

Obsidian® – STEP-BY-STEP GUIDE

LITHIUM SILICATE CERAMIC



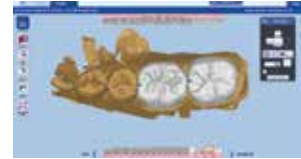
Preparation Design Milling



Prepare the restoration following the guidelines and minimum thickness requirements shown on the reverse.



To ready the area for intraoral imaging, cover the preparation with high resolution scanning spray.



Digitally create your restoration using either IOS FastDesign™ or 3Shape design software.



Mill the restoration.



Smooth out the attachment points and finish the restoration. Be sure to maintain the minimum thickness requirements.

Preliminary Try-In Preparation for Crystallization*



Try in the restoration in its blue state. Check the occlusion and articulation, and adjust if required.



After finishing and prior to crystallization, thoroughly clean the restoration with an ultrasonic water bath or with a steam jet. It is strongly recommended NOT to sandblast or grit blast the restorations using glass beads or alumina.



Apply mixed Obsidian Paste Stains directly onto the blue-state restoration. Place the restoration near the open furnace to dry the stains prior to applying any glaze. Ensure that the restoration naturally cools to room temperature before proceeding.



Spray an even, covering layer of PrismaTik Universal Low Fusing Ceramic Fluorescent Spray Glaze onto the restoration.



Fill the restoration with peg putty.

Crystallization Post-crystallization Cleaning Post-crystallization Try-In



Place the restoration on a ceramic peg, and set the ceramic peg on top of a honeycomb tray.



Conduct the crystallization firing with the Programat® CS as recommended*, adjusting based on the number of restorations and the staining/glazing method used.



Once the restoration is cool to the touch, remove all the residual peg putty material from the inside of the restoration. The bulk of the putty material can be removed with a metal tweezer.



If there is remaining putty, remove it by gently using a cylindrical-shape fine diamond bur.



With the restoration crystallized and free of putty material, try in the restoration.

Etching Cementing Final Placement



Prior to final placement, etch the restoration for 10 seconds using 5% hydrofluoric acid gel.



Thoroughly rinse the etched surface with water.



Clean the preparation by rinsing it with water and then blow dry with air.



Cement the restoration according to the manufacturer's instructions.

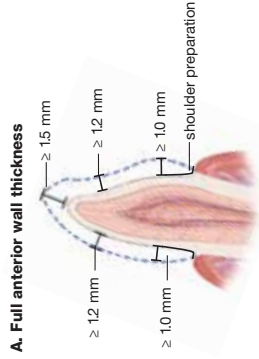


Seat the Obsidian CAD restoration in place.

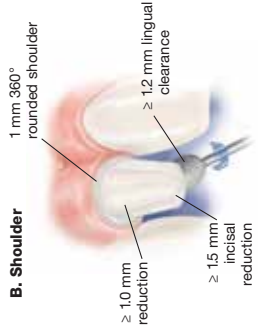
PREPARATION GUIDELINES FOR ALL-CERAMIC RESTORATIONS

ANTERIOR FULL-COVERAGE CROWN

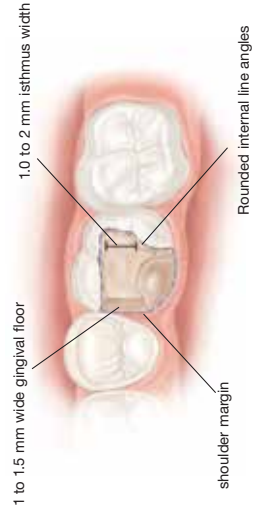
A. Full anterior wall thickness



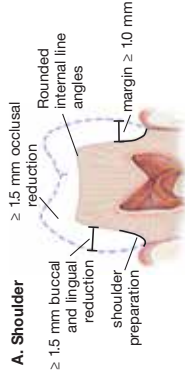
B. Shoulder



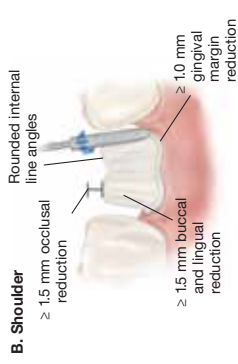
ONLAY (PREMOLARS OR MOLARS)



POSTERIOR FULL-COVERAGE CROWN



A. Shoulder



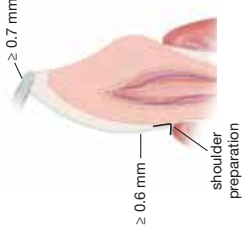
B. Shoulder

VENEERS

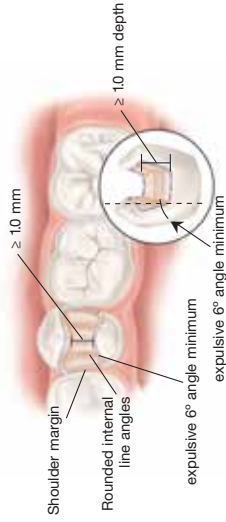


Uniform Facial Preparation
A medium-grit round-ended diamond is used to join the depth cut grooves to establish a uniform preparation and veneer thickness of ≥ 0.6 mm.

Veneers wall thickness



INLAY (PREMOLARS OR MOLARS)



FIRING PARAMETERS

Crystallization

Stand By Temperature	Closing Time	Heating Rate	Holding Temperature 1	Holding Time 1	Heating Rate 2	Holding Temperature 2	Holding Time 2	Cooling Rate	Long-Term Cooling	Vacuum 1	Vacuum 2
400 °C	3 min	90 °C/min	780 °C	10 sec	40 °C/min	820 °C	10 min	50 °C/min	680 °C	400 °C 780 °C	780 °C 819 °C

Stain/Glaze Heating Cycle

Stand By Temperature	Closing Time	Heating Rate	Final Temperature	Holding Time	Long-Term Cooling
400 °C	3 min	40 °C/min	800 °C	1 min	680 °C

GC Initial LF Veneering

Stand By Temperature	Closing Time	Heating Rate	Final Temperature	Holding Time	Vacuum V1	Vacuum V2	Long-Term Cooling
400 °C	6 min	45 °C/min	800 °C	1 min	400 °C	800 °C	680 °C

GC Initial LF Add-On

Stand By Temperature	Closing Time	Heating Rate	Final Temperature	Holding Time	Vacuum V1	Vacuum V2	Long-Term Cooling
400 °C	6 min	45 °C/min	760 °C	1 min	400 °C	760 °C	680 °C

CEMENTATION

The restorations must be etched (5% HF for 10 sec) prior to cementing. The etched surface should be thoroughly rinsed with water.

Etching for longer time (more than 10 sec) or using a higher concentration (>5%) of HF etchant is **NOT** recommended.

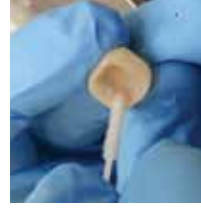
Dental professionals should use conventional cements, adhesive resin cements or self-adhesive resin cements for luting Obsidian restorations. Obsidian restorations require salinization or conditioning of the bonding surface. Adhesive resin cement is preferred for inlay, onlays and partial crowns. Anterior and posterior crowns can be cemented with conventional cements, adhesive resin cements or self-adhesive resin cements.



Incorrectly etched (lacking etching on select internal areas & margin edges).



5% HF etching gel applied inside the restoration.



5% HF etching gel applied all around the margin using a microbrush.



Correctly etched restoration (internally and all around the margin edges).