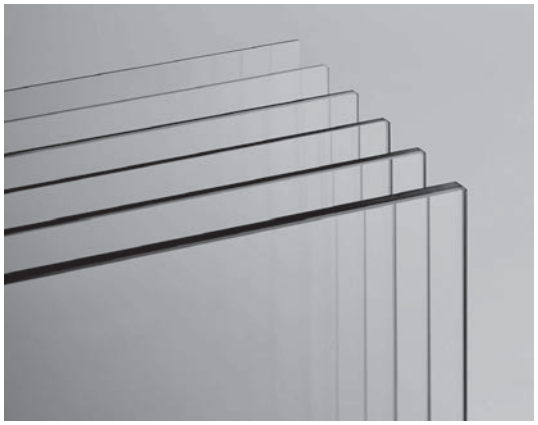
Neoceram N-0 and N-11

Neoceram N-0 is a transparent glass-ceramic material with a CTE* of virtually zero, and it has excellent thermal shock resistance at temperatures below 750°C. Neoceram N-11 is a white opaque glass-ceramic material with a low CTE of 12×10^{-7}/°C, and it can be used in continuous thermal cycles at temperatures below 850°C. Both of these materials are thin, lightweight, and have low thermal capacity. They are used as carriers and/or muffle plates for thermal treatment processes for LTPS, OLED, photovoltaic cells, and the like, as well as heated beds/tables for 3D printers.

*CTE: coefficient of thermal expansion



Neoceram N-0

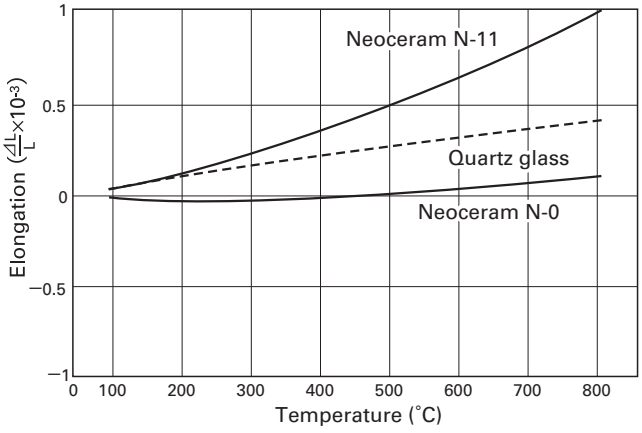
Features

- Excellent thermal shock resistance
- Zero water absorption rate
- Surface can be finished to a high level of precision.
- Wide range of sizes and thicknesses
  (Thickness: 0.7 to 8mm. Please contact us about the size.)

Properties

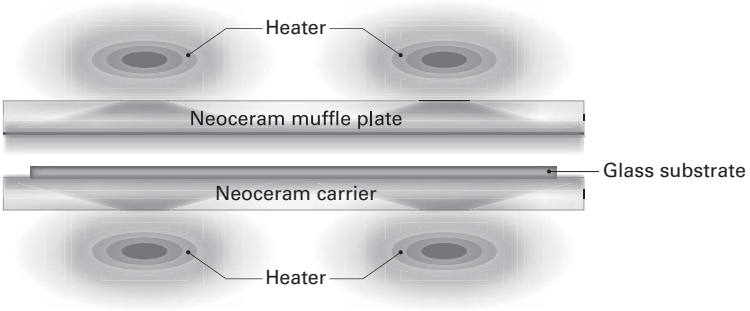
Properties/Glass Code			N-0	N-11
Appearance			Transparent	White
Coefficient of thermal expansion	30-750°C	$\times10^{-7}$/K	1	12
Specific heat		J/kg·K	800	800
Thermal conductivity		W/m·K	1.6	1.6
Heat resistance		°C	750	850
Bending strength	JIS R1601	MPa	170	220
Vickers hardness	Hv (0.2)		700	800
Density		$\times10^3$kg/m^3	2.5	2.5

Thermal Expansion



Others

Uniform Heating by Radiant Heat



Neoceram can assume many different shapes and can be used in applications involving work at high temperatures. Because of their low water absorption rate, it is also possible to use Neoceram in places requiring high degrees of cleanliness.

Applications

- Neoceram is widely used in the thermal process of the below products.
  - Low temperature poly-silicon
  - OLED
  - Solar cell
  - High heat-resistant flexible polyimide substrate
- Heated beds/tables for 3D printers