



JING CHENG MATERIAL CO., LTD.

6 inch 4H N-type Silicon Carbide Ingot Specification

序號 NO.	項目 Items	單位 unit	Production spec	Dummy spec	Mechanical grade
1	晶型 Polytype	--	4H	4H	4H
2	電阻率 Resistivity	ohm·cm	0.015-0.025	0.015~0.028	$\leq 0.040\Omega\text{cm}$
3	直徑 Diameter	mm	150.25±0.25	150.25±0.25	150.25±0.25
4	表面晶向偏離度 surface orientation error	Degree	4° toward <11-20>± 0.2°	4° toward <11-20>± 0.2°	4° toward <11-20>± 0.2°
5	主參考面晶向 Primary flat orientation	Degree	<1-100>±5	<1-100>±5	<1-100>±5
6	主參考面長度 Primary flat length	mm	47.5±1.5	47.5±1.5	47.5±1.5
7	次參考面晶向 Secondary flat orientation	Degree	N/A	N/A	N/A
8	次參考面長度 Secondary flat length	mm	N/A	N/A	N/A
9	微管密度 Micropipe density	ea/cm ²	≤ 1	≤ 10	N/A
10	Basal Plane Dislocation BPD	ea/cm ²	≤ 1500	N/A	N/A
11	Threading Screwing Dislocation TSD	ea/cm ²	≤ 400	N/A	N/A
12	多晶型 Polytype areas	--	None Permitted	$\leq 5\%$ area	N/A
13	崩邊 Edge chips by diffuse lighting	ea	≤ 2 , $\leq 1\text{mm}$ width and depth	≤ 2 , $\leq 1\text{mm}$ width and depth	N/A
14	邊緣裂紋 Edge Cracks	mm	≤ 2 , $\leq 1\text{mm/ea}$	≤ 2 , $\leq 1\text{mm/ea}$	N/A