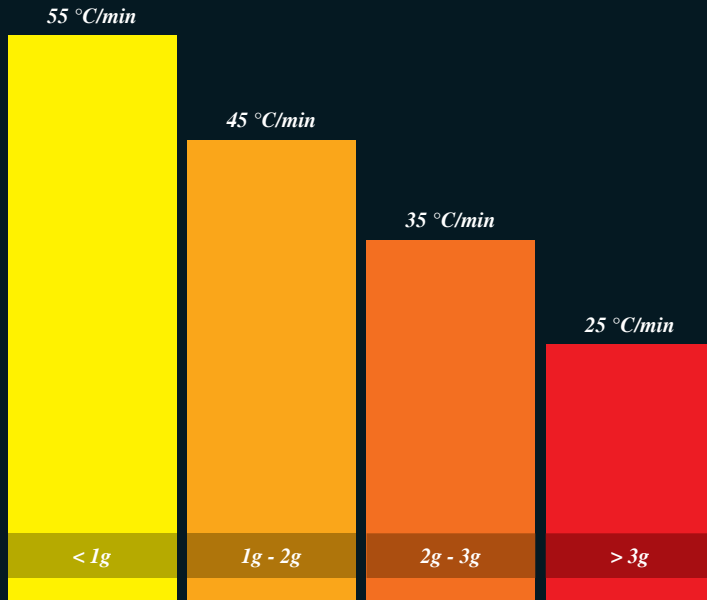


ICE ZIRKON CERAMICS - Veneering zirconia

Firing information for layering ceramics on zirconia

Zirconia, a poor heat conductor, requires special procedures when burning



Weight per dental unit*

*The dental unit with the highest mass determines the times for the complete structure.

Hints

- When cutting the stabilizer off the zirconia framework, the connectors should slowly be cut through with the diamond disk to avoid the creation of a glowing core.
- Forceful point-by-point strong point-by-point heating should be avoided (steam cleaning, sandblasting, polishing to high gloss, finishing).
- Don't use diamond discs to separate the zirconia.
- The zirconia framework should preferably be sandblasted (50 – 100 µm aluminium oxide at 1 – 2 bar). This serves to roughen and clean the surface.
- If the bridge which is to be veneered with ceramic is thin and doesn't have any strong pontics, it can be burned with the usual climb rate of 55 °C. But, if there are stronger pontics, a special firing curve is required.
- Forceful point-by-point, a wash bake with dentine should be carried out.
- The holding time should be at least 2 minutes (independent of the framework size).
- The more solid the framework, the slower the structure must be heated up and cooled down (thermal shock). Otherwise, thermal shocks may occur, that could lead to micro fractures.
- After the firing cycle, the furnace must remain closed until it cools down to at least 600 – 700 °C. The framework should only be taken out of the furnace when the furnace reaches a temperature of less than 200 °C.

ICE ZIRKON CERAMICS - Firing table

	Large bridges	Single crowns and small bridges
Start temp	300 – 350 °C	300 – 350 °C
Drying time	2 – 4 min	2 min
Heating time	6 – 8 min	4 – 6 min
Heat rise	20 – 35 °C/min	35 – 55 °C/min
Wash fire (with dentine)	860 – 920 °C, 2 – 5 min holding time	860 – 920 °C, 2 – 5 min holding time
Dynamik Dentin fire	830 – 840 °C, 1 – 2 min holding time	830 – 840 °C, 1 – 2 min holding time
Biscuit (1st) fire	820 °C, 1 – 2 min holding time	820 °C, 1 – 2 min holding time
Second fire and further fires	0 – 15 °C less (end temperature), 1 – 2 min holding time	0 – 15 °C less (end temperature), 1 – 2 min holding time
Stain fire	730 °C, 1 min holding time	730 °C, 1 min holding time
Glaze fire	780 – 800 °C, 1 min holding time	780 – 800 °C, 1 min holding time
Turn on vacuum at a temperature of	400 – 450 °C	400 – 450 °C
Turn off vacuum at a temperature of	end firing temperature	end firing temperature
Vacuum level	max	max
Cooling	long-term cooling, depending on mass	

