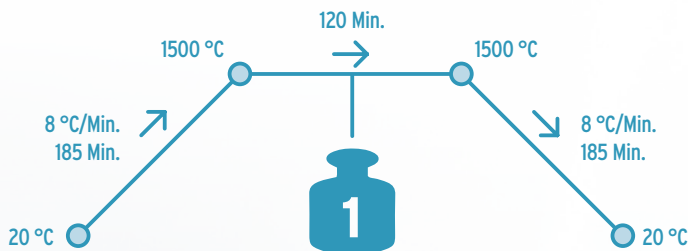


Quick Guide

Zirconia Sintering

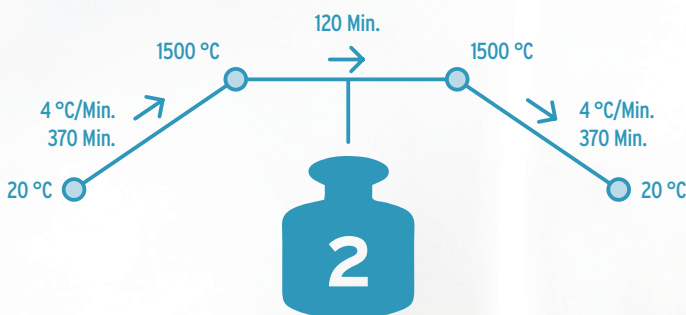
TIPS AND HINTS

LIGHT CONSTRUCTION / SMALL MASS



Mass	Crown thickness	Pontic Thickness
1	0.50 mm - 2.00 mm	3.00 mm - 5.00 mm
Heat/ Cool - Rate /min.		
8 °C		
Holding Time		
120 min.		

MASSIVE CONSTRUCTION / LARGE MASS



Mass	Crown Thickness	Pontic Thickness
2	2.00 mm - 5.00 mm	5.00 mm - 9.00 mm
Heat/ Cool - Rate /min.		
4 °C		
Holding Time		
120 min.		
Toronto:	Heat/ Cool - Rate /min.	
4 °C		
Toronto:	Holding Time	
150 - 180 min.		

STRENGTH VS. TRANSLUCENCY

Strength	Translucency		
	1450 °C	1500 °C	1550 °C +
	DIN EN ISO 13356	QUALITY RISK	

- Higher sintering temperature will generate grain growth and raises the translucency.
- The grain growth will decrease the strength and increase the translucency.
- A bigger grain will have a higher low temperature degradation and therefore a negative effect on the long-term strength and durability.
- Zirconium is a poor heat conductor. The transport of energy in and out of the material takes time. (Lower the heat rates for massive constructions)
- Slow cooling can improve translucency and will work against tensions in the material.

