non-ferrous metals. Protects metal parts against corrosion.

**METACORIN EPRO 120**

Product for indoor storage and transport packaging of ferrous and non-ferrous metals. Protects metal parts against corrosion.

**METACORIN EPRO 600**

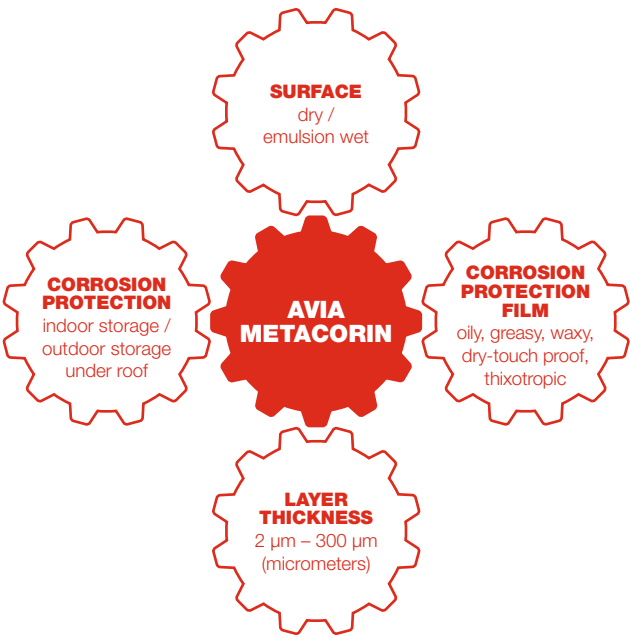
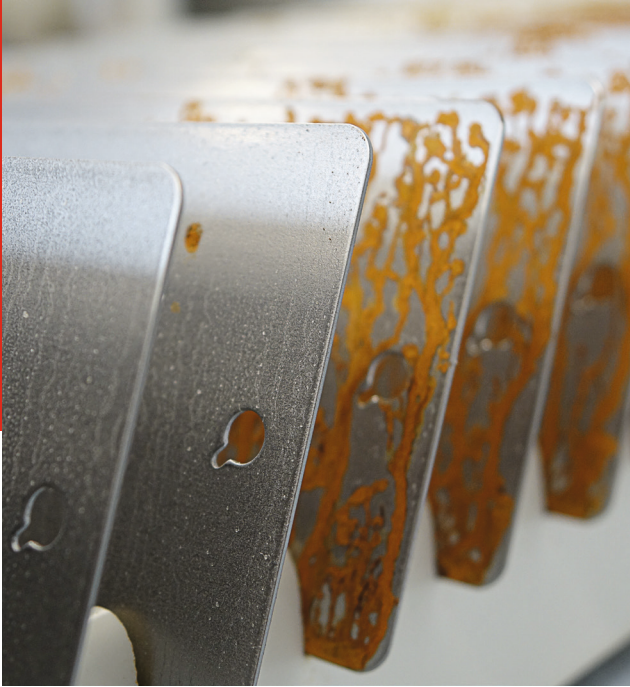
Adhesive corrosion protection fluid with thixotropic self-healing properties for long-term applications or overseas transport of components, assemblies or finished products.

**METACORIN EPRO DW 120**

Water-displacing fluid for the universal preservation of tube, rod and precision parts. It forms a slightly oily, transparent corrosion protection film.

**METACORIN EPRO DW 180**

Product based on a VOC-free solvent with very good water-displacing properties. The product builds a very thin vaseline / wax like, touch-proof corrosion protection film. For the protection of smooth steel surfaces during storage or shipping.



METACORIN		EPRO 30	EPRO 120	EPRO 600	EPRO DW 120	EPRO DW 180
Component	Surface condition	dry	dry	dry	wet or dry	wet or dry
Corrosion protection	Indoor storage (months)	2 - 3	up to 12	up to 60	up to 12	up to 18
	Outdoor storage under roof (months)	-	up to 4	up to 24	up to 6	up to 12
Corrosion protection film		oily	oily	greasy / thixotropic	oily	waxy / dry-touch proof
Layer thickness [µm]		approx. 10	approx. 14	approx. 300	approx. 3	approx. 2



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