



WSCTM Wafer Single Crystal diamond

Innovative single crystal synthetic diamond solutions for improved system performance, stability and device life

Element Six (E6) has worked in collaboration with Orbray to produce a new range of single crystal synthetic diamond wafers that can be used as advanced heat spreader materials, providing greater device performance, increased device life, and reduced cooling requirements. This material is suitable for direct bonding at wafer level.

Thermal management specifications:

- Thermal conductivity grades: $>2200 \text{ W m}^{-1} \text{ K}^{-1}$ and $>2000 \text{ W m}^{-1} \text{ K}^{-1}$
- Size: 25 mm diameter x 0.5 mm thickness
- Surface roughness (Ra): $<0.5 \text{ nm}$
- Flatness (PV): $<2 \text{ }\mu\text{m}$

Future applications:

- Diamond electronics
- Substrates for epitaxy
- Optical windows
- Precision tools

Different sizes also available, please enquire.

For more information about Element Six:

E technologies@e6.com
T +44 1344 638 200
W e6.com | e6cvd.com

For more information about Orbray:

E diamond-sales@orbray.com
T +81 3 3919 0101
W orbray.com