

EMULCUT 160 E

WATER DILUTABLE METALWORKING FLUID

DESCRIPTION

EMULCUT 160 E is a high-performance metalworking fluid for difficult to machine materials.

The product can be used on: steel, grey cast iron, stainless steel, aluminium, copper, brass as well as other non-ferrous metals and nickel-based alloys. It is suitable for the following machining operations: turning, drilling, milling, reaming, honing, thread forming, thread tapping, deep hole drilling, sawing and broaching.

EMULCUT 160 E is based on high performance esters. Due to the specially selected combination of raw materials, the emulsions achieve excellent lubrication performance and also enhanced tool life.

Additionally, special inhibitors give effective prevention against nitrosamine formation.

EMULCUT 160 E emulsions are recommended to be made up using proprietary coolant mixing equipment. Alternatively, the concentrate should be added to the make-up water in a fast moving part of the system.

BENEFITS

- boron and formaldehyde free
- long term stability
- excellent lubrication performance
- very good filterability
- pH-stable emulsion
- outstanding corrosion prevention
- low foaming tendency

TECHNICAL DATA

Oil acceptance characteristic	emulsifying
Oil droplet dispersion	fine
Boron/FRB free	✓
TRGS-611-compliant	✓
Corrosion prevention, 5 % in water with 20 °dH [356 ppm] (DIN 51360/2)	Note 0
Preparation water quality	5 - 20 °dH [90 – 370 ppm CaCO ₃]
Foam behaviour	low
Storage temperature	5 - 35 °C avoiding frost
Shelf life	observe the use by date on the container

PHYSICAL DATA

Appearance/20 °C (visual)	light yellow liquid
Density/20 °C (ASTM D 7042)	approx. 1.000 g/cm ³
Viscosity/20 °C (ASTM D 7042)	approx. 118 mm ² /s
pH value/10 % in water with 20 °dH [356 ppm]/20 °C (DIN 51369)	approx. 9.4

FACTORS FOR CONCENTRATION DETERMINATION

Acidimetric titration up to pH 4: 0.71*

Acidimetric titration up to pH 7: 1.06*

Refractometer: 1.6

Acid split factor: 2.8

*) Method used: Titration of a 10 ml sample with 0.1 n hydrochloric acid

CONCENTRATIONS RECOMMENDED FOR USE

Thread forming, sawing: 8 – 12 %

Turning, drilling, milling: 6 – 8 %

Reaming: 8 - 20 %

Deep hole drilling: 8 – 14 %

Only valid in combination with EC Safety Data Sheet

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