



APPLICATIONS

Eni Aquamet 700 EXTREME is a cutting fluid with excellent technological characteristics, free of bactericide and boron, formulated with EP, anticorrosive, anti-rust and detergent agents.

Particularly suitable for severe cutting operations such as: deep drilling, tapping, threading and MAPAL boring on aluminum and its alloys, steels and stainless steel, yellow metals; it is not suitable for machining cast iron.

The particular formulation makes the product suitable also in light plastic deformation operations on aluminum and steel sheets.

CUSTOMER ADVANTAGES

- Free of bactericide, boron and secondary amines for a lower ecotoxicological impact and better condition of the working environment
- Excellent cutting, cooling and lubricating capacity for less tool wear and better surface finishing of the workpieces
- Low foam formation, even under high pressure delivery and in a wide range of water hardness (optimal range: 15-40°F)
- Excellent emulsion stability, reduction of the frequency of maintenance operations
- Particularly suitable for machining aluminum and its alloys
- Excellent detergent property to maintain clean the machine tool, equipment and workpieces

SPECIFICATIONS - APPROVALS

- ISO 6743/7 MAD





CHARACTERISTICS

Properties	Method	Unit	Typical
<![CDATA[Characteristics of the concentrate]]>			
Appearance	-	-	clear
Density at 20°C	ASTM D 1298	kg/m ³	950
<![CDATA[Characteristics of the emulsion]]>			
Emulsion appearance (3%, water 20°F)	-	-	milky
pH emuls. 3%	ASTM D 1287	-	9.0
Corrosion on paper	DIN 51360	-	pass at 5%
Corrosion	IP 125	-	pass at 5%
Refractometric factor	-	-	1.0

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° in order to prevent product deterioration, due to thermal shocks
- Monitoring of the working emulsion is recommended in order to ensure the emulsion performances in the time and to prolong its useful life
- 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 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	Steel, Steel Inox	Aluminum and Alloys	Copper and Alloys
Turning, Milling	5%	6%	5%
Boring, Drilling	6%	6%	6%
Deep Drilling, Tapping, Threading	8%	8%	8%
Mapal Boring on Aluminum		8%	

