

Lithium Disilicate





Advantages



- 1.High aesthetic restoration effect.
- 2.Easy to cut and Prolonging the life of the burs.
- 3.Superior chemical stability and bending strength.
- 4.Simple and fast crystallization process to reduce operating time.
5. Available in Vita 16 +7 bleach shades and high and low translucency.

Indications



Onlay



Crown



3 Unit bridge



Veneer



Inlay



Chemical Composition

SiO_2	61%-75%
P_2O_5	1%-5%
Al_2O_3	61%-75%
Li_2O	1%-5%
K_2O	3%-9%
Other Oxides	0%-15%

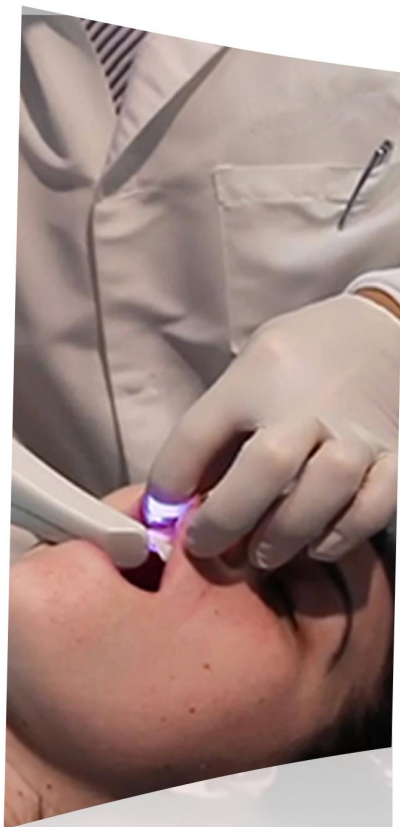
Parameter

Hardness	$\geq 500\text{HV}_2$
Bending Strength	$\geq 300\text{MPa}$
Fracture Toughness	$\geq 1\text{MPa}\cdot\text{m}^{1/2}$
Chemical Solubility	$\leq 100\mu\text{g}/\text{cm}^2$
Sintered density	$2.3-2.6\text{g}/\text{cm}^3$ $2.4-2.7\text{g}/\text{cm}^3$
Coefficient of linear expansion	$10.5 \times 10^{-6}\text{K}^{-1}$
Radioactivity	axis238concentration $\leq 1.0\text{Bq}/\text{g}$

Sintering program:

Starting Temp($^{\circ}\text{C}$)	400
Dry Time (min)	6
Temp Increasing ($^{\circ}\text{C}/\text{min}$)	45
Holding Temp ($^{\circ}\text{C}$)	840
Holding Time (min)	7
Vaccum Start($^{\circ}\text{C}$)	550
Vaccum Finished($^{\circ}\text{C}$)	840

Workflow



01

Scanning



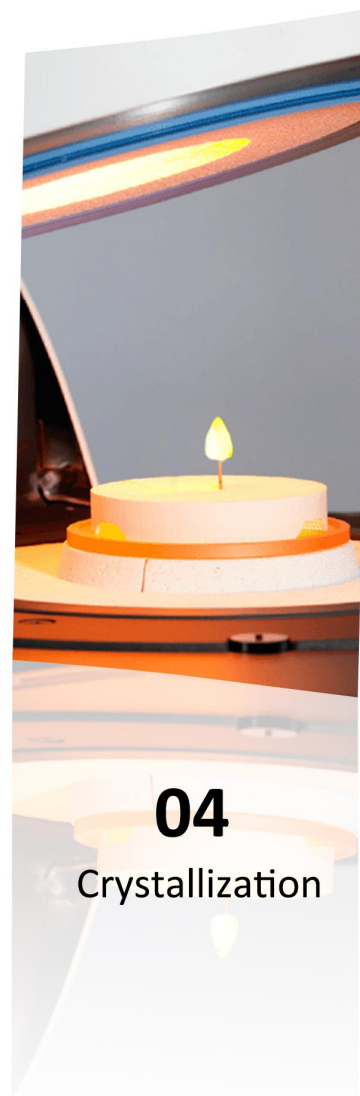
02

Acme CAD design



03

Milling



04

Crystallization