

Metalworking fluid

ISO L-MAF

BISOL[®] 400

BISOL[®] 400 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,
- Long life,
- High precision and quality of treated surfaces,
- Easily emulsifies in water,
- Mild odour,
- High microbiological resistance,
- Excellent stability and protection against corrosion in hard water,
- Low foam in soft water,
- Economical,
- It does not irritate or dry out the skin.

QUALITY LEVEL

ISO 6743-7, L-MAF,

ISO/TS 12927

APPLICATION

BISOL[®] 400 is recommended for the processing of grey iron, low to high alloy steel, as well as for the treatment of aluminum and its alloys. It can be used for all metal turning operations characterized by high cutting resistance and high temperatures.

Type of processing	Grey iron	Low-alloy steel	High-alloy steel	Al and alloys	Mg and alloys	Cu and alloys
Grinding	***	***	***	-	-	-
Milling Turning	***	***	***	**	-	**
Making of seam-welded tubes	-	***	***	-	-	-
Drilling	***	***	***	***	-	***
Tapping	***	***	**	**	-	**
Broaching	***	***	***	**	-	**

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

RECOMMENDED APPLICATION CONCENTRATIONS

Grinding 2,5 - 3%
 Making of seam-welded tubes and profiles 3 - 4%

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

ADDITIVE CONTENT

Oil type and content:	Mineral oil (max 25%)					
Additive content						
EP	AW	Boron	Amines	Chlorine	Esters	Nitrites
+	+	+	+	-	+	-
Stability in hard water	20°dH (360 ppm CaCO ₃)					

TYPICAL CHARACTERISTICS

CONCENTRATE			
CHARACTERISTICS	METHOD	UNITS	VALUE
Appearance	visual	-	clear
Density at 20°C	EN ISO 3675	g/ml	0,990
Kinematic viscosity at 40°C	ISO 3104	mm ² /s	30
EMULSION			
CHARACTERISTICS	METHOD	UNITS	VALUE
Appearance	visual	-	semi-transparent
pH value at 4% concentration	ISO 4316	-	9,5
Corrosion on grey iron (chips/paper) 4%	DIN 51361/2	degree	0/0
Four ball AW test – wear diameter	ASTM D 2266	mm	max 0,8
Factor for refractometer	1,2		

Friction coefficient in the cutting zone: $\mu = 0,08 - 0,10$

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 and tin drums of 180 kg.

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