Eni Aquamet 700 EP

APPLICATIONS

Eni Aquamet 700 EP is a cutting fluid with excellent technological characteristics, free from bactericides, secondary amines, boron and chlorine.

Formulated with special lubricating and EP additives, detergent, anticorrosive and anti-rust agents.

Eni Aquamet 700 EP is suitable for medium and severe cutting operations such as: tapping, boring, MAPAL boring and deep drilling on aluminum and its alloys (AVIO), on titanium and its alloys, on steel and stainless steels, on cast iron, on magnesium and its alloys; it is not suitable for machining yellow metals.

It is suitable for grinding operations.

Eni Aquamet 700 EP shows a low foaming tendency in a wide range of water hardness, hard water and even under high delivery pressure.

Suitable for single and centralized systems.

CUSTOMER ADVANTAGES

- Free from biocides and secondary amines for a lower ecotoxicological impact and better conditions of the working environment
- Excellent cutting, cooling and lubricating capacity for less tool wear and better surface finishing of the workpieces
- High emulsion stability, with consequent reduction of the maintenance operations
- Suitable for working in a wide range of water hardness (optimal range: 10-50°F)
- Low tendency to form foam, even in presence of high delivery pressure
- Excellent detergent and anticorrosive properties to protect the machine tools, equipment and workpieces
- Free from boron and chlorine, lower disposal costs

SPECIFICATIONS - APPROVALS

- ISO 6743/7 MAC

Eni Aquamet 700 EP

CHARACTERISTICS

Properties	Method	Unit	Typical
Characteristics of the concentrate		-	
Appearance	-	-	clear
Density at 15°C	ASTM D 1298	kg/m³	965
Characteristics of the emulsion		-	
Emulsion appearance (3%, water 20°F)	-	-	opalescent
PH (5% Emulsione)	ASTM D 1287	-	9.75
Corrosion on paper	DIN 51360/2	-	pass at 3%
Corrosion	IP 125	-	pass al 3%
Refractometric factor		-	1.3

WARNINGS

- Before preparing the emulsion, it is necessary to carry out adequate cleaning of the tank and the circuits of the machine tool with suitable products
- Prepare the emulsion using possibly an emulsifier
- In case of manual mixing, it is recommended to add the product in the water slowly and shaking the mixture, never vice versa, to avoid problems of emulsion instability.
- Store the product in closed warehouses at temperatures between +5 and +30°C in order to prevent product deterioration, due to thermal shocks
- Monitoring of the working emulsion is recommended in order to ensure the emulsion performance in the time and to prolong its useful life
- More detailed information will be provided by the Eni Technical Assistance Service.

HANDLING INFORMATION

- Here below are reported the recommended concentrations; however the actual concentration will be defined according to the specific operative conditions
  Due to the complex nature of aluminum alloys, we advise to check always the stain test before any processing

Processing	Cast Iron	Steel, Steel Inox	Aluminum and Alloys	Titanium and Alloys
Grinding	5%	5-6%	6%	6%
Turning, Milling	6%	7%	6%	7%
Boring, Drilling	6%	8%	8%	9%
Deep Drilling, Tapping, Threading	7%	8-10%	10%	10-12%
Mapal Boring on Aluminum			10%	