



## Posterior Non-Adhesive Cementation

Often times, it becomes almost impossible to isolate a posterior preparation to a degree that will allow utilizing a “Total-Etch” or “Select-Etch” technique. With the introduction of more durable and higher flexural strength ceramics, it is acceptable to lute these restorations using a less technique-sensitive protocol. These cements include self-etching resin cements, resin ionomer cements, and bioceramic cements. I prefer to use a self-etching resin cement for these restorations due to their relative high translucency, low film thickness, ease of use, dual-cure properties, and some adhesion to dentin and enamel.

### Dr. David Hornbrook

*Clinical Director of Education and Technology*

### Types of restorations

e.max (lithium disilicate) crowns 1.5 mm thick or greater with adequate retention preparations, zirconium-oxide restorations with adequate retention preparations (both monolithic and core supported), and metal-supported restorations

#### 1) Remove provisional

#### 2) Clean preparation with Chlorahexadine pumice

Recommended Product:  
 • Consepsis Scrub (Ultradent)

#### 3) Try-in restorations using water or glycerin

#### 4) After checking aesthetics and proximal contacts, rinse thoroughly

#### 5) Prepare restoration for bonding

- a) If restoration is lithium disilicate (e.max)
  - i) Clean internal with phosphoric acid, rinse, and dry
  - ii) Apply silane coupling agent for 1 minute

#### Recommended Products:

- Porcelain Primer (Bisco)
- MonoBond + (Ivoclar)

#### b) If restoration is zirconium-oxide or metal-based

- i) Clean internal with NaOH2

#### Recommended Product:

- Ivoclean (Ivoclar)

- ii) Place Zirconium-oxide/metal primer on internal surface for 1 minute

#### Recommended Product:

- Z Prime + (Bisco)

#### c) Place the dual-cure, self-resin cement on the inside of the restoration

#### Recommended Products:

- BisCem (Bisco)

- MaxCem Elite (Kerr)
- Unicem 2 (3M)
- MultiLink Automix (Ivoclar)

#### d) Seat restoration completely using blunt tipped instrument - do not clean up excess

- e) “Tack”- using a 2.0 mm light guide in middle of occlusal surface for 5 seconds, away from margins

- f) “Wave”- using 8.0 mm or 11.0 mm light guide and “Wave” all margins for a total of 5 seconds

- g) Remove excess resin gently using Bard Parker blades, scalers, and explorer

- h) Floss through contacts using waxed dental floss
- i) Place glycerin around all margins  
Recommended Products:
  - DeOx (Ultradent)
  - Liquid Strip (Ivoclar)
- j) Light polymerize for at least 40 seconds
- k) Rinse off glycerin
- l) Remove excess cement using scalers, Bard Parker blades, etc
- m) Finish margins and adjust occlusion using 15 or 25  $\mu\text{m}$  finishing diamonds  
Recommended Product:
  - Hornbrook Finishing kit (Brasseler)
- n) Finish interproximals with finishing strips  
Recommended Product:
  - 1954N strip (3M)
- o) Polish all margins (that were adjusted) and occlusal surfaces using ceramic polishing points and cups  
Recommended Products:
  - Hornbrook Lithium disilicate adjusting and polishing kit (DiaShine/VH Technologies)
  - Hornbrook Zirconium-oxide adjusting and polishing kit (DiaShine/VH Technologies)
  - OptraFine (Ivoclar)



**Cementation Guidelines courtesy  
of Keating Dental Arts**

16881-A Hale Avenue  
Irvine, California 92606  
1-800-433-9833  
[www.keatingdentalarts.com](http://www.keatingdentalarts.com)

For technical questions, contact  
Dr. David Hornbrook at  
[hornbrook@keatingdentalarts.com](mailto:hornbrook@keatingdentalarts.com)