

Product Introduction

Our sapphire wafers are available in diameters from 50.8mm (2") to 200mm (8"), with thickness ranging from 430µm to 1300µm depending on size. Offered in C, R, M, and A crystal orientations with double-side or single-side polished surfaces, these wafers feature exceptional surface quality ( $Ra \leq 0.3nm$ ), low warp ( $\leq 10\mu m$ ), and tight TTV control( $\leq 3\mu m$ ), making them a reliable substrate for optoelectronic and optical applications.

Applications

- LED substrates (particularly C-plane orientation)
- Optical windows and lenses for high-durability applications
- Substrates for GaN epitaxial growth
- Semiconductor and MEMS device carriers requiring high mechanical and chemical stability

| SAPPHIRE SPECIFICATIONS |                                             |             |             |             |
|-------------------------|---------------------------------------------|-------------|-------------|-------------|
| DIAMETER                | 50.8 ± 0.1MM                                | 100 ± 0.1MM | 150 ± 0.1MM | 200 ± 0.1MM |
| Thickness               | 430 ± 25µm                                  | 650 ± 25µm  | 1300 ± 25µm | 1300 ± 25µm |
| Ra                      | ≤0.3nm                                      | ≤0.3nm      | ≤0.3nm      | ≤0.3nm      |
| Warp                    | ≤10µm                                       | ≤10µm       | ≤10µm       | ≤10µm       |
| TTV                     | ≤3µm                                        | ≤3µm        | ≤3µm        | ≤3µm        |
| Crystal Orientation     | C Side / R Side / M Side / A Side           |             |             |             |
| Suface                  | Double Side Polished / Single Side Polished |             |             |             |
| Edge                    | 45° chamfer                                 |             |             |             |