

### Inlays

**Preparation**

Shoulder margin  
Rounded internal line angles  
1.0 mm isthmus width  
1.0 mm to 1.5 mm wide gingival floor  
1.0 mm depth at isthmus

**Material Options:**  
IPS e.max Lithium Disilicate

**Cementation** (must be adhesively cemented)

**Recommended**  
Multilink Automix  
Variolink II  
Variolink Veneer

**Other:**  
Adhesive Resin Cements

**Contraindication:**  
Temporary Cements  
Self-Adhesive Cements  
Glass Ionomer Cements  
Resin Modified Glass Ionomer

### Onlays

**Preparation**

1.0 mm to 1.5 mm wide gingival floor  
Shoulder margin  
Occlusal reduction of 1.5 mm

**Material Options:**  
IPS e.max Lithium Disilicate

**Cementation** (must be adhesively cemented)

**Recommended**  
Multilink Automix  
Variolink II  
Variolink Veneer

**Other:**  
Adhesive Resin Cements

**Contraindication:**  
Temporary Cements  
Self-Adhesive Cements  
Glass Ionomer Cements  
Resin Modified Glass Ionomer

### Anterior Crowns

**Preparation**

Shoulder margin  
1.0 mm reduction at gingival margin  
Shoulder margin  
1.2 mm to 1.5 mm facial reduction  
1.2 mm lingual contact clearance  
1.5 mm incisal reduction  
Rounded internal line angles  
Football-shaped finishing bur for lingual reduction

**Material Options:** IPS e.max Lithium Disilicate, IPS e.max ZirCAD

**Cementation**

Retentive Preparation	Non-Retentive Preparation
<p><b>Recommended</b> Multilink Automix Variolink II SpeedCEM</p> <p><b>Other:</b> Adhesive Resin Cements Self-Adhesive Cements Glass Ionomer Cements Resin Modified Glass Ionomer</p> <p><b>Contraindication:</b> Temporary Cements</p>	<p><b>Recommended</b> Multilink Automix Variolink II</p> <p><b>Other:</b> Adhesive Resin Cements</p> <p><b>Contraindication:</b> Self-Adhesive Cements Glass Ionomer Cements Resin Modified Glass Ionomer Temporary Cements</p>

### Posterior Crown

**Preparation**

Rounded internal line angles  
1.5 mm to occlusal reduction  
1.5 mm axial reduction  
1.0 mm reduction at the gingival margin  
A flat-ended tapered diamond is utilized to establish a shoulder margin

**Material Options:** IPS e.max Lithium Disilicate, IPS e.max ZirCAD

**Cementation**

Retentive Preparation	Non-Retentive Preparation
<p><b>Recommended</b> Multilink Automix Variolink II SpeedCEM</p> <p><b>Other:</b> Adhesive Resin Cements Self-Adhesive Cements Glass Ionomer Cements Resin Modified Glass Ionomer</p> <p><b>Contraindication:</b> Temporary Cements</p>	<p><b>Recommended</b> Multilink Automix Variolink II</p> <p><b>Other:</b> Adhesive Resin Cements</p> <p><b>Contraindication:</b> Self-Adhesive Cements Glass Ionomer Cements Resin Modified Glass Ionomer Temporary Cements</p>

### Veneers

**Preparation**

0.7 mm incisal reduction  
Depth cuts of 0.6 mm\*

**Material Options:**  
IPS e.max Lithium Disilicate

**Cementation** (must be adhesively cemented)

**Recommended**  
Variolink Veneer  
Variolink II

**Other:**  
Adhesive Resin Cements

**Contraindication:**  
Temporary Cements  
Self-Adhesive Cements  
Glass Ionomer Cements  
Resin Modified Glass Ionomer

### Posterior Bridge

**Preparation**

1.5 mm to occlusal reduction  
Rounded internal line angles  
1.5 mm reduction at the gingival margin  
Rounded internal line angles  
Shoulder margin  
1.0 mm reduction at the gingival margin  
1.5 mm to 2.0 mm occlusal reduction  
1.5 mm axial reduction

**Material Options:** IPS e.max CAD-on, IPS e.max ZirCAD

**Cementation**

Retentive Preparation	Non-Retentive Preparation
<p><b>Recommended</b> Multilink Automix Variolink II SpeedCEM</p> <p><b>Other:</b> Adhesive Resin Cements Self-Adhesive Cements Glass Ionomer Cements Resin Modified Glass Ionomer</p> <p><b>Contraindication:</b> Temporary Cements</p>	<p><b>Recommended</b> Multilink Automix Variolink II</p> <p><b>Other:</b> Adhesive Resin Cements</p> <p><b>Contraindication:</b> Self-Adhesive Cements Glass Ionomer Cements Resin Modified Glass Ionomer Temporary Cements</p>

### Anterior Bridge

**Preparation**

Rounded internal line angles  
Shoulder margin  
1.0 mm reduction at the gingival margin  
1.5 mm axial reduction  
1.5 mm incisal reduction

**Material Options:** IPS e.max Lithium Disilicate, IPS e.max CAD-on, IPS e.max ZirCAD

**Cementation**

Retentive Preparation	Non-Retentive Preparation
<p><b>Recommended</b> Multilink Automix Variolink II SpeedCEM</p> <p><b>Other:</b> Adhesive Resin Cements Self-Adhesive Cements Glass Ionomer Cements Resin Modified Glass Ionomer</p> <p><b>Contraindication:</b> Temporary Cements</p>	<p><b>Recommended</b> Multilink Automix Variolink II</p> <p><b>Other:</b> Adhesive Resin Cements</p> <p><b>Contraindication:</b> Self-Adhesive Cements Glass Ionomer Cements Resin Modified Glass Ionomer Temporary Cements</p>

# Clinical Case Guide

Cement Procedures								
	STEP 1		STEP 2		STEP 3	STEP 4	STEP 5	
	IPS e.max Restoration Conditioning		Tooth Conditioning		Cement	Clean Up	Final Cure	Post-Op
	Etching Restoration	Priming Restoration	Etching Tooth	Priming Tooth				View
	Apply IPS Ceramic Etching Gel (5% HF Acid) for 20 seconds to bonding surface of the restoration. Rinse thoroughly and air dry.	Apply Monobond Plus Universal Primer to the bonding surface of the restoration. Allow to react for 60 sec. Completely air dry.	Apply Total Etch 37% Phosphoric Acid etching gel. (15 secs on dentin, 30 secs on enamel) Rinse and dry leaving prepared surface moist.	Apply bonding agent to moist preparation	Mix and dispense cement into restoration	After seating, light cure each quarter surface for 1-2 sec. The cement will achieve a gel-like consistency for easy clean-up.	Optional: Utilize Liquid Strip (glycerin gel) along the margins to eliminate oxygen-inhibition layer. Light cure each side on high power for 20 sec.	
<b>Variolink® III Variolink® Veneer</b>								
				Scrub Excite F on preparation for 10 seconds. Thin with air and light cure.				
<b>Multilink® Automix</b>			Not Required					
				Scrub self-etching Primer 1:1 mixture into the prepared surface. (30 sec. on enamel and 15 sec. on dentin) Air dry				
<b>SpeedCEM®</b>			Not Required					

## Clinical Recommendation

Efficient rotary cutting instruments for high-strength ceramics

- When removing a high-strength ceramic restoration, proper bur selection improves the efficiency of the procedure, reducing the time needed for completion.
- The use of an electric handpiece is preferable due to its superior cutting efficiency and reduced heat generation.
- Regardless of the cutting instrument or the handpiece used, copious water irrigation is paramount when cutting through ceramic materials. Water acts as a lubricant, improves cutting efficiency and prevents heat rise in the restoration and the tooth underneath.

MANUFACTURER	BUR	GRIT SIZE	FOOTBALL SHAPE FOR OCCLUSAL REDUCTION	ROUND SHAPE FOR ENDODONTIC ACCESS	CYLINDER SHAPE FOR CROWN REMOVAL
Komet	ZR Diamond	Coarse 126µm	Excellent (ZR6379.314.023)	Excellent (ZR6801.314.014)	Excellent (ZR6856.314.025)
Brasseler USA	DuraCut	Coarse 151µm	Excellent (6368DC.31.023)	Very good (6801DC.31.023)	Very good (6856DC.31.018)
Dentalree	Crosstech	Coarse 150µm	Excellent (368.031.023)	Very good (801.31.018)	Good (856.31.018)
SS White	Great White Z		Excellent (GWZ 379-023)	Very good (GWZ 801-018)	Good (GWZ 856-018)

Tested at applied testing facility, Ivoclar Vivadent Amherst

100% CUSTOMER SATISFACTION  
GUARANTEED!

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