

SINTERING CURVE & PARAMETER CHART

Universal Ceramic Stain & Glaze Paste for Dental Restorations

- Zirconia (ZrO₂)
- Lithium Disilicate
- Glass-Ceramics
- Feldspathic Porcelain

PACKAGING FORMAT

10g / Bottle

Ready-to-use pre-mixed paste; full shade range available.

PEAK FIRING RANGE

730°C – 750°C

3 min residence hold for high glaze shine & color stability.

UNIVERSAL COMPATIBILITY

Multi-Substrate

Matches CTE across single crowns and multi-unit bridges.

Firing Stage Breakdown & Workflow

STAGE 1

Start & Drying

450°C | 10 min

STAGE 2

Warming Ramp

30 – 45 °C/min

STAGE 3

Peak Sintering

730–750°C (3 min)

STAGE 4

Controlled Cooling

30 – 45 °C/min

STAGE 5

Chamber Open

298°C – 650°C

Detailed Sintering Parameters (Bench Reference)

Sintering Parameter	Single Crown & Bridges (< 3 Units)	Bridges (> 3 Units)
Starting Temperature (°C)	450 °C	450 °C
Warm-up Time (min)	4:00 min	4:00 min
Drying Time (min)	6:00 min	6:00 min
Rate of Warming (°C/min)	45 °C/min	30 °C/min
Sintering Peak Temp (°C)	730 °C – 750 °C	730 °C – 750 °C
Residence / Hold Time (min)	3:00 min	3:00 min
Cooling Rate (°C/min)	45 °C/min	30 °C/min
Opening Temperature (°C)	650 °C	298 °C



Essential Bench Tips for Dental Technicians

- **Surface Preparation:** Steam clean and thoroughly dry restorations before applying stain paste to ensure uniform adhesion and prevent bubbling.
- **Long-Span Safety (>3 Units):** Strictly observe the reduced heating/cooling rate (30°C/min) and lower opening temperature (298°C) for large bridges to prevent thermal stress fractures and CTE mismatch cracks.
- **Paste Conditioning:** Stir pre-mixed stain paste thoroughly before use. Use dedicated liquid glaze liquid if thinning is required—never dilute with water.
- **Furnace Calibration:** Verify your porcelain furnace temperature regularly using silver calibration wires or standard test runs to maintain consistent firing color accuracy.