



10 mm x 10 mm C-plane ultra-high-resistivity semi- insulating AMMONO-GaN substrate.  
The substrate is sliced from a mono-crystalline bulk material grown by ammonothermal method.

### TECHNICAL SPECIFICATION

DESCRIPTION	UNIT	VALUE
<b>General specification</b>		
Orientation		(0001) C plane
Thickness	μm	350 (±50)
Dimension(s) (h x w)	mm	10 (±0,5) x 10 (±0,5)
Primary Flat (PF)	mm	3 (±0,5)
Secondary Flat (SF)	mm	1,5 (±0,5)
Bow	μm	≤ 10
Total Thickness Variation (TTV)	μm	≤ 20

### Structural specification

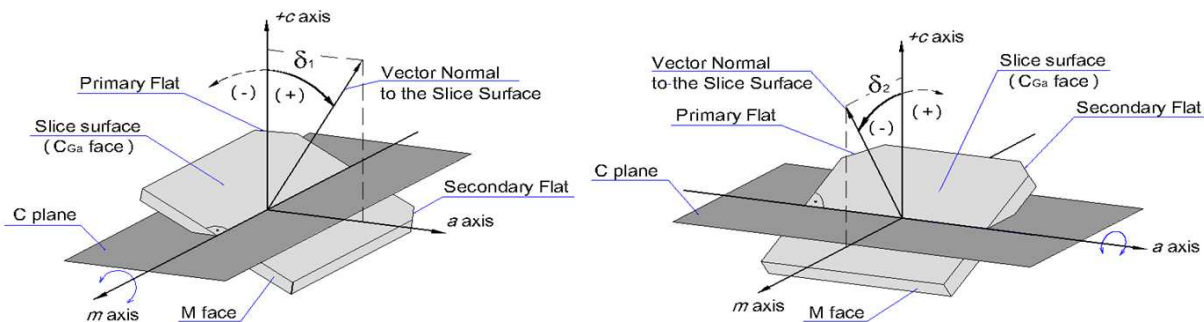
Etch Pit Density (EPD)	cm <sup>-2</sup>	< 5 x 10 <sup>4</sup>
FWHM of X-ray rocking curve, epi-ready surface at 100 μm x 100 μm slit	arcsec	~ 20
Macrodefects		none

### Electrical specification

Conductivity		SI
Carrier concentration	cm <sup>-3</sup>	-
Resistivity	Ω*cm	10 <sup>9</sup> - 10 <sup>12</sup>
Mobility	cm <sup>2</sup> /V*s	-

### MISORIENTATION

(measured in the center of the substrate)

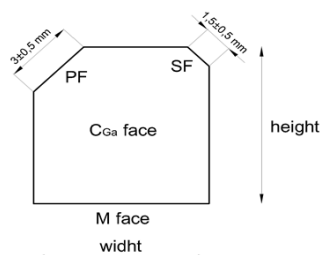


Off M face		deg	0 (±0,25)
C face	angle $\delta_1$	deg	±0,35 (±0,20)
	angle $\delta_2$	deg	±0 (±0,20)

### SURFACE PREPARATION

Front side		Epi-ready polished (RMS < 0,5 nm)
Back side		Roughly polished

### SUBSTRATE SHAPE



Note: The information given above may be subject to change at any time without notice. This leaflet is not an offer within the meaning of sales or commercial law. The AMMONO-GaN substrates are offered for sale under Ammono's General Terms and Conditions.