

# General Properties

Glass Types	Neoceram				
				N-0	N-11
Color				Transparent	White
Thermal Properties	Thermal Expansion Coefficient	$\times 10^{-7}/K$	-50~0°C	-6	0
			0~50°C	-4	4
			30~380°C	-1	10
			30~750°C	1	13
	Specific Heat	J/kg·K	25°C	800	800
	Thermal Conductivity	W/m·k	25°C	1.6	1.6
	Heat Resistant Temperature *	°C	Continuous	750	800
			Short Term	800	900
Thermal Shock Resistance **	°C	100×100×3mm Plate	800	550	
Optical Properties	Index of Refraction (nD)			1.54	—
	Abbe Number (vd)			57	—
	Stress-Optical Coefficient	$m\mu/cm/kg/cm^2$	25°C	3.1	—
Mechanical Properties	Density	$\times 10^3kg/m^3$		2.5	2.5
	Bending Strength JIS R-1601	MPa		170	220
	Vicker's Hardness Hv (0.2)			700	800
	Young's Modulus	GPa		94	86
Chemical Properties	Acid Resistance (5% HCl)	mg/cm <sup>2</sup>	90°C, 24hrs	0.05	0.1
	Alkali Resistance (5% Na <sub>2</sub> CO <sub>3</sub> )	mg/cm <sup>2</sup>	90°C, 24hrs	0.3	0.8
Electrical Properties	Volume Resistivity Log $\rho$	$\Omega \cdot cm$	25°C	13	13
			250°C	7	7
			350°C	5	6
	Dielectric Constant $\epsilon$		1MHz, 25°C	8	6
			2.45GHz, 25°C	—	6
	Loss Tangent Tan $\delta$	$\times 10^{-3}$	1MHz, 25°C	19	3
2.45GHz, 25°C			—	6	

\* Heat resistant temperature : Determination of the heat resistant temperature is based on mechanical deformation, and is the temperature of which 100×300×3.8t mm plate specimens (supported to form a 280-mm span) deform by 1mm after 1,000 hours continuous or 24 hours short term heating.

\*\* These figures are only general values derived by a procedure consisting of heated specimens which are then rapidly cooled by plunging them into water. Thermal shock properties of 100°C signify that specimens have been heated to 110°C and plunged into water at 10°C without exhibiting cracking.

※ The figures of the properties are measured, not guaranteed.