



Highlights

- Polishes optical surfaces without scratches while delivering efficient material removal.
- Diamond and alumina abrasives with tightly controlled distribution ensure uniform, precise polishing.
- The slurry outperforms conventional cerium suspensions, reduces residual contamination, and improves UV / IR transmission.
- Industry-leading suspension chemistry that easily redisperses for consistent performance.
- Adjustable removal rate: dilution allows fine tuning of friction and polishing speed according to the application.

Diamond and alumina blended slurries

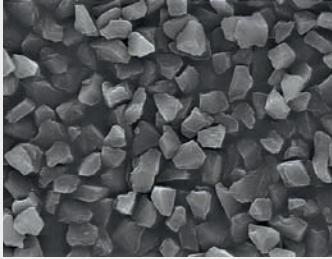
ULTRA-SOL® AlumaGem

ULTRA-SOL AlumaGem is an innovative polishing slurry that combines nanometric alumina abrasives with precisely graded diamond. Developed for high-precision optical materials such as calcium fluoride (CaF₂), magnesium Fluoride (MgF₂), and Nd:YAG, it enables the production of flawless, scratch-free surfaces while delivering high and controlled material removal rates.

ULTRA-SOL AlumaGem offers outstanding flexibility. Diamond types and sizes can be tailored to the specific requirements of each application, from pre-polishing to final finishing. Its stabilized formulation at pH 8.5 ensures consistent performance and excellent repeatability. The presence of alumina supports recirculation of the slurry and contributes to overall process stability.

Order code	Base material	pH	Concentration [% solids by weight]
ULTRA-SOL AlumaGem	Alumina / Diamond	8.5-9.5	9.5-11%

*Diamond particle type and size customizable based on process requirements.



ULTRA-SOL® diamond-alumina blends are excellent polishes for hard substrates such as SiC, as well as IR and optical materials.



Pureon offers a wide range of customized solutions. Get in touch with us.

Product specifications

Base material Aluminum Oxide, Diamond
Shelf life 12 months
Applications Fluoride and other crystalline materials

Order information

Packing 1 gal jugs (3.78 l)
Other sizes available upon request.
Unit of measure Gallon [gal]

Instructions

Safety To avoid skin or eye irritation, use appropriate personal protective equipment according to MSDS. Follow all MSDS, Safety datasheet, label precautions and industrial safety and hygiene practices when handling or using this product.

Homogenization For consistent performance, ensure that the suspension is completely homogenized prior to use. Suspensions can separate if stored over extended periods of time and if exposed to variable temperatures.

Dilution This slurry is designed as a ready-to-use product directly from the container. If the slurry is to be used in a diluted form, use only high-quality deionized water (> 18 M ohm) for the dilution. The product should be mixed periodically (10 to 20 minutes per day) by recirculation or mechanical stirring to ensure that the particles are uniformly suspended. To avoid possible scratching issues, storage and re-use of on-site diluted slurry is not recommended without proper mixing and filtration.

Due to the unique formulation of this slurry, pH adjustment is not recommended. For a different pH, please contact your Pureon representative.

Storage Recommended 4 °C – 38 °C / 39 °F and 100 °F

Products should be allowed to return to room temperature prior to use. Storage outside the recommended conditions may result in irreversible product damage. In the event of exposure outside of the specified conditions, please contact your local Pureon representative for recommendations.

Disposal Dispose of in accordance with all applicable local regulations.

Contact

sales@pureon.com
www.pureon.com

