

IPS e.max® Cementation Guide

CEMENTATION

The high strength of IPS e.max lithium disilicate offers dentists a choice to adhesively bond or conventionally cement their restorations.

Coordinated especially for Ivoclar Vivadent restorative materials, Ivoclar Vivadent recommends the following cements to maximize the performance and esthetics of IPS e.max restorations:

ADHESIVE RESIN CEMENTS

For maximum bond strengths and in situations where adequate retention is not possible in the prep design (e.g. veneers, inlays/onlays) adhesive cementation is recommended.

There are no minimum requirements for adhesive cementation. Adhesive cementation will provide higher-immediate bond strengths and a better marginal seal.

SELF-ADHESIVE RESIN CEMENTS

Self-adhesive resin cements combine an easy conventional cementation technique, with the advantages of "resin luting-composite"; increased strength, low solubility, high-level radiopacity and light-cure capabilities. Due to the lower bond strengths offered by this category of cements, it is strongly recommended that self-adhesive resin cements only be utilized in situations where a conventional cement would normally be used; retentive prep design, high-strength restoration with adequate thickness and tight fit.

Self-Adhesive Resin Cements	Adhesive Resin Cements
High-strength restorations only <ul style="list-style-type: none">Lithium disilicate (e.g. IPS e.max)Metal & Metal-CeramicOxide Ceramic (Zirconia, Alumina)	All types of restorations <ul style="list-style-type: none">Including Feldspathic and Leucite
Adequate retention in prep design <ul style="list-style-type: none">Less than 8 degree taperMinimum 4mm height	Any preparation design <ul style="list-style-type: none">Retentive and non-retentive
Adequate thickness of restoration <ul style="list-style-type: none">Greater than 1.0mm for anteriorGreater than 1.5 mm for posterior	Any thickness <ul style="list-style-type: none">Including "thin" veneer restorations



Multilink® Automix

Self-etching, adhesive resin cement

- High-immediate bond strengths to dentin, enamel and ALL restorative materials
- Self-etching, self-curing primer for reduced post-op sensitivity
- Self-cure with light-cure option
- Radiopaque



Variolink® II

Total-etching, adhesive resin cement

- Available in 6 esthetic shades and 2 viscosities
- Optional dual- or light-cure only polymerization
- Radiopaque
- More than 20 years of proven clinical excellence



Variolink® Veneer

Esthetic resin cement

- Available in 7 value shades designed specifically for veneers
- Light-cure polymerization and free of self-cure amines for optimal shade stability
- Optimized consistency for veneers
- Fast, easy clean-up



SpeedCEM®
Self-adhesive resin cement

- Fast, easy conventional cementation technique (No etching, bonding agents, or need for additional devices.)
- Self-cure with light-cure option
- Available in 3 shades
- Radiopaque

Pre-Treatment of IPS e.max Restorations



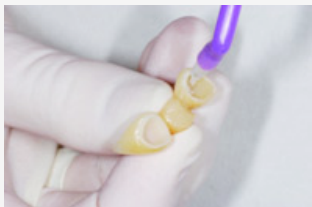
1. Apply IPS Etching Gel (5% hydrofluoric acid) to internal surfaces of restoration.



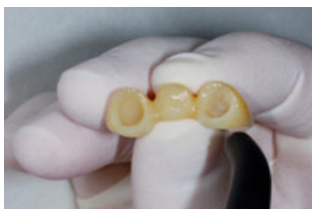
2. Allow to react for 20 seconds.



3. Rinse and dry.



4. Apply Monobond Plus (restorative primer) to internal surfaces of restoration.



5. Allow to react for 60 seconds.

6. Air dry.



Monobond Plus

Universal Restorative Primer

- One simple 60 second application for ALL indirect restorative materials
- Bonds resin-based cements to ALL indirect restorative materials
- Room temperature storage (No refrigeration required)

Step-by-Step Cementation of IPS e.max restorations using various cements recommended by Ivoclar Vivadent

STEPS	SpeedCEM	Multilink Automix	Variolink II	Variolink Veneer
Condition Tooth Preparation	(Not required)	(Not required)	Etch dentin with 37% phosphoric acid for 15 seconds (30 seconds on enamel) Rinse and dry leaving dentin slightly moist.	Etch dentin with 37% phosphoric acid for 15 seconds (30 seconds on enamel) Rinse and dry leaving dentin slightly moist.
Apply Bonding Agent	(Not required)	(1) Scrub 1:1 mixture of Primer A&B on dentin for 15 secs (30 seconds on enamel). (2) Air dry.	(1) Scrub Excite into preparation for 10 seconds. (2) Air dry & light cure for 10 seconds	(1) Scrub Excite into preparation for 10 seconds. (2) Air dry & light cure for 10 seconds
Load Cement	Load cement into (HF etched and silanated) IPS e.max restoration.			
Seat	Seat restoration to place.			
Clean-up	Follow preferred clean-up technique.			
Final cure	Final cure for 10 seconds (e.g. bluephase) from each aspect of restoration.			