

# NORSTEL<sup>★</sup>

Norstel's commercial product range includes 50.8mm, 76.2mm and 100mm diameter 4H Semi-Insulating Silicon Carbide (SiC) substrates that are available in on-axis as well as *custom defined off-axis* orientation. Norstel's unique and patented HTCVD crystal growth technology is the key enabler to purer products combining high and uniform resistivity with a very low defect density.

## STANDARD SPECIFICATION FOR 100MM DIAMETER ON-AXIS SEMI-INSULATING SiC SUBSTRATES:

Diameter:	100.0 +0.0/-0.2 mm
Polytype:	4H
Orientation (center point):	{0001} ±0.25 deg
Type:	Semi-insulating (HTCVD high purity)
Resistivity:	≥ 1E7 Ohm-cm
Thickness:	500 ± 25 μm
TTV:	≤ 5 μm
LTV:	≤ 2 μm
Warp:	≤ 45 μm
MPD (3mm edge exclusion):	≤ 5 cm <sup>-2</sup>
Surface finish (Si-face):	Epi-ready (CMP) Rq ≤ 0.2 nm
Surface finish (C-face):	Optical Rq ≤ 3.0 nm

Ref: 252-B-Q January 2017

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