

Glass seal (for Stainless Steel)

Stainless steel EN:1,4016 , UNS:S43000 , AISI:430

Design concept

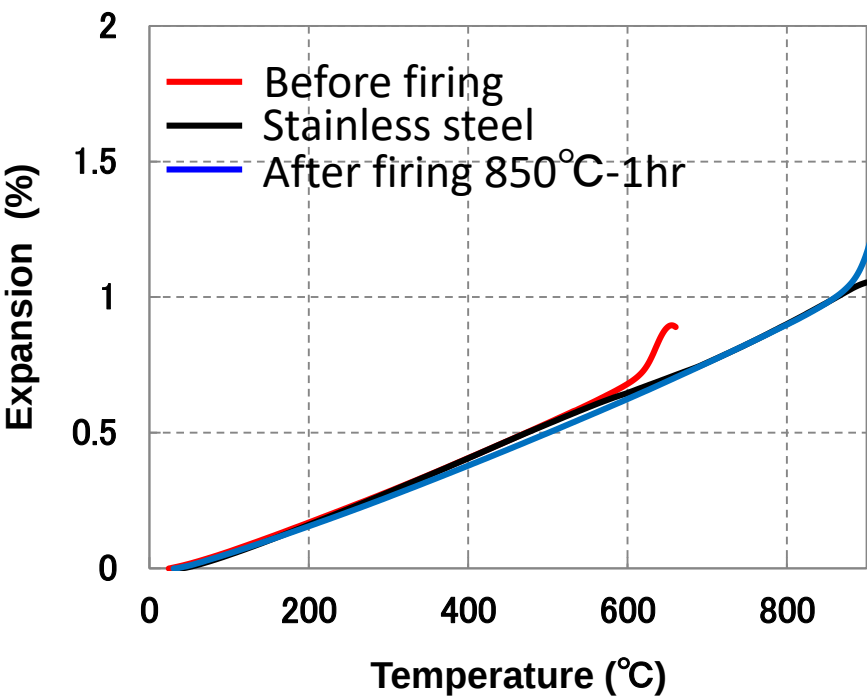
Glass System ; Alkali-free, Pb-Free, Bi-Free
After firing ;

- ✓ High CTE & Linearity
- ✓ High temp. resistance

11~12 ppm
High Crystallized

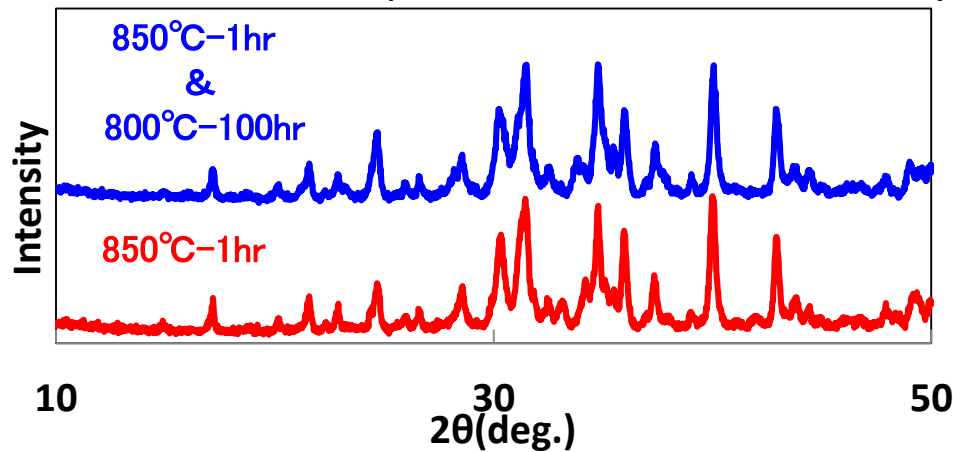
Property

Name			NYG353
Glass system			SiO ₂ -B ₂ O ₃ -RO
Before Firing	Specific gravity	-	2.9
	DTA-T _g	°C	635
	DTA-T _s	°C	710
	DTA-T _{xp}	°C	825
	D50 (μ m)	μ m	5-10
After Firing 850°C-1hr	CTE (50-550)	× 10 ⁻⁷ /°C	110
	CTE (50-700)	× 10 ⁻⁷ /°C	115
	CTE (50-850)	× 10 ⁻⁷ /°C	120
	Bending Strength	MPa	100-150
	Yang' s Modulus	GPa	130
	Poisson' s rattio	-	0.27



Heat Resistance Property :

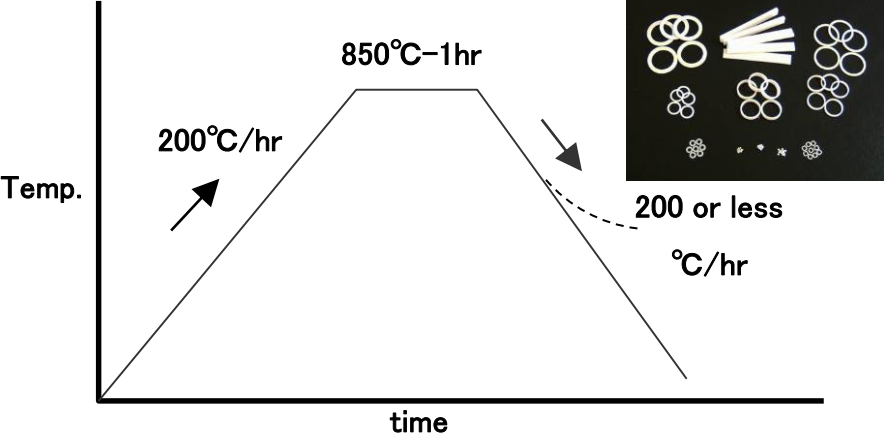
XRD pattern & CTE consistency by heat treatment (800°C-100hr)



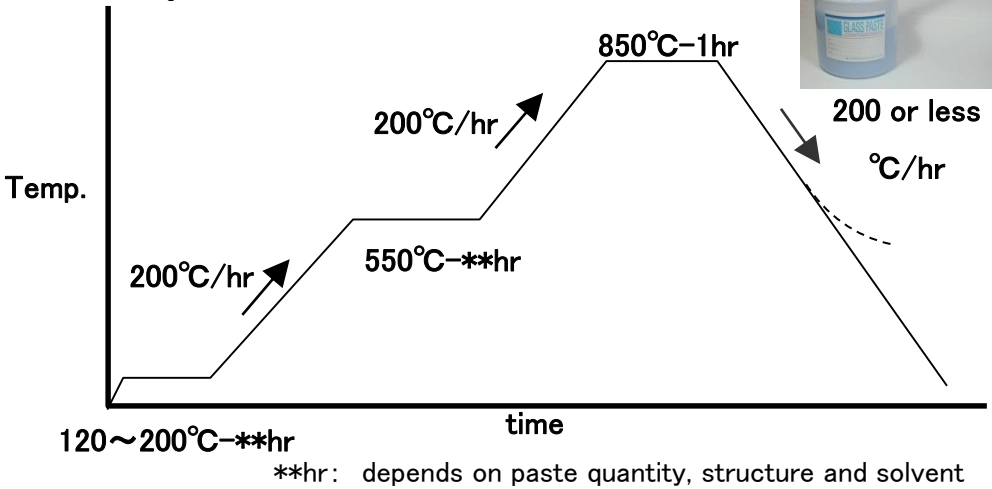
NYG353		850°C-1hr	850°C-1hr & 800°C-100hr
CTE (50-550)	× 10 ⁻⁷ /°C	110	113
CTE (50-700)	× 10 ⁻⁷ /°C	115	117
CTE (50-850)	× 10 ⁻⁷ /°C	120	121

Firing Profile (example)

Dry process



Wet process



Glass seal (for Alumina)

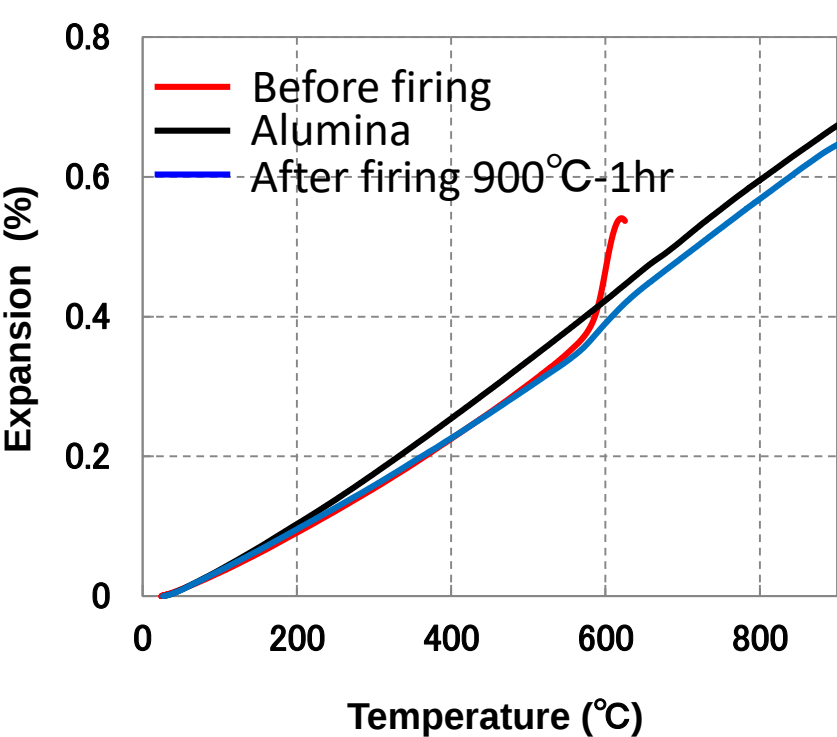
Design concept

Glass System; Alkali-free, Pb-Free, Bi-Free
After firing;

- ✓ High CTE & Linearity
- ✓ High temp. resistance
- 6~7 ppm
- High Crystallized

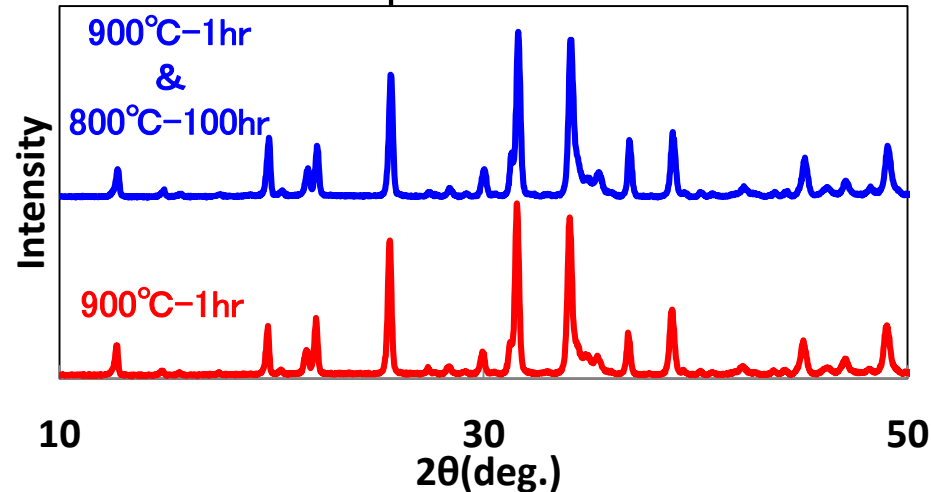
Property

Name			NYG206
Glass system			SiO ₂ -B ₂ O ₃ -RO
Before Firing	Specific gravity	-	3.4
	DTA-Tg	°C	585
	DTA-Ts	°C	660
	DTA-Txp	°C	845
	D50 (μm)	μm	5-10
After Firing 900°C-1hr	CTE (50-550)	× 10 ⁻⁷ /°C	65
	CTE (50-700)	× 10 ⁻⁷ /°C	73
	CTE (50-850)	× 10 ⁻⁷ /°C	75



Heat Resistance Property :

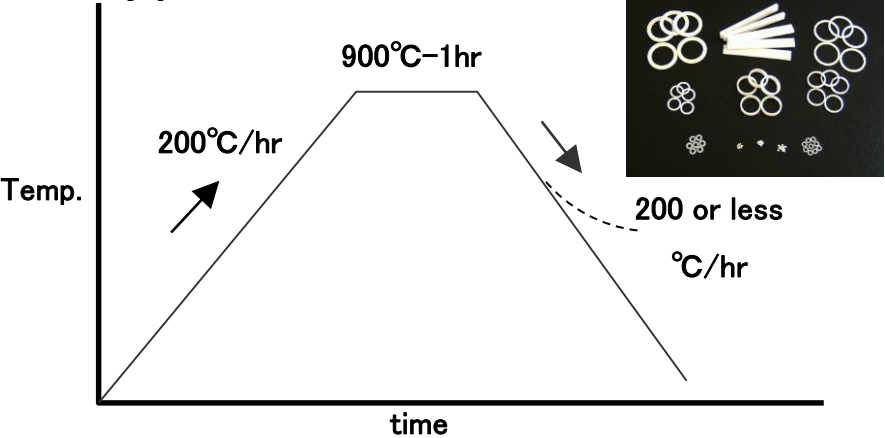
XRD pattern & CTE consistency by heat treatment (800°C-100hr)



NYG206		900°C-1hr	900°C-1hr & 800°C-100hr
CTE (50-550)	× 10 ⁻⁷ /°C	65	71
CTE (50-700)	× 10 ⁻⁷ /°C	73	74
CTE (50-850)	× 10 ⁻⁷ /°C	75	77

Firing Profile (example)

Dry process



Wet process

