



TAISIC MATERIALS CORP.

盛新材料科技股份有限公司

Taisic Materials Corp.

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Rev. 1.3

200mm N type substrate	P-MOS	P-SBD	Dummy (樣品級)	Mechanical (機械級)
Type	4H N-type SiC	4H N-type SiC	4H N-type SiC	4H N-type SiC
Material type	SiC-N Conductive	SiC-N Conductive	SiC-N Conductive	SiC-N Conductive
Diameter	200 ± 0.25 mm	200 ± 0.25 mm	200 ± 0.25 mm	200 ± 0.25 mm
Thickness(off-axis)	500 ± 25um	500 ± 25um	500 ± 25um	500 ± 25um
Dopant	N	N	N	N
Resistivity (Ohm-cm)	0.015~0.025	0.015~0.025	N/A	N/A
Surface orientation	4.0° toward[11-20], ± 0.5°	4.0° toward[11-20], ± 0.5°	4.0° toward[11-20], ± 0.5°	4.0° toward[11-20], ± 0.5°
Si-face	CMP, Ra ≤ 0.2 nm	CMP, Ra ≤ 0.2 nm	CMP, Ra ≤ 0.2 nm	Polished
C-face	Polished	Polished	Polished	Polished
Bisector of notch depth	1~1.5mm	1~1.5mm	1~1.5mm	1~1.5mm
Bisector of notch orientation	[1-100] ± 5°	[1-100] ± 5°	[1-100] ± 5°	[1-100] ± 5°
TTV	≤ 6	≤ 10	≤ 10 um	N/A
LTV(10 X 10mm) (LTV_Avg)	≤ 2	≤ 3	≤ 5um	N/A
Warp	≤ 40 um	≤ 40 um	≤ 70 um	N/A
Bow (±)	≤ 25 um	≤ 25 um	≤ 65 um	N/A
Crack by high intensity light	None permitted	None permitted	None permitted	N/A
Scratch by optical surface inspection	≤ 5 scratches (total length ≤ 0.5Diameter)	≤ 5 scratches (total length ≤ 0.5Diameter)	≤ 5 scratches (total length ≤ 1.5Diameter)	N/A
Particle	≤ 100 ea/wafer(size ≥ 0.3um)	≤ 100 ea/wafer(size ≥ 0.3um)	N/A	N/A
Micropipe Density (pcs/cm ²)	≤ 0.2 ea/cm ²	≤ 1 ea/cm ²	≤ 10 ea/cm ²	N/A
TSD (pcs/cm ²)	≤ 300	≤ 1000	N/A	N/A
TED (pcs/cm ²)	≤ 5000	≤ 8000	N/A	N/A
BPD (pcs/cm ²)	≤ 1000	≤ 2000	N/A	N/A
Chipping at the wafer edge	None	None	N/A	N/A
Polytype areas by diffuse lighting	None	None	≤ 5%	N/A
HEX plates by high intensity light	None	None	None	N/A
Contamination (stains/discolored/mottled/cloudy) by high intensity light	≤ 0.05 %(area)	≤ 0.05 %(area)	area ≤ 5%	N/A
SF %	≤ 0.5 %(area)	≤ 1 %(area)	N/A	
Metal content	≤ 1E11 atoms/cm ²	≤ 1E11 atoms/cm ²	N/A	N/A
Back marking	Right side of Notch	Right side of Notch	Right side of Notch	Right side of Notch
Edge	Chamfer	Chamfer	Chamfer	Chamfer
Packaging	Epi-ready with vacuum packaging, Multi-wafer of Single wafer cassette packaging	Epi-ready with vacuum packaging, Multi-wafer of Single wafer cassette packaging	Epi-ready with vacuum packaging, Multi-wafer of Single wafer cassette packaging	Multi-wafer of Single wafer cassette packaging

備註：N/A指無要求，未提及項目遵從SEMI-STD。

Notes: "N/A" means no request. Item not mentioned may refer to SEMI-STD.