SU-8 MicroSpray

Photoresist Aerosal Can

Description

Kayaku Advanced Material's aerosol spray can photoresists are well suited for a variety of micro-machining, and etching processes, requiring semi-conformal coatings on irregular or perforated substrates. SU-8 MicroSpray addresses many of the process and capital requirements for MEMS, microfluidics, opto-electronics and "one-up" printed circuit boards.

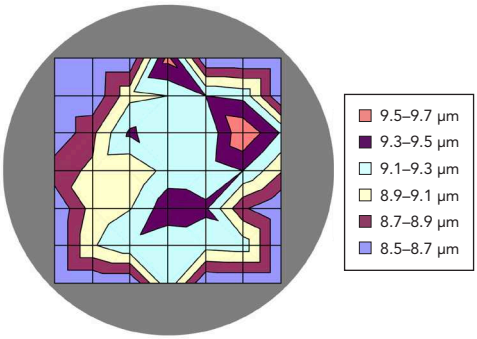
Applications

- Uniform coatings without spin coater tool
- Striation-free coatings over deep topography
- Perforated or irregular substrates
- Large substrates
- Microfluidic electrophoresis analysis
- Lab-on-Chip
- Patterned through-wafer vias
- "One up" PCBs
- Spray coater tool pre-evaluation
- Backside coatings
- Touch-up coatings

How to Use SU-8 MicroSpray

- Store can refrigerated for best use
- Place can at room temperature 1 hour prior to use
- Shake can vigorously 10 times
- Wait 5 minutes
- Make sure substrate is clean
- Use a spray distance of 3 inches from surface
- Spray surface with 6 passes and change direction of spray after 3 passes to form an overlapping pattern
- Wait 5 to 10 minutes (micro-bubbles will disappear)
- Bake coated substrate for 10 minutes at 95°C (200°F)
- Expose coated substrate to UV light (250 mJ/cm^2)
- Bake again for 3 minutes at 95°C (200°F)
- Develop for 5 minutes in SU-8 Developer
- Rinse and dry

Coating Uniformity



9 µm +/- 3% (100 mm wafer)	
Mean	9.14mm
Standard deviation	0.24 mm
% Variability	2.6%

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SU-8 MicroSpray Process Parameters

Substrate:	Silicon
Photoresist:	SU-8 MicroSpray
Bake:	10 minutes @ 95°C (200°F)
Coat:	Spray 6-9 right angle passes
Pause:	20°C/5-10 minutes
Soft bake:	10°C/95 minutes
Exposure:	EVG 620 350-450 nm, 400 mJ/cm^2
Develop:	SU-8 Developer 5 minutes

Handling

Consult Safety Data Sheet (SDS) for details on the handling procedures and product hazards prior to use. If you have any questions regarding handling precautions or product hazards, please email *productsafety@kayakuAM.com*.

Storage

Store upright in original sealed containers in a dry area between 10°C and 21°C (50-70°F). Keep away from sources of ignition, light, heat, oxidants, acids and reducers. Do not use product after the expiration date (13 months from date of manufacture).

Disposal

The material and its container must be disposed in accordance with all local, state, federal and/or international regulations.

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