OmniCoat

Adhesion Promoter/Release Layer

Description

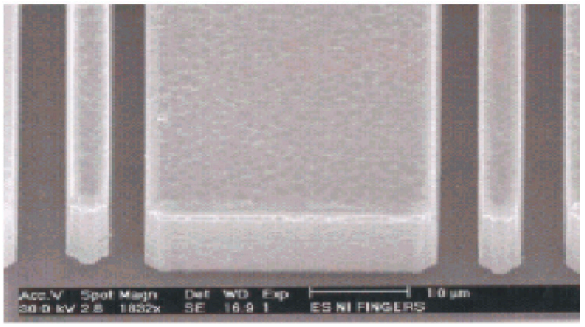
OmniCoat allows easy stripping of hard to remove photoresists and other materials. It also increases adhesion of SU-8 and SU-8 2000 resists.

Material Attributes

- Easy, fast, clean & safe removal
- Uses existing strippers and processes
- Produces a very thin film
- Applied by spin coating
- Adhesion promoter

Benefits

- Enables stripping of SU-8 and SU-8 2000 resists so that reworks can be done
- No highly dangerous wet chemistry or reactive gases required
- Minimizes or eliminates under plating
- No deposition layer required
- Improves adhesion to difficult substrates like Au, Cu and Quartz



Plated Nickel structure after removal of SU-8 using OmniCoat

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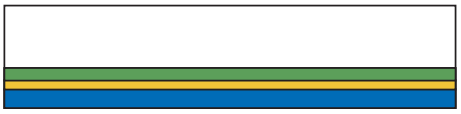
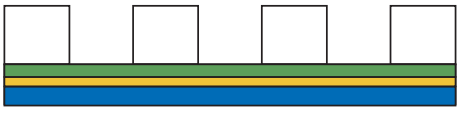
Processing Guidelines

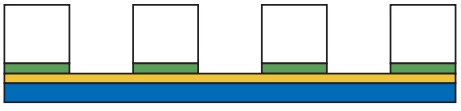
1. Coat and bake OmniCoat over seed layer



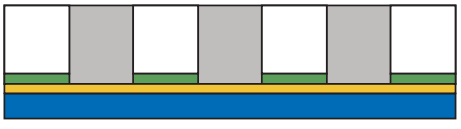
2. Coat and bake SU-8 or SU-8 2000



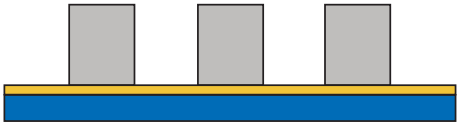
3. Expose and develop SU-8 or SU-8 2000



4. Develop (wet or dry) OmniCoat



5. Plate metal



6. Strip resist in Remover PG

Coat Release Layer

Dynamic dispense:	1–4 ml (depending on substrate diameter) of OmniCoat
Spin:	500 rpm for 5 seconds with acceleration of 100 rps 3000 rpm for 30 seconds with acceleration of 300 rps

Note: For effective removal a thickness of no less than 17 nm should be applied. Thicker coatings could be more effective depending on substrate type.

Bake:	200°C hot plate for 1 minute; allow substrate to cool to room temperature

Coat, Expose, PEB & Develop SU-8 or SU8-2000

Perform normal SU-8 processing according to the guidelines from the SU-8 datasheet.

Develop OmniCoat

O_2 Plasma removal:	Typical descum program Power – 100 watts Flow Rate – 35 sccm Pressure – 190 mTorr Time – 30 seconds
Wet removal:	MCC 101A Developer: Immerse for one minute with agitation. Rinse with DI water for 2 minutes. Microposit™ MF-319: Immerse for 30 seconds with agitation. Rinse with DI water for 2 minutes.

Other developers can be used. The process must be adjusted for different developer formulations. It may be beneficial to perform a short O_2 plasma flash descum after wet development.

Omnicoat Material and Equipment Handling

OmniCoat is compatible with glass, ceramic, unfilled polypropylene, high-density polyethylene, polytetrafluoroethylene, stainless steel and equivalent materials. OmniCoat is compatible with most commercial resist processing equipment.

Processing Environment for Omnicoat

For optimum results, use OmniCoat resists in a controlled environment:

Temperature	20-25°C ± 1°C (68-77° ± 2°F)
Relative humidity	35-45% ± 2%

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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 4°C and 27°C (40-80°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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