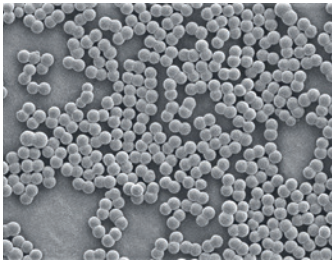


Lapping and polishing slurries



Colloidal silica slurry

**ULTRA-SOL® 500S3**



Pureon colloidal silica particles feature tight particle size distributions and industry leading lot-to-lot consistency.



Pureon ready-to-use slurries are available in customer-tailored formulations in a wide range of viscosities.

**Non-drying colloidal silica slurry for optical and IR materials**

ULTRA-SOL® 500S3 is a non-drying colloidal silica slurry designed for polishing a wide range of precision opto-electronic materials. A staple in any optician's arsenal, 500S3 has been an industry standard for over 20 years. The slurry's trademark blue color is now widely recognized by master opticians throughout the industry.

The ULTRA-SOL® 500S3 is a high-purity colloidal silica slurry with a specially designed alkaline dispersion. This reduces problems caused by colloidal silica particles drying, caking or crystallizing on exposed surfaces. The end result is superior surface finishes, reduced scratches, along with lowered cleaning costs, material staining, and waste. ULTRA-SOL® 500S3 is capable of producing surfaces of less than 5Å RMS in a pad process, and less than 1Å RMS in a pitch process. The 500S3 performs well in recirculation systems due to the robustness of the primary particle.

**Product specifications**

Base material .....Colloidal silica

Shelf life.....12 months

Applications .....Calcium fluoride, fused silica, polysilicon, silicon

Order code	Base material	Particle size [µm]	pH	Solids content [%]	Specific gravity
ULTRA-SOL® 200S	Colloidal Silica	0.03	9.5	24.0	1.20
ULTRA-SOL® 300K	Colloidal Silica	0.07	10.6	30.7	1.21
ULTRA-SOL® 500S	Colloidal Silica	0.07	9.9	40.5	1.32
ULTRA-SOL® 500S2	Colloidal Silica	0.07	9.9	30.7	1.21
ULTRA-SOL® 500S3	Colloidal Silica	0.07	9.9	30.7	1.21

**Contact**

sales@pureon.com

www.pureon.com/sales-contacts

**Order information****Packing**

1 gal jugs, 5 gal pails, and 55 gal drums. Other sizes available upon request.

**Unit of measure**

Gallon [gal]

**ULTRA-SOL® 500S3 highlights**

- Compatible with pads or pitch, on CPs, spindles, and CNC tools
- Cost-optimized version of the ULTRA-SOL® 500S
- Staple colloidal silica in optical markets with applicability to wide range of materials and processes
- Non-drying chemistry package significantly slows the drying and crystallization of silica particles on parts and tools, leading to better yields and easier cleanup



Pureon offers a wide range of customized solutions. More information can be found on [www.pureon.com/products/overview](http://www.pureon.com/products/overview)

**Instructions****Handling**

This material is a safe, aqueous based slurry. To avoid skin or eye irritation, however, handlers should use appropriate personal protective equipment including: rubber gloves, protective clothing, and eye protection. Follow all MSDS, Safety Data Sheet, and label precautions when handling this slurry. Also follow all appropriate industrial safety and hygiene practices when handling or using this product.

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, Pureon recommends using only high-quality deionized water (>18 Mohm) 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, it is recommended that the user not adjust the pH. If a different pH is required, please contact your Pureon Applications Engineer for assistance with your specific process need.

**Storage**

It is recommended that products be stored up to the expiration date at temperatures between 4 °C and 33 °C (40 °F and 90 °F). Products can be stored if kept above freezing (0 °C or 32 °F), and kept below 38 °C (100 °F) if prolonged exposure at temperatures at either extreme are avoided. Storage outside of the recommended conditions may result in irreversible product damage. In the event of exposure outside of the recommended conditions, please contact your Pureon representative for recommendations. In all cases the products should be allowed to return to room temperature prior to use.

**Disposal**

Dispose of in accordance with all applicable local regulations.

All information is non-binding and provided for information purposes only. Subject to change without notice.