

ZEAL ZEMET CUTTING OIL

HIGH QUALITY SOLUBLE CUTTING OIL

PRODUCT DATA SHEET

PRODUCT DESCRIPTION

Zeal zemet soluble cutting oil is a high-performance metalworking fluid designed to provide effective lubrication and cooling during machining operations. It reduces friction between the cutting tool and workpiece, improving surface finish and tool life. The formulation offers good thermal stability, heat dissipation, and anti-wear properties. It also provides corrosion protection for both tools and machined parts. Suitable for various metals and processes, it ensures consistent and efficient machining performance.

FEATURES & BENEFITS

- Outstanding lubricating property.
- Excellent rust and corrosion protection.
- Excellent emulsion stability.
- Excellent cooling of tools and worked components.
- Avoids objectionable odors due to the presence of bactericides in the formulation.

SPECIFICATIONS

Zeal zemet soluble cutting oil is water soluble cutting oil suitable for use in all type of cutting and grinding operations for both ferrous & non-ferrous components, with following recommended dilution ratios.

- 3 - 5% for general metal working.
- 2.5 - 4% for grinding.
- 5 - 10% for heavy duty cutting.
- 5 -6% for use as a fire-resistant hydraulic fluid.

TYPICAL PHYSICAL CHARACTERISTICS

Zeal Zemet	Test Method	Units	Water soluble cutting oil
colour	ASTM D 1500	---	4.0
appearance	visual	---	Brown & clear
Specific gravity@ 60/60°F	ASTM D 4052	Gm/cc	0.872
Viscosity @ 40 °C	ASTM D 445	cSt	40.6
Pour Point	ASTM D 97	°C	-12
Flash Point (COC)	ASTM D 92	°C	185
Total Base Number	ASTM D 2896	mg KOH/g	11.4
pH Value (1% solution in distilled H ₂ O)	E70	---	9.0max
Emulsion stability,24 hours	ASTM D 3707	---	---
I. 5% in distilled water			Slight ring – no oil trace
II. 5% in 340 ppm			2 ml cream – no oil trace

These characteristics are typical of current product methods whilst future production will confirm to Zeal lubricants specifications, variations in these physical characteristics may occur.