

399C is a fully synthetic glass grinding fluid for use in high-volume automated production lines. 399C features high removal rates; rapid controlled settling, low energy consumption, and greatly extended wheel wear rates.

Note: 399C is specifically designed for use with coagulants and flocculants in settling or centrifuge systems.

High Levels of Lubricity – 399C combines superior wetting capabilities and high levels of active lubrication to provide both high-quality surface finish and increased line speeds, while dramatically increasing diamond wheel life. 399C actively helps reduce surface scratching and edge chipping by providing a protective lubrication film for the part surface during fabrication.

Low Power Consumption – With its innovative lubrication package, 399C provides significantly lower overall power consumption at the wheel glass interface. In most tempering operations, lower power requirements equate to lower rejects through the tempering ovens. Lower power at the diamond substrate interface also equates to better finish potential and longer wheel or tooling life.

Extremely High Removal Rates – 399C provides extremely high volumes of glass stock removal while maintaining both part quality and extended wheel life. This is particularly important during the grinding of glass. During those times when cut size of glass varies, the ability to remove more glass at the same line speed and not de-

velop burns, edge chips or diminished wheel life is extremely important.

Through controlled testing, 399C has been shown to increase in removal rates by as much as 30% over conventional glass and ceramic grinding fluids.

Controlled Settling – 399C is formulated with an efficient settling additive package. This package will allow the glass fines to settle out of the 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.

Starting Dilutions – 399C is to be used at a dilution of 30-60 to 1 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, 399C can last twice as long as normal coolants. To obtain maximum life from 399C, 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 399C, contact your local Ferro representative or your Distributor.

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Automated Dilution Control – 399C 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 – 399C can be custom formulated to meet special performance requirements, such as increased line speeds, extended wheel life, or swarf removal.

Contains No Silicone – 399C contains no silicone, diethanolnitrosamine, nitrites, phosphates, PCB's, PTBBA, mercurial, phenols, or mineral oil

Recommended Starting Dilutions

Beveling	30:1 to 60:1
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

Packaging and Handling

399C 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

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