

FLC-350 Carbide Grinding Fluid

FLC-350 is a grinding fluid formulated for use on carbide surfaces of all types, as well as most other ferrous metal surfaces. FLC-350 has been formulated to reduce or eliminate potential hazards created by conventional amine-based fluids, including dissolving cobalt from carbide metal and its related health issues.

High Line Speeds – FLC-350 is formulated with high levels of lubricity additives, allowing increased line speeds.

Highly Dilutable – FLC-350 can be diluted to extended levels (35:1 to 40:1) with water, and produce a perfect pass in the ASTM Cast Iron Chip test.

Outstanding Corrosion Protection – FLC-350 provides significantly higher levels of in-process and machine corrosion control than most competitive materials.

Non-Sticky – FLC-350 will not build up on floors and equipment. It runs exceptionally clean and will clean most residues left by previous coolants.

Biological Stability – FLC-350 provides extended tank life and low sludge levels due to biological build up.

Non-Foaming – FLC-350 is non-foaming even in areas of high agitation.

Safe on Most Metals – FLC-350 will not attack most ferrous or non-ferrous metals. It will not attack electrical components and contacts.

Waste Treatable – FLC-350 rejects tramp and way oils; therefore, it is easily waste treated by simple and inexpensive methods. Always contact your local and state agencies before disposing of this or any other material.

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 = $2 \times 6 \times 2 = 24$ cu ft

Liquid Volume = $24 \times 7.5 = 180$ gal

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

Adding FLC-350 to the Coolant Tank – When diluting FLC-350, ensure that the machine sump is clean and free of built up glass fines and other foreign materials. Always add water to the sump first after cleaning, and then add FLC-350. 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

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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.

Recommended Starting Dilutions

Grinding 20:1 to 25:1

Typical Properties

Appearance	Clear Blue Liquid
Volatile Component	Water
Freeze Point	32°F
Boiling Point	212°F
pH	10 - 10.3
Evaporation Rate	NA
Odor	Mild
Vapor Pressure	NA
Vapor Density	NA
Specific Gravity	1.04 – 1.05
VOC	None
Weight per Gallon	8.65 - 8.75
Solubility in Water	Infinite

Packaging and Handling – FLC-350 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.

Tank Cleaning – Prior to charging the system with FLC-350, thoroughly removes existing fluids and build-up. Suggested procedures:

- Add DPB Dispersant, Penetrant and Barrier-Film Corrosion Inhibitor to the existing coolant to break up unseen deposits.
- Drain and dispose of old coolant.
- Clean deposits with FL-30 Hard Surface Cleaner.
- Rinse system with 2% FLC-350.
- Recharge system.

Avoid using products like WD-40 for surface cleaning; this may adversely affect new coolant.