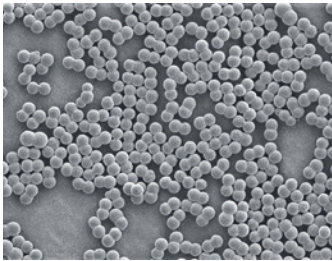


Lapping and polishing slurries



Colloidal silica slurry

ULTRA-SOL® S27



Original, sodium-stabilized colloidal silica for sapphire final polish.

Colloidal silica for sapphire, silicon carbide, and hard substrates

ULTRA-SOL® S27 is the slurry of choice for polishing hard substrates requiring consistent removal rate and a low roughness surface finish. The low friability, high density, and high surface area of the base colloidal silica particle provides repeatable polishing performance lot after lot. ULTRA-SOL® S27 was originally developed for critical sapphire slurry polishing processes where substrates were being sent to EPI processes.

It has been proven to be just as effective in polishing other hard substrates, such as silicon carbide, when a low roughness surface finish is required. The unique colloidal silica based formulation of ULTRA-SOL® S27 performs well in slurry recirculation systems due to the robustness of the particle, making it a perfect choice for all types of manufacturing environments.



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

Product specifications

Base materialColloidal silica
 Shelf life.....12 months
 ApplicationsCeramic, gallium arsenide, germanium, indium phosphide, silicon carbide

Order code	Base material	Particle size [µm]	pH	Solids content [%]	Specific gravity
ULTRA-SOL® S17	Colloidal silica	0.07	9.3	35.3	1.24
ULTRA-SOL® S27	Colloidal silica	0.07	9.3	50.0	1.24
ULTRA-SOL® S33V2	Colloidal silica	0.08	9.0	45.0	-
ULTRA-SOL® S33V2ND	Colloidal silica	0.08	9.0	45.0	-
ULTRA-SOL® S88	Colloidal silica	0.08	10.2	46.0	1.32

Contact

sales@pureon.com
www.pureon.com/sales-contacts

Order information

Packing

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

Unit of measure

Gallon [gal]

ULTRA-SOL® S27 highlights

- Concentrated version of S17, the original colloidal silica sapphire slurry, designed achieve fast polishing rates on various sapphire planes
- Tightly controlled particle size distribution results in excellent lot-to-lot consistency
- Compatible with sapphire wafers for LED, optical sapphire windows, and watch crystals
- Compatible with pads, pitch, spindles, or CNC tools



Pureon offers a wide range of customized solutions. More information can be found on www.pureon.com/products/overview

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 – 33 °C / 40 °F and 90 °F
Sort term	0 °C – 38 °C / 32 °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.

Disposal

Dispose of in accordance with all applicable local regulations.