

## AP2210B

Positive Tone

Aqueous Developable Buffer Coat Material

AP2210B is an advanced buffer coat material incorporating Fujifilm's proprietary aqueous developable technology.

The material is differentiated by:

- Superior mechanical properties
- Excellent adhesion
- Fast photospeed
- High resolution

### Applications:

Device buffer coat /protective coat material.

Reduces mechanical, temperature and humidity stresses associated with larger and denser devices.

Provides protection to device surface during assembly and packaging in order to reduce assembly related device failures.

### Product Characteristics:

Positive tone, i-line and broadband sensitive

NMP free

Resolution 2 micron fuse window in a 9 micron film

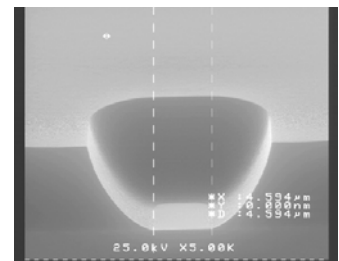
Cured Film Thicknesses from 2 – 10 microns

Self priming resulting in excellent adhesion

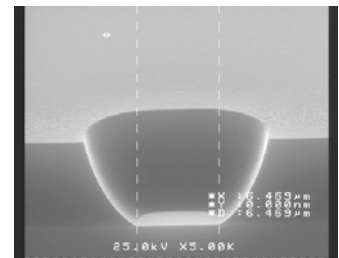
Patterned using standard TMAH photoresist developers

### Exposure Latitude

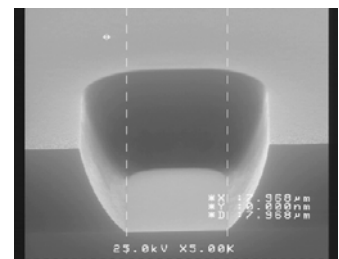
5 μm vias in a 11μm softbaked film



260mJ/cm<sup>2</sup>



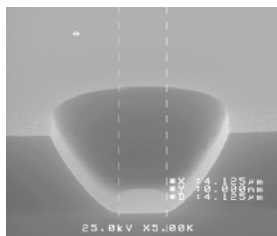
300mJ/cm<sup>2</sup>



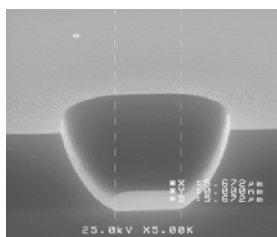
340mJ/cm<sup>2</sup>

## AP2210B Focus Latitude

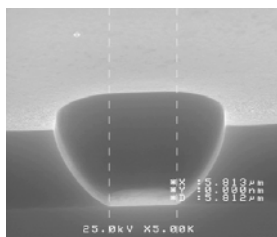
### 5µm Fuse window



-8 µm



-4 µm



0 µm

## AP2210B Typical Process Summary

	6 micron Process
Softbake Film Thickness	12
Spin Speed (rpm)/Time (sec)	1500/55
Softbake Temp (C)/ Time (min)	120C/4min
E1:1 i-line (mJ/cm2)	300-500
Development with OPD4262	2x30sec, double puddle
After Develop Film Thickness	7.9
Dark Film Loss (%)	34%
Cure Temp. (C)/ Time (hr)	350/1
Cured Film Thickness	6.4

## Typical Cured Film Properties

Property	Unit	350°C Cure
Tensile Strength at Break	MPa	147
Young's Modulus	GPa	2.4
Tensile Elongation at Break	%	77
Glass Transition Temperature	°C	325
Thermal Decomposition Temperature	°C	518
Coefficient of Thermal Expansion	ppm/°C	45
Dielectric Constant 1MHz; 0%-50% RH		3.1
Moisture Absorption @ 50%	%	<0.5

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### European Headquarters Fujifilm Electronic Materials (Europe) N.V.

Keetberglaan 1A  
Havennummer 1061  
B-2070 Zwijndrecht  
Belgium  
Telephone : 32-3-250-0511  
Fax : 32-3-252-4631

### Fujifilm Electronic Materials U.S.A., Inc.

6550 South Mountain Road  
Mesa, Arizona 85212  
U.S.A.  
Telephone : 1-480-987-7536  
Fax : 1-480-987-7104

### Worldwide Headquarters Fujifilm Electronic Materials, Co., Ltd.

15th Arai-BLDG, 6-19-20  
Jingumae Shibuya-Ku  
Tokyo 150-0001  
Japan  
Telephone : 81-3-3406-6911

### Fujifilm Electronic Materials U.S.A., Inc.

Quonset Point  
80 Circuit Drive  
North Kingstown, Rhode Island 02852  
U.S.A.  
Telephone : 1-800-553-6546

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www.fujifilm-ffem.com