

## Metalworking fluid

### ISO L-MAF

# BISOL<sup>®</sup> 10 AL

BISOL<sup>®</sup> 10 AL is semisynthetic water-soluble metalworking fluid based on mineral oil, emulsifier and suitable additives that provide excellent lubricating properties, enduring extreme pressures, excellent anticorrosion protection, rinsing ability and appropriate biostability ensures durability in application.

#### ADVANTAGES

- Excellent lubricating and anticorrosion properties,
- High precision and quality of treated surfaces,
- Long life
- Easily emulsifies in water,
- Low foaming,
- Mild odour,
- High microbiological resistance,
- Excellent stability in hard waters,
- Economical,
- It does not irritate or dry out the skin.

#### QUALITY LEVEL

ISO 6743-7, L-MAF,  
ISO/TS 12927

#### APPLICATION

BISOL<sup>®</sup> 10 AL is especially recommended for the processing of aluminum and its alloys, non-ferrous metals. It can be used for processing low-alloy steel and grey iron characterized by light and medium processing modes.

Type of processing	Grey iron	Low-alloy steel	Al and alloys	Mg and alloys	Cu and alloys
Turning	**	*	***	-	***
Milling	**	*	***	-	***
Drilling	**	*	***	-	***
Tapping and threading	**	*	***	-	***
Planing	**	*	***	-	***
Cutting	**	*	***	-	***

\*\*\* the best, \*\* acceptable, \* satisfactory, - not satisfactory

#### RECOMMENDED APPLICATION CONCENTRATION

Turning	3 - 4%
Milling, drilling, cutting, reaming	4 - 5%
Tapping and threading	5 - 6%

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#### ADDITIVE CONTENT

Oil type and content:	Mineral oil (max 40%)					
Additive content						
EP	AW	Boron	Amines	Chlorine	Esters	Nitrites
+	+	+	+	-	+	-
Stability in hard water	20°dH (360 ppm CaCO <sub>3</sub> )					

#### TYPICAL CHARACTERISTICS

CONCENTRATE			
CHARACTERISTICS	METHOD	UNITS	VALUE
Appearance	visual	-	clear
Density at 20°C	EN ISO 3675	g/ml	0,970
Kinematic viscosity at 40°C	ISO 3104	mm <sup>2</sup> /s	35
EMULSION			
CHARACTERISTICS	METHOD	UNITS	VALUE
Appearance	visual	-	semi-transparent
pH value at 3,5% concentration	ISO 4316	-	9,3
Corrosion on grey iron (chips/paper) 3,5%	DIN 51361/2	degree	0/0
Corrosion on aluminum	FAM MO 2250	-	no
Factor for refractometer	1,0		

Friction coefficient in the cutting zone:  $\mu = 0,04 - 0,07$

#### STORAGE

Store in covered area. If stored outdoors, it is necessary to place the drums in a horizontal position to prevent the accumulation of water on the surface of the drum. Do not store at elevated temperatures or in locations exposed to direct sunlight, nor at the temperatures below 0°C.

All necessary instructions can be found in the product SDS. It contains the details of possible hazards, warnings and first aid measures, as well as the impact on the environment and the necessary measures for the storage and handling.

#### PACKING

Plastic pails of 20 L, tin drums of 180 kg.

Data are orientational, manufacturer reserves the right to make changes in order to improve product quality.