Indications: Up to 14-unit bridges can be pressed.

**ANTERIOR CROWNS**

- Minimum 1.5 mm facial reduction
- 2.0 mm incisal reduction
- 1.5 mm lingual reduction

For porcelain margins, utilize a deep chamfer or shoulder preparation.

**POSTERIOR CROWNS**

- Minimum 1.5 mm occlusal reduction from the deepest occlusal pit
- 1.5 mm proximal reduction
- 360° shoulder or chamfer

**ANTERIOR BRIDGES**

- 1.5 mm facial reduction
- 2.0 mm incisal reduction

For porcelain margins, utilize a deep chamfer or shoulder preparation.

**POSTERIOR BRIDGES**

- Round internal line angles
- 360° shoulder or deep chamfer with rounded internal line angles

**POSTERIOR BRIDGES**

- 1.5 mm proximal reduction

---

**FRAMEWORK COMPOSITION**

<table>
<thead>
<tr>
<th></th>
<th>Anterior</th>
<th>Posterior</th>
<th>Connector</th>
</tr>
</thead>
<tbody>
<tr>
<td>Framework (Alloy)*</td>
<td>0.3</td>
<td>0.3</td>
<td>9 mm²</td>
</tr>
<tr>
<td>Opaque</td>
<td>0.2</td>
<td>0.2</td>
<td>0.2</td>
</tr>
<tr>
<td>Obsidian Pressed to Metal</td>
<td>0.8</td>
<td>0.8</td>
<td>0.8</td>
</tr>
</tbody>
</table>

*Bridge abutments must be greater than or equal to 0.5 mm.

**DESIGN PARAMETERS FOR 3SHAPE**

- Cement Gap: 0.030 mm
- Extra Cement Gap: 0.090 mm
- Distance to Margin Line: 1.000 mm
- Smooth Distance: 0.500 mm
- Drill Radius: 0.520 mm
- Drill Compensation: 0.100 mm
- Offset Angle: 80 degrees
- Margin Line Offset: 0.450 mm
- Extension Offset: 0.080 mm

**CEMENTATION**

Dental professionals should use conventional cement, adhesive resin cements or self-adhesive resin cements for luting Obsidian restorations. The inside of the pressed to metal restoration may need to be sandblasted prior to seating in order to prepare the bonding surface for cementation. Anterior and posterior crowns can be cemented with conventional cement, adhesive resin cements or self-adhesive resin cements.
PREPARATION GUIDELINES FOR ALL-CERAMIC RESTORATIONS

Indications: Single-unit crowns, inlays, onlays and veneers.

ANTERIOR FULL-COVERAGE CROWN

A. Full anterior wall thickness

- ≥ 1.5 mm
- ≥ 1.2 mm
- ≥ 1.0 mm

B. Shoulder

- 1 mm 360° rounded shoulder
- ≥ 1.0 mm
- ≥ 1.2 mm
- ≥ 1.5 mm

POSTERIOR FULL-COVERAGE CROWN

A. Shoulder

- ≥ 1.5 mm occlusal reduction
- ≥ 1.0 mm gingival margin reduction
- ≥ 1.5 mm buccal and lingual reduction

B. Shoulder

- Rounded internal line angles
- ≥ 1.0 mm

INLAY (PREMOLARS OR MOLARS)

- Shoulder margin
- Rounded internal line angles

ONLAY (PREMOLARS OR MOLARS)

- 1 to 1.5 mm wide gingival floor
- 1.0 to 2 mm isthmus width

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.

Minimum Thickness (in mm) for Obsidian Monolithic All-Ceramic Restorations

<table>
<thead>
<tr>
<th></th>
<th>Inlay</th>
<th>Onlay</th>
<th>Veneer</th>
<th>Partial Crown</th>
<th>Anterior</th>
<th>Premolar</th>
<th>Molar</th>
</tr>
</thead>
<tbody>
<tr>
<td>Circular</td>
<td>1.0*</td>
<td>1.0</td>
<td>0.6</td>
<td>1.5</td>
<td>1.2</td>
<td>1.5</td>
<td>1.5</td>
</tr>
<tr>
<td>Incisal/Occlusal</td>
<td>1.0*</td>
<td>1.0</td>
<td>0.6</td>
<td>1.5</td>
<td>1.5</td>
<td>1.5</td>
<td>1.5</td>
</tr>
</tbody>
</table>

*isthmus width

DESIGN PARAMETERS FOR 3SHAPE

- Cement Gap: 0.030 mm
- Extra Cement Gap: 0.070 mm
- Distance to Margin Line: 1.000 mm
- Smooth Distance: 0.500 mm
- Drill Radius: 0.520 mm
- Drill Compensation: 0.100 mm
- Offset Angle: 65 degrees
- Margin Line Offset: 0.150 mm
- Extension Offset: 0.070 mm

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.