

(II) Applications of Major Substances by Shapes (No.2)

Shape Substance	Single Crystal	Sintered or Amorphous	Powder or Through-Hole	Thin Film	Fiber	Composite or Bonded
Cadmium Sulphide CdS	•Compound semiconductor	•Fine powder sintered material (Cd <sup>2+</sup> ion sensor)	•Pigment •Fluorescencer	-	-	•Solar cell (bonded with Cu <sub>2</sub> S)
Silicon Nitride Si <sub>3</sub> N <sub>4</sub>	-	•Thermal resistant fortifier •Thermal resistant vessel •Refractory	-	•Ceramic coating •Insulation film for IC	-	-
Silicon Carbide SiC	-	•Thermal resistant fortifier •Thermal resistant vessel •Refractory	•Abrasives •Grinding material	-	•Thermal resistant insulation material •Reinforcing material for cermet	•Whetstone •Cermet
Carbon (diamond, graphite, amorphous) C	•Jewelry (diamond)	•Cutting tool (diamond) •Thermal resistant vessel (graphite) •Electric wave absorber	•Abrasives (diamond) •Grinding material (diamond) •Lubricant (graphite)	-	•Carbon fiber (amorphous)	•Cutting tool •Composite with metal on resin
Silicon Oxide SiO <sub>2</sub>	•Crystal oscillator	•Mask substrate for IC •Quartz crucible	-	-	•Reinforcer for glass fiber •Optic communi- cation fiber (super high strength)	•Glass fiber •FRP
Ferrite (ion oxide)	•Magnetic head	•Magnetic head •Magnet core (soft) •Magnet (hard)	•Powder for magnetic tape (needle powder) •Electric wave absorber	•Magnetic tape	-	•Magnetic tape
Boron Nitride BN	•Cutter/grinder for precise processing	•Cutting tool •Wire draw dice tool	•Sheathed thermo-couple insulation •Crucible	•Lubricant •Electric insulation •Varistor •EL device	•Composite material	-