

Instructions for Use

Dental Zirconia Ceramic Block



**Qinhuangdao Silide Ceramic
Technology Co.,Ltd**

No.1, Yanghe Rd, QETDZ, Hebei Pro, China.



+86-335-7675801



+86-335-7675824



silidezirconia@foxmail.com



<http://www.silidechina.com>



Lotus NL B.V.

Koningin Julianaplein 10, le Verd, 2595AA,
The Hague, Netherlands.



+31645171879

Product Appearance

Different block & disc sizes, part with holder

Certificate

CE 0197 (medical device class IIa)

FDA (k181816)

Main Ingredients

Compositions	KINGCH®	Standard Requires
ZrO ₂ +HfO ₂ +Y ₂ O ₃	99.5%	≥99.0%
Y ₂ O ₃	4.8%	4.5% ~5.4%
Al ₂ O ₃	<0.5%	<0.5%
Other Oxide	<0.3%	<0.5%

Physical Performance

Item	HT	ST	ST-C	ST-M	UT	3D	3D ProMax
Density Post Sintering (g/cm ³)	6.09	6.07	6.04	6.04	6.05	6.06	6.05
Flexural Strength (Mpa)	1500	1200	1200	1200	750	600 900	700 1100
Shrinkage Factor (%)	19~22						
Light Translucent (%)	38	43	43	43	45	43 49	43 49
Chemical Solubility (ug/cm ²)	2.5						
Radioactivity (Bq.g)	≤0.001						

Chemical Performanc

Item	KINGCH®	Compliance Standard
Cytotoxicity test	Grade of cytotoxicity: 0	Yes
Short term systemic toxicity test-oral route	No significant differences were found between tested group and controlgroup. Indicated tested sample has no systemic toxicity	Yes
Sensitization test (Delayed-type hypersensitivity test)	The scales of reactions of 10 animals were "0", less than "1". Indicated tested sample has no sensitization	Yes
Intracutaneous reactivity test	Tested product by sodium chloride extraction is "0", by cotton seed oil extraction is 0.17, no irritation	Yes
Ames Test	Mutation negative	Yes

Products Indications

Classification	HT	ST	ST-C	ST-M	UT	3D	3D ProMax
Indication	Anterior	√	√	√	√	√	√
	Posterior	√	√	√	√	×	√
	Inlay	√	√	√	√	√	√
	Onlay	√	√	√	√	√	√
	Veneering	×	√	×	×	√	√
	Abutment	√	√	√	√	×	√
	Bridge	√	√	√	√	√	√
	Implant	√	√	√	√	×	√

Note:

HT: High Translucent,
 ST: Super Translucent,
 ST-C: Colored Super Translucent,
 ST-M: Multilayer Super Translucent,
 UT: Ultra Translucent,
 3D: 3D Multilayer Ultra Translucent,
 3D ProMax: All esthetic is needed only one disc.
 "√" means the best choosing
 "×" means not the best choosing

Using Method:

1. Processing zirconia block with automatic CAD/CAM milling machine.
2. Discharging denture from processed zirconia block.
3. Polishing denture (if need).
4. Dyeing with coloring liquid of zirconia(if need)

Sintering

To archive the maximum properties of the zirconium material, do not use a speed sinter!

Sinter Chart	Speed Sinter		Normal Sinter	
	Crown	Bridge≤5 Units	Crown/Bridge≤6 Units	Bridge >6 Units
Heating rate	40°C per minute from 0 to 900°C	40°C per minute from 0 to 900°C	10°C per minute from 0 to 300°C	10°C per minute from 0 to 300°C
Holding time	—	—	at 300 °C holding 30 minutes	at 300 °C holding 30 minutes
Heating rate	20°C per minute from 900 to 1530°C	12°C per minute from 900 to 1530°C	12°C per minute from 300 to 900°C	5°C per minute from 300 to 900°C
Heating rate	—	—	3°C per minute from 900 to 1300°C	2°C per minute from 900 to 1300°C
Heating rate	—	—	5°C per minute from 1300 to 1530°C	3°C per minute from 1300 to 1530°C
Holding time	at final 1530 °C holding 20 minutes	at final 1530 °C holding 60 minutes	at final 1530 °C holding 120 minutes	at final 1530 °C holding 120 minutes
Cooling time	20°C per minute from 1530 to room temperature	15°C per minute from 1530 to room temperature	6°C per minute from 1530 to 800°C	6°C per minute from 1530 to 800°C
Cooling time	—	—	Natural cooling from 800°C to room temperature	Natural cooling from 800°C to room temperature
Total Time	2.5 Hours	4.0 Hours	Appr 10 Hours	Appr 12.5 Hours

Note:

1. All types of blocks are suitable for above Normal Sinter Chart.
2. The HT, ST, UT are suitable for Speed Sinter chart too.

Finishing

Polishing on restoration if need, sinter diamonds, corundum stones or hart metal milling burs must not be used. Overheating has to be avoided.

Ceramics bonding

All known brands of zirconium veneering ceramics can be used. We advise you to clean the framework after final shaping with hot steam. Cover the zirconium frame completely with a layer of ceramic. Follow the instruction for use for the veneering material of your choice.

 5 years.

 Pay attention to the powder during processing.

Warning: This product may only be used by trained dental technicians, dentist and professional persons. Do not collide with hard objects and violent pressing, vibration or rain shall be avoided during handling. Unsintered ceramics block shall not be used as denture or to repair tooth directly.
















Do not use expired product.

Storage conditions: Dry storage, protect from moisture/humidity.

Package: Each piece is packed by hard carton.

Waste Disposal: Does not pollute environment.

Key of Symbols

Signal	Description
	Consult instructions for use
	Weee label
	European Representative
	This item is compliant with Medical Device Directive 93/42/EEC of June 14, 1993, a directive of the European Economic Community
	Manufacturer
	Date of manufacture
	Batch code
	Storage and Transport Temperature limitation
	Storage and Transport Humidity limitation
	Caution
	Fragile, handle with care
	Keep dry
	Do not reuse
	Keep away from sunlight
	Use by XXXX-XX (year-month)

