

Opaque quartz plate

Application

Electrical heater , Solar ,

Heat Insulation and other industry use

Characteristic

High purity , Thermal Stability , Erosion Resistance , Insulativity



JNC Quartz use the opaque quartz ingot to cut and process to different quartz product for Thermal insulators in the shape of flanges, spacers and Plates

NC-W00

NC-W00 is an opaque high purity quartz glass. Evenly distributed, micron-sized pores yield excellent diffuse reflection and low transmission from UV to IR radiation. Heat radiation is efficiently blocked by only a few mm of NC-W00 bulk material.



The material density of NC-W00 is very close to the density of clear fused quartz. The unique microstructure results in a very smooth surface finish after flame polishing. Therefore, flame polished NC-W00 offers good sealing properties. Although the durability of NC-W00 is improved compared to other opaque material when exposed to HF acid.

NC-W00 features the typical viscosity and thermal properties of high purity quartz glass.

Due to its high density

NC-W00 can be easily welded to clear fused quartz with excellent welding seam

quality. The mechanical strength

is almost equivalent to clear fused quartz and superior to most competing materials.

The Max opaque quartz disc (NC-W00) OD900mm*T20mm



NC-U300

JNC Quartz also use another efficient cost technology to produce the square and round opaque quartz plate for heat insulation

The max square plate L1000*W500*T10-25

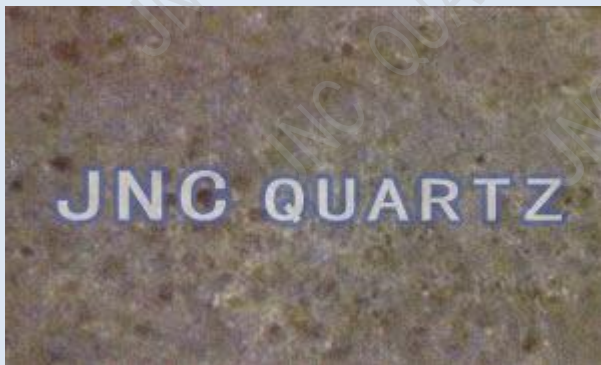
The max round disc OD600*T10-25



Chemical element composition (Typical) ppm

	Al	Fe	Ca	Mg	Ti	Ni	Mn	Cu	Li	Na	K	B	Co	OH
NC-W00	25	0.5	0.8	0.1	----	0.06	1.17	0.1	0.3	2.2	1.6	0.31	0.01	----
NC-U300	45	1.00	1.50	0.75	0.54	0.05	0.09	0.15	1.5	5.00	2.5	----	-----	-----

The density by the microscope of NC-W00



Transmission				
Wave Length(nm)	400nm	500nm	600nm	700nm
Transmission	1.00%	1.20%	1.20%	1.20%

Opaque quartz glass property

Property	NC-W00	NC-U300
Density	$2.10 \times 10^3 \text{kg/m}^3$	$1.95 \times 10^3 \text{kg/m}^3$
Compression Strength	$>1.0 \times 10^9 \text{Pa(N/m}^2\text{)}$	$>1.0 \times 10^9 \text{Pa(N/m}^2\text{)}$
Coefficient of Thermal Expansion (20-300°C)	$5.4 \times 10^{-7} \text{cm/cm}^\circ\text{C}$	$5.4 \times 10^{-7} \text{cm/cm}^\circ\text{C}$
Thermal Conductivity(20°C)	Low	Low
Specific Heat	670J/kg°C	650J/kg°C
Softening Point	1730°C	1600°C
Annealing Point	1150°C	1100°C