



APPLICATIONS

Eni Aquamet 700 EP is a cutting fluid with high oily properties, free of bactericides, secondary amines, boron and chlorine.

The product have a low tendency to foam formation in a wide range of water hardness, even under high pressure delivery.

Eni Aquamet 700 EP is suitable for medium-severe and heavy-severe chip removal such as: tapping, boring, MAPAL boring and deep drilling on aluminum and its alloys (AVIO), titanium and its alloys, on alloyed and stainless steels.

It can also be used for machining cast iron, magnesium and its alloy; is not suitable for yellow metals.

CUSTOMER ADVANTAGES

- Excellent cutting, cooling and lubricating capacity
- Excellent stability of the emulsion in use
- Suitable for cutting operations with a wide range of water hardness (optimal range: 10-50°F)
- Low foam formation, even under high pressure delivery
- Excellent detergent and anti-corrosive properties assured for machine tool, equipment and workpieces.

SPECIFICATIONS & APPROVALS

- ISO 6743/7 MAC





CHARACTERISTICS

Properties	Method	Unit of Measure	Typical
Characteristics of the concentrate			
Appearance	-	-	clear
Density at 20°C	ASTM D 1298	kg/m ³	950
Characteristics of the emulsion			
Aspect of emulsion (3%, water 20 °F)	-	-	opalescent
pH soluz. 3%	ASTM D 1287	-	9.8
Corrosion on paper	DIN 51360	-	pass at 3%
Corrosion test	IP 125	-	pass al 3%
Refractometric factor	-	-	1.5

WARNINGS

- Before start the emulsification operation, it is necessary to carry out adequate cleaning of the tanks and cooling circuits with suitable products.
- Prepare the mixture using an emulsifier, if possible.
- 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.
- To prevent the product deterioration, due to the heat changes for the exposure of the outdoor containers, storage in closed environments at temperatures between +5 and +30° C, is recommended.
- Periodical monitor of the lubricant cooler status is recommended. This is in order to ensure the steady state of the operating parameters and the useful life of the emulsion over time.
- In order to obtain the best results, it is recommended to always follow the above indicated instruction.
- More detailed information will be provided by the Eni Technical Assistance Service.



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HANDLING INFORMATION

- Here below are reported the recommended concentrations; However, adjustment of effective concentration is necessary according to the specific operational conditions.
Given the complex nature of aluminum alloys, it's suggested to check always the stain test before any processing.

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



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