

## FLC499 Precision Mirror Grinding Fluid

FLC499 is a fully synthetic glass grinding fluid for use in high-volume automated production lines. FLC499 features high removal rates, rapid controlled settling, low energy consumption, and greatly extended wheel wear rates.

**Lubricity** – FLC499 features a concentrated lubricity package for removal rates up to 40% higher than those of most competitive fluids.

**Lower Power Consumption** – Because of its superior lubrication package FLC499 cuts power requirements by substantially lowering the coefficient of friction at the wheel glass interface, substantially reducing the required amount of power.

**Extended Wheel Life** – When used properly FLC499 will significantly extend the life of most diamond wheels while providing a high-quality level finish.

**Controlled Settling** – FLC499 is formulated with an efficient settling additive package. This package allows the glass fines to settle out of solution in a controlled manner, thus eliminating build up in return lines and on machine parts. When it is time to clean settling tanks and automatic swarf removal equipment, the residue can be either shoveled out or simply washed out with water.

**Biological Stability** – FLC499 provides excellent resistance to biological deterioration. Each component in the formulation is selected for its resistance to attack by bacteria and fungus. FLC499 uses no toxic biological

control agents that may harm worker's skin or upper respiratory system.

**Starting Dilutions** – FLC499 is to be used at a dilution of 50-100 to 1 (2%) with water, depending on the severity of the job, wheel type, and the required line speed.

**Extended Sump Life** – Because of new more stringent waste disposal regulations, coolants today must provide longer service life. When managed correctly, FLC499 can last twice as long as normal coolants. To obtain maximum life from FLC499, test for suspended solids once per week. Once the solids level has been determined, simple post treatment in the existing tank will clear the fluid of most unwanted glass fines and leave the fluid ready for another week of high speed operation. To learn more about how to post treat FLC499 contact your Ferro representative or your Distributor.

**Automated Dilution Control** – FLC499 can be diluted by several methods. Simple venturi dilution systems work well for smaller users. If more accuracy is required for high-volume users, consider using our Automated Dilution Control Station, which is accurate to one quarter of one percent.

**Custom Options** – FLC499 can be custom formulated to meet special performance requirements, such as increased line speeds, extended wheel life, or swarf removal.

**Contains No Silicone** – FLC499 contains no silicone, diethanolnitrosamine, nitrites, phosphates, PCBs, PTBBA, mercurial, phenols, or mineral oils.

### Recommended Starting Dilutions

[www.ferro.com](http://www.ferro.com)

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## FLC499 Precision Mirror Grinding Fluid

Beveling	50:1 to 100:1
Lens Generating	30:1
Edging	75:1 to 100:1
Surface Grinding	50:1

### Typical Properties

Appearance	Transparent Green Liquid
Volatile Component	Water
Freeze Point	32°F
Boiling Point	212°F
pH	9.4 - 9.8
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

FLC499 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.

### Packaging and Handling

Ferro Electronic Material Systems

Penn Yan, New York, U.S.A.

315-227-5276

[www.ferro.com](http://www.ferro.com)

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