

Durimide™ 7320

Photosensitive Polyimide Precursor

Negative tone, copper compatible photosensitive polyimide formulation designed with a unique structure and sensitizer that gives it the following characteristics:

- Enhanced resolution
- Wide process latitude
- Self priming – no external adhesion promotor required
- Excellent adhesion
- High Tg

Superior mechanical property retention after extended pressure cooker test

Type	Viscosity	Cured Film Thickness
Durimide™ 7320	6100 cSt	11-25+µm

Compatible Ancillary Products:

Developer/Rinse Combinations: HTR-D2 / RER 600

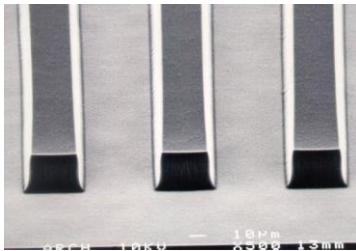
Back Side Rinse: HTR-D2

Edge Bead Remover: HTR-D2

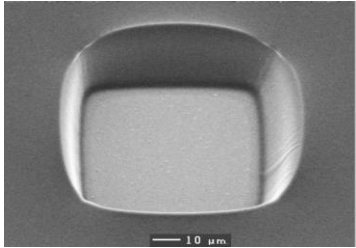
Stripper Product: MS 3001 (NMP free)
NMP

Typical cured film properties of Durimide™ 7320

Material Property	Unit	Cured at 350°C
Tensile Strength	MPa	215
Young's Modulus	GPa	2.5
Tensile Elongation	%	85
Glass Transition Temperature	°C	285
Thermal Decomposition Temperature	°C	525
Coefficient of Thermal Expansion	ppm/°C	55
Dielectric Constant		3.2-3.3
Moisture Absorption@50% RH	%	1.08



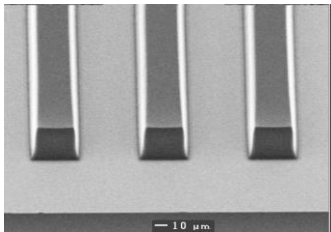
40 µm line/spaces



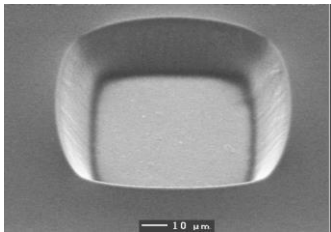
60 µm via

Top view : 1.0 µm sputtered Copper,
Cured Film Thickness ~ 19 µm,
E : 150 mJ/cm², broadband exposure

Bottom view : Electroplated Copper,
Cured Film Thickness ~ 20 µm,
E : 150 mJ/cm², broadband exposure



40 µm line/spaces



60 µm via

Durimide™ 7320 process window

Substrate: All types
Silicon, SiO_xN_y, SiC,
epoxy, Al, Cu,
Ag ,...

PI Thickness: 11 to 25+ µm
Soft Bake: Depending film
thickness range
100-110°C / 4-6 min

Exposure Tool: Mask aligner
Stepper
BB or i-line
h-line
LDI 405 nm

Exp. Range: 130-340 mJ/cm²
Focus Range: 3-8 µm into film

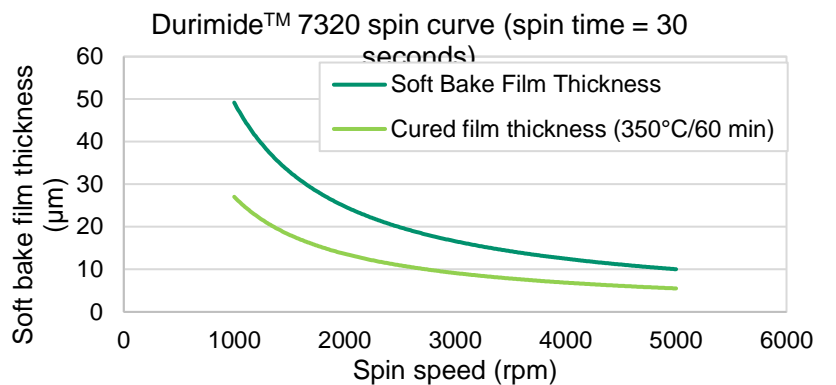
Post Exposure Delay: 30 min @ RT
or
Post Exposure Bake: 60 sec @ 50°C

Dev. process: Atomized spray,
continuous spray or
multiple puddle
development

Developer/Overlap/ Rinse:
HTR-D2/RER 600
30"/10"/15"

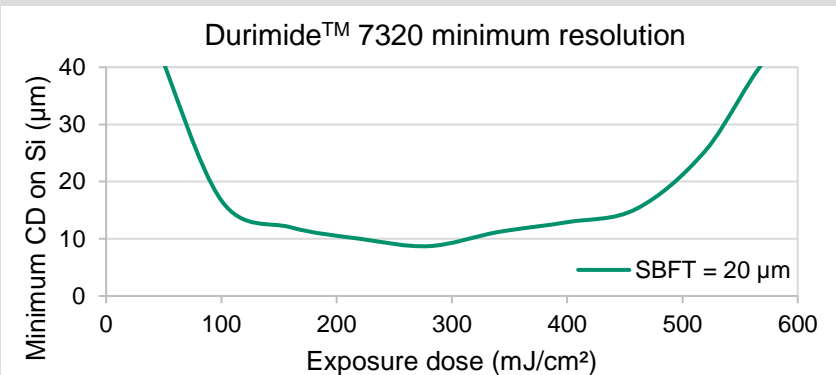
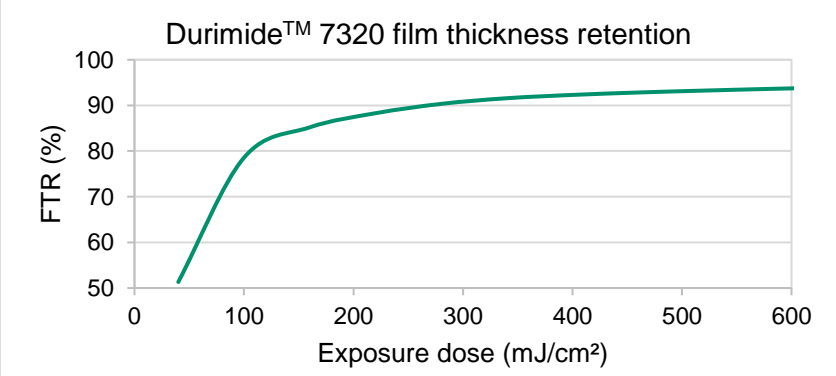
Final cure conditions:
Cure temp: 350 to 420°C for 60 min

Descum:
Short O₂-plasma



Recommended spin time is 30-60 seconds. Film thickness can be varied by changing the spin-time and spin-speed.

Durimide™ 7300 undergoes a shrinkage of approx. 45% from soft bake to cure.



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