



Semiconductor Flame Fused Quartz Ingot

I. Application

Semiconductor flame fused ingot is manufactured with high purity quartz sand by oxy-hydrogen flame fusion process. It is utilized as basic high quality quartz material in semiconductor applications.



II. Characteristics

Semiconductor flame fused ingot features superior purity and can meet different optical requirements.

III. Code

PQ870、PQ871E

IV. Typical Size

Unit: mm

Diameter	Height
100-800	100-2000

V. Physical & Chemical Properties

i. Trace Elements

Unit: ppm

Code	Criteria	Al	Ca	Cr	Cu	Fe	K	Li	Mg	Mn	Na	Ti	Zr
PQ870	Typical	0.09	0.02	<0.01	<0.01	0.02	0.02	<0.01	0.02	<0.01	0.02	0.05	<0.01
PQ871E	Typical	13	0.5	<0.05	<0.05	0.1	0.1	0.3	0.05	0.05	0.1	1.3	1
	Maximum	19	1	0.1	0.1	0.5	1	1	0.2	0.2	1	2	2



ii. OH Content

PQ870、PQ871E

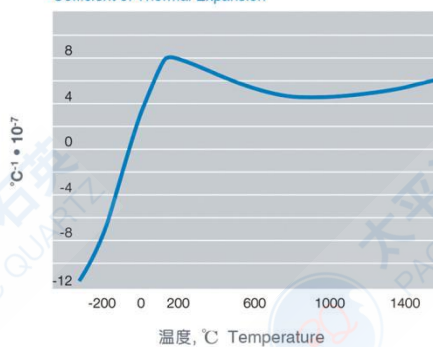
OH $\approx$ 200ppm

iii. Physical Properties

Item	Index Value
Density (g/cm ³)	2.2
Heat Conductivity (w/m·k, 1000°C)	2.28
Coefficient of Thermal Expansion (°C ⁻¹ , 1000°C)	5.5 $\times$ 10 ⁻⁷
Softening Point (°C)	1670
Annealing Point (°C)	1210
Strain Point (°C)	1110

iv. Coefficient of Thermal Expansion & Viscosity

膨胀系数
Coefficient of Thermal Expansion



粘度
Viscosity

