# Ge Substrate

Germanium (Ge) is an important semiconductor substrate material with excellent performance characteristics including electron mobility and hole mobility. Ge substrates are used for Concentrated Photovoltaic cells (CPV), Space solar cells and ultra-high brightness LEDs.

Vital Materials provides Ge substrates with Low EPD or Zero EPD from 2”to 6”. Substrates with non-standard thicknesses and wafer orientations are also available upon request.

| | Unit | Semiconductor Specifications | |
|---|---|---|---|
| Crystal Growth Method | | CZ / VGF | |
| Conduct Type | | n-type | p-type |
| Dopant | | Sb | Ga |
| Dimension | inch | 2", 3", 4" and 6" | 2", 3", 4" and 6" |
| Wafer Orientation* | | (100)±0.5° | (100)±0.5° |
| OF/IF | | US, EJ | US, EJ |
| Resistivity (at RT) | ohm.cm | 0.002-40 | 0.002-0.005 |
| Etch Pit Density (EPD) | /cm² | - | 0 |
| Laser Marking | | Upon request | |
| Thickness* | µm | (175-500)±25 | |
| TTV | µm | ⩽15 | ⩽15 |
| Warp | µm | ⩽25 | ⩽25 |
| Surface | Side1<br>Side2 | Polished<br>Etched/Grinding | Polished<br>Etched/Grinding |
| Epi-ready | | Yes | |
| Package | | Cassette or single wafer container | |

* Wafer Orientation and Thickness are available upon request

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