

# 8インチ N型 SiC インゴット

| Parameter                             | Unit            | Specification Value               |                                                                                                                                                                                                                         | Remark |
|---------------------------------------|-----------------|-----------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|
| Grade                                 |                 | Production Grade                  | Dummy Grade                                                                                                                                                                                                             |        |
| Diameter                              | mm              | 200.0±0.25                        | 200.0 ±0.5                                                                                                                                                                                                              |        |
| Dopant                                |                 | Nitrogen                          |                                                                                                                                                                                                                         |        |
| Surface Orientation                   |                 | 4 °toward<11-20>± 0.25°           | 4 °toward<11-20>± 0.5°                                                                                                                                                                                                  |        |
| Orientation Notch                     |                 | [1-100] direction± 2°             |                                                                                                                                                                                                                         |        |
| Orientation Notch Depth               | mm              | 1-1.25                            |                                                                                                                                                                                                                         |        |
| Micropipe Density                     | cm <sup>2</sup> | ≤ 0.2                             | ≤ 5                                                                                                                                                                                                                     |        |
| EPD                                   | cm <sup>2</sup> | ≤5000                             | NA                                                                                                                                                                                                                      |        |
| BPD                                   | cm <sup>2</sup> | ≤1000                             | NA                                                                                                                                                                                                                      |        |
| TED                                   | cm <sup>2</sup> | ≤4000                             | NA                                                                                                                                                                                                                      |        |
| TSD                                   | cm <sup>2</sup> | ≤50                               | NA                                                                                                                                                                                                                      |        |
| Resistivity (ave)                     | Ω·cm            | 0.015-0.025                       | 0.015-0.028                                                                                                                                                                                                             |        |
| Thickness                             | mm              | ≥10                               |                                                                                                                                                                                                                         |        |
| Edge Chips (No EE)                    | mm              | 0/<0.2mm                          | None greater than 0.5 mm width or depth. No limit on chips below 0.5mm width and depth.                                                                                                                                 |        |
| Ra_on_as_cut_surface_dome_side        |                 | ≤ 5 μm for as-cut flat surface    |                                                                                                                                                                                                                         |        |
| Ra_on_as_cut_surface_seed_side        |                 | ≤ 5 μm for as-cut flat surface    |                                                                                                                                                                                                                         |        |
| Hex Plates by high-intensity light    |                 | None                              | Dimensions <2mm, accumulative area <5%                                                                                                                                                                                  |        |
| Polytype Area by high-intensity light |                 | None                              | accumulative area <10%                                                                                                                                                                                                  |        |
| Cracks by high-intensity light        |                 | None                              | None                                                                                                                                                                                                                    |        |
| Surface requirement                   | μm/nm           | Flatness ≤5μm, parallelism ≤ 20μm | For laser cutting: flatness≤5μm, parallelism≤20μm, surface roughness≤30nm<br>Wire cutting: flatness≤ 5μm, no requirement for parallelism and roughness, 4° toward<11-20>± 0.5° for C-plane, no requirement for Si plane |        |