

AP2210

Positive Tone

Aqueous Developable

Buffer Coat Material

AP2210 is an advanced buffer coat material incorporating Fujifilm's proprietary aqueous developable technology. The material is differentiated by:

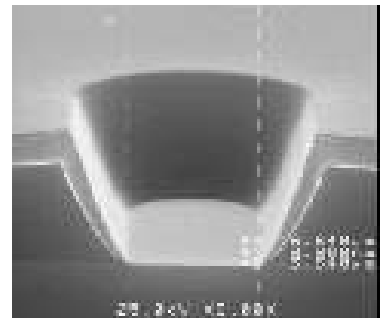
- Superior mechanical properties
- Excellent adhesion
- Fast photospeed
- High resolution

Applications:

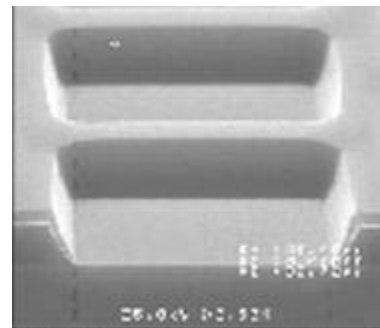
- Device buffer coat /protective coat material
- Reduces mechanical, temperature and humidity stresses associated with larger and denser devices
- Provides protection to device surface during assembly and packaging in order to reduce assembly related device failures

Product Characteristics:

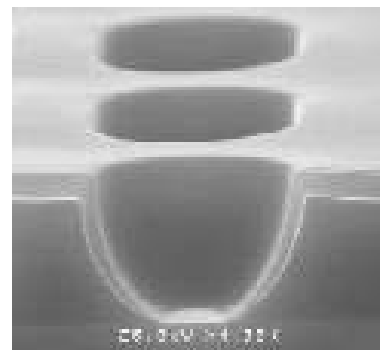
- Positive tone, i-line and broadband sensitive
- NMP free
- Resolution 2 micron fuse window in a 9 micron film
- Cured Film Thicknesses from 2 – 10 microns
- Self priming resulting in excellent adhesion
- Patterned using standard TMAH photoresist developers



3µm via in a 5.5µm cured film

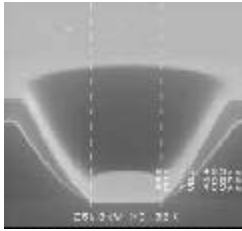


30µm via in a 5.5µm cured film

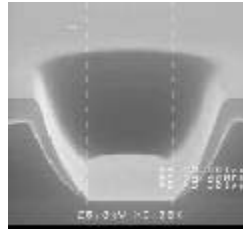


2µm via in a 9µm cured film

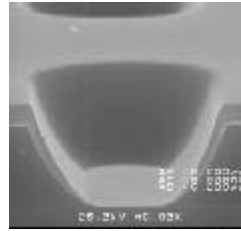
AP2210 Focus Latitude 3 μ m Fuse window



-8 μ m



-4 μ m



0 μ m

AP2210 Typical Process Summary

	6 micron Process
Softbake Film Thickness	12
Spin Speed (rpm)/Time (sec)	1500/55
Softbake Temp (C)/ Time (min)	115C/4min
E1:1 i-line (mJ/cm ²)	550
Development with OPD4262	2x20sec, 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 (350°C)

Property	Unit	
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	20
Dielectric Constant 1MHz; 0%-50% RH		3.1
Moisture Absorption @ 50%	%	<0.5



FUJIFILM Electronic Materials Co., Ltd.

15th Arai-Bldg.

19-20 Jingmae 6-Chome

Shibuya-ku, Tokyo 150-0001

Japan

Telephone: +81.3.3406.6911

Fax: +81.3.3498.0567

FUJIFILM Electronic Materials U.S. A., Inc.

80 Circuit Drive

North Kingstown, RI 02852

Telephone: +1.800.769.1234

Fax: +1.401.435.2621

FUJIFILM Electronic Materials (Europe) N.V.

Keetberglaan 1A

Havennymer 1061

B-2070 Zwijndrecht, Belgium

Telephone: +32.3.250.05.11

Fax: +32.3.252.46.31

This document and the information contained herein are offered solely for your consideration, investigation and verification. NO REPRESENTATIONS OR WARRANTIES, EXPRESS OR IMPLIED, OF MERCHANTABILITY OR OTHERWISE, ARE MADE OR CONTAINED HEREIN. Fujifilm Electronic Materials exclusive responsibility for any claims, including claims based on negligence, arising in connection with the information contained herein or the subsequent purchase, use, storage or handling of the product will in no event exceed Fujifilm Electronic Materials sales price for the product with respect to which damages are claimed. IN NO EVENT WILL FUJIFILM BE LIABLE FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES. User accepts full responsibility for compliance with all applicable Federal, state and local laws and regulations. Nothing contained herein will be construed to constitute permission or a recommendation to use the product in any process or formulation covered by a patent or a patent application owned by Fujifilm Electronic Materials or by others. No statements or representations which differ from the above shall be binding upon Fujifilm Electronic Materials unless contained in a duly executed written agreement.. These commodities, technology or software were exported from the United States in accordance with the Export Administration Regulations. Diversion contrary to U.S. law is prohibited. © 2005 Fujifilm Electronic Materials.