

FLC-235 Precision Quartz Machining & Grinding Fluid

FLC-235 is specifically designed for fabricating brittle materials. It contains no boron or other compounds that can react with the freshly ground or cut surface of most brittle substrates. It also has a special additive package to prevent surface liquids from drying on newly fabricated parts. This additive package also aids in the rapid and complete removal of all films and residues from part surfaces.

FLC-235 provides high levels of both finish and machine corrosion protection. FLC-235 is fortified with a special soft-settling additive to keep ceramic grinding swarf from settling rock hard in coolant sumps. FLC-235 is low foaming and low misting. It is cost-effective and meets the needs of high-performance grinding operations. FLC-235 is ideal for jobs requiring superior finishing and extended wheel life. FLC-235 can also be used as a metal grinding fluid.

Superior Corrosion Protection – FLC-235 passes a standard ASTM Cast Iron Chip Test at a 40:1 dilution and has a perfect pass at 35:1

Added Lubricity – FLC-235 has moderately high levels of lubricity and load carrying additives for superior finishing and added wheel life.

Low Misting – FLC-235 resists misting in the most severe applications, including Blanchard grinding.

Versatility – FLC-235 can be used in most grinding, operations including Blanchard,

Keep, heavy surface grinding and light machining on ceramic and ferrous metals.

Rejects Tramp Oil – FLC-235 rejects tramp oils to help maintain a cleaner machine and healthier work environment.

Biologically Stable – FLC-235 is formulated to provide extended tank life and low sludge levels due to biological build up.

Economical – FLC-235 meets the basic grinding needs of today's production ceramic and metal grinding shops at an economical price.

Will Not Attack Copper or Aluminum – FLC-235 is compatible with most steel and cast iron metals and will not dissolve copper.

Calculating Starting Amount of Coolant – To calculate the correct amount of coolant to be added to the sump, multiply coolant sump volume by 7.5 (the number of gallons of liquid in a cubic foot).

Example:

Tank width = 2 ft

Tank length = 6 ft

Tank depth = 2 ft

Volume = 2 x 6 x 2 = 24 cu ft

Liquid Volume = 24 x 7.5 = 180 gal

For a 50:1 concentration, add 180/50 = 3.6 gal to the coolant tank.

Adding FLC-235 to the Coolant Tank – When diluting FLC-235, ensure that the machine sump is clean and free of built up

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glass fines and other foreign materials. Always add water to the sump first after cleaning, and then add FLC-235. Circulate the sump for several minutes before starting production to give the tank time to completely mix.

Checking Concentration – Coolant concentration should be checked daily whenever possible. The simplest method is with a hand held refractometer. For the best results, always filter the coolant through a 1-micron filter before reading the solution concentration. Once the coolant has been filtered, place a drop or two on the face of the refractometer. Hold the instrument up to the light and read the number just at the light colored line on the screen face. Write down and use it to refer to the refractive index chart enclosed with the product. Find the reading on the refractometer and locate it on the left-hand side of the chart. Now read to the right and down to determine the current dilution.

Contains Alkanolamines – Do not add solutions containing sodium nitrite to FLC-235.

Recommended Starting Dilutions

Surface Grinding 20:1 - 25:1
Blanchard Grinding 20:1 to 30:1
Double Disk Grinding 10:1 to 25:1

Typical Properties

Appearance	Clear Liquid
Volatile Component	Water
Freeze Point	32°F
Boiling Point	212°F
pH	10 - 10.5
Evaporation Rate	NA
Odor	Mild
Vapor Pressure	NA
Vapor Density	NA
Specific Gravity	1.05 – 1.06
VOC	None
Weight per Gallon	8.75 – 8.85
Solubility in Water	Infinite

Packaging and Handling – FLC-235 is a liquid packed in non-returnable drums, Tote Bins, Pails, and Bulk. Refer to the Material Safety Data Sheet for suitable materials of construction, for handling, and storing of this product. Observe all safety precautions shown on the label and in the Material Safety Data Sheet.

Health	1
Flammability	1
Reactivity	0
Personal Protection	B

Ferro Electronic Material Systems Penn Yan, New York, U.S.A. 315-227-5276

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