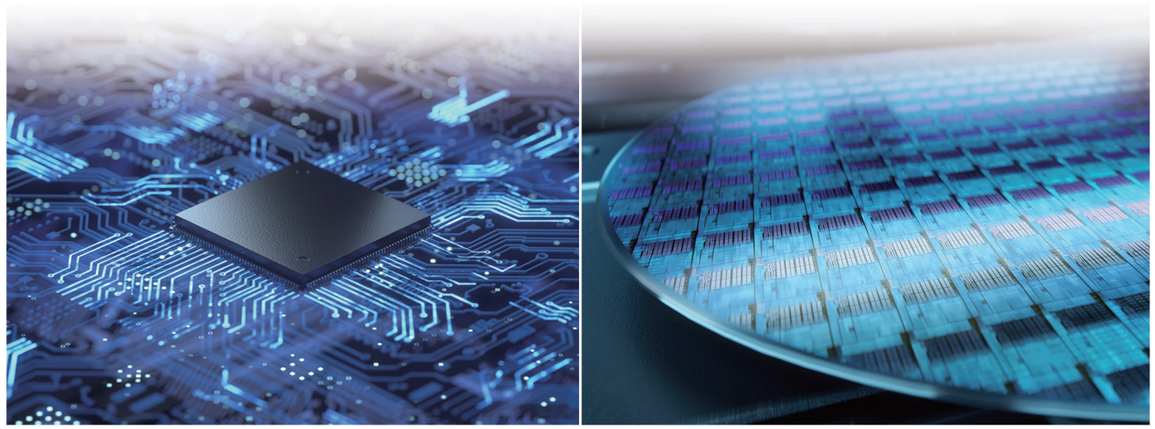
LOTEC - MD

High Purity Cordierite

High-purity materials for reliable key components



Features

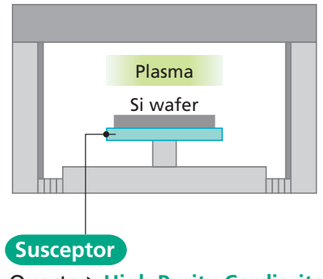
1. High Purity Material
2. Low thermal expansion coefficient
3. Excellent Plasma resistance
4. Light weight

Benefits

1. Low replacement frequency by excellent plasma corrosion
2. Reducing detect rates by extremely cutting down impurity contamination
3. Improving throughput by excellent thermal shock resistance

Applications

- Susceptor (Wafer Holder)
- Thermal resistant parts



Quartz ▶ **High Purity Cordierite**

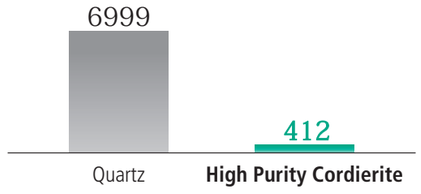
Electric melting technology

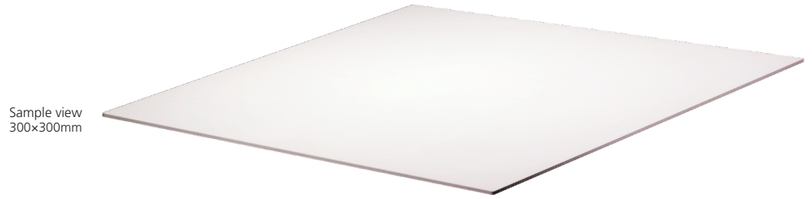
- Unique technologies(AGC)
  Manufacturing technology for refractory(used in glass furnace)
- Raw material powder produced by electric melting

Plasma resistance

Etching rate(nm)

＜Condition＞
CF4gas, 350W,
10Pa, 130min





Characteristics of materials

Chemical Composition(%)	SiO_2	51
	Al_2O_3	35
	MgO	14
	Others	≦1
Density(g/cm³)	R.T.	2.53
Bending Strength (MPa)	R.T.	200
	1000℃	160
Young's modulus (GPa)	R.T.	135
	1000℃	125
Coefficient of linear thermal expansion /CTE (×10⁻⁶/K)	40～100℃	0.1
	40～300℃	0.4
	40～1000℃	2.1
Thermal Conductivity (W/m・K)	R.T.	3.5

* The data shown above are reference values, not guaranteed values.

Impurity concentration

Oxide	unit : ppm
TiO_2	250
CuO	8
Fe_2O_3	858
NiO	32
Na_2O	3235
K_2O	125
CaO	1147
La_2O_3	14
ZnO	55