

 ES2-GSA SAPPHIRE
BLANKS



900 E. GREEN STREET, #A / BENSENVILLE, ILLINOIS 60106
PHONE 847.295.7000 / FAX 847.295.7555
sales@rubicon-es2.com

WWW.RUBICON-ES2.COM

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Sapphire As Cut Wafers and As Lapped Wafers are the series of products after the ingot fabrication process and still offer the same optical quality as ingot products. Rubicon offers a variety of orientation tilt, thickness and edge bevel profiles, giving customers flexibility to design to it's unique specifications. Blank wafers are supplied "As Cut" and "As Lapped" surface finish.

Material	ES2 High Purity Sapphire (99.999%)	
Bubble Color	None by visual inspection under high intensity light	
Grain Boundary/Lineage	None by visual inspection under polarized light	
Orientation	C -Plane (0001) A -Plane (11-20) R -Plane (10-12) M -Plane (10-10) Random	
Orientation Tilt Tolerance	Customer Preference up to 6" up to 8"	$\pm 0.05^\circ$ $\pm 0.15^\circ$
Diameter	Up to 300 mm	
Warp	As Cut Wafers As Lapped Wafers	Up to ≤ 60 μm Up to ≤ 20 μm
TTV	As Cut Wafers As Lapped Wafers	Up to ≤ 40 μm Up to ≤ 15 μm
Thickness Tolerance	Customer Preference As Cut Wafers As Lapped Wafers	Up to ± 30 μm Up to ± 15 μm
Surface Finish	As Cut Wafers As Lapped Wafers	$R_a \leq 1.0$ μm $R_a \leq 0.8$ μm
Available Option	Edge Bevel (Lapped Finish Only) Primary Orientation Flat Secondary Orientation Flat	

Custom Specifications not listed above are also available

