KYOCERA Chemical Corporation
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High Performance / Photosensitive Overcoat Material

To Meet Future Needs, Available New Photosensitive Resin for Excellent Resolution, Lower Cost and Large Size Wafer

Strong Points

CT4700 Standard Type (Nega type Photsensitive polyimide)

1) This is Standard Product and Possible to Get Pattern of 7μm in Case 5μm Final Film Thickness.
2) There are a Lot of Sales Results as Overcoat of Semiconductor Devices.

CT4103R Low cost type (Nega type Photsensitive polyimide)

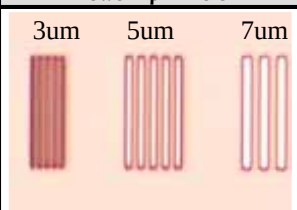
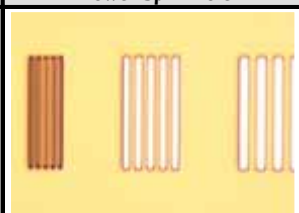
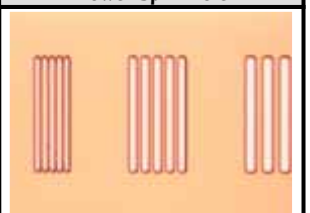
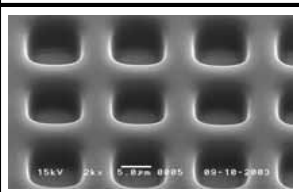
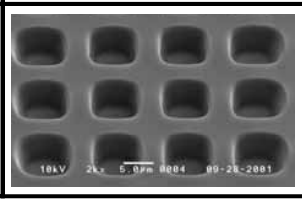
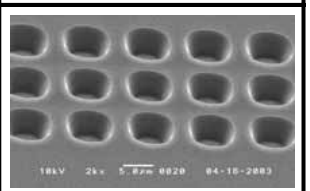
1) This is Standard Product and Possible to Realize Pattern of 5μm in Case 5μm Final Film Thickness.
2) Low-Cost Designed Model Compared with the Ester Type.

CT4160R New developed product (Posi type photosensitive heat resistance material)

1) This can be Developed by Alkali Solution, and the Finest Resolution (3μm) Pattern is Obtained.
2) Large Scale Wafer Applicable due to Lower Warpage.

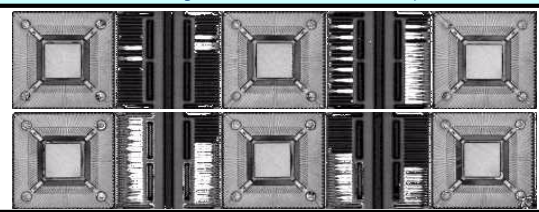
Characteristic Table of CT4000 series

Items	Unit	CT4700	CT4103R	CT4160
Resolution	um	7	5	3
Pattern size (3 sigma)/8inch	um	1.2	1.8	1.2
Exposure Energy	mJ/cm2	200	200	300
Curing Temperature	°C	320	320	270
Wafer Warpage 8inch	um	51	43	12
Adhesive Property	PCT 100h	0/100	0/100	0/100

Pattern/Products	CT4700 Upper 5μm L/S Lower 7μm Hole	CT4103R Upper 5μm L/S Lower 5μm Hole	CT4160R Upper 3,5μm L/S Lower 3μm Hole
L/S Microscope Photograph			
Hole SEM Photograph			

Product reliability of CT4160(SAT)
(PKG Evaluation of Kyocera Chemical)

Init.
(Immediately after Molding)
Excellent



85 °C /85%RH 168h
IR,260 °C
Level-1
Excellent