



Indirect Cementation Solutions

When choosing the proper dental cement, it is critical to consider the material that is being used for the indirect restoration. Below is a summary of factors to consider for various substrates and restorative conditions.



Dental Substrate Considerations

METAL RESTORATIONS	ZIRCONIA OR ALUMINA	FELDSPATHIC CERAMIC LITHIUM DISILICATE/e.max*	COMPOSITE
<p>Self-cure and dual-cure adhesive resin cements are ideal where little or no light can be transmitted through the restorative material.</p> <ul style="list-style-type: none"> The cement you use should have a strong affinity to metal. If not, use a separate metal/zirconia primer (i.e. Z-Prime Plus). Self-adhesive cements are a good choice for retentive preparations. A self-adhesive resin cement containing the MDP monomer will have a higher affinity to metal (i.e. TheraCem). 	<p>Dual-cure adhesive resin cements are recommended as only some light can be transmitted through the restorative material.</p> <ul style="list-style-type: none"> Dual-cure cements are ideal for crowns, bridges and inlays/onlays. Creating a hydrophobic, resin-loving, surface is imperative. This can be done by applying a primer such as Z-PRIME™ Plus or, by applying a dental adhesive that contains MDP (All-Bond Universal). Application of a primer significantly enhances the bond strength between the resin cement and the dental substrate. If using an MDP containing self-adhesive resin cement (i.e. TheraCem), no primer is required. 	<p>A total-etch or, a universal adhesive system in the total-etch technique, along with a resin cement will yield the best results.</p> <ul style="list-style-type: none"> HF etching & silanization of the ceramic surface is required. A total-etch or, a universal adhesive system in the total-etch technique, is recommended for treatment of the tooth surface. Light-Cure resin cements are ideal for dental veneers as they will prevent potential discoloration (shade shifting) over time and will provide maximum strength. A hema-free bonding resin (Porcelain Bonding Resin) is recommended for the internal surface of the veneer which will also aid in preventing discoloration over time. A dual-cure resin cement is recommended for crowns, bridges, inlays/onlays. 	<p>Dual-cure resin cements are recommended as light may be attenuated as it transmits through the restorative material.</p> <ul style="list-style-type: none"> Any resin cement can be used as they all have a strong affinity to resin composite. A dental adhesive in the self-etch, selective-etch or total-etch technique can be used for a full coverage restoration. For inlays/onlays, a selective-etch or total-etch technique is recommended.



Restorative Considerations

MARYLAND BRIDGES	SHORT CROWNS	POSTS	VENEERS
<p>A total-etch or, a universal adhesive system in the total-etch technique, and a resin cement should be used as the retention of the bridge is highly dependent upon achieving a maximum bond.</p> <ul style="list-style-type: none"> Dual-cure or self-cure resin cements are recommended as light transmission is limited. 	<p>A total-etch or, a universal adhesive system in the total-etch technique, and a resin cement should be used as the retention is highly dependent upon achieving a maximum bond between the tooth surface and restorative material.</p> <ul style="list-style-type: none"> Priming the indirect restorative material is mandatory. 	<p>Dual-cure or self-cure cements and/ or dual-cure core build-up materials (i.e. Core-Flo DC/Core-Flo DC Lite) are recommended for metal posts as no light can be transmitted into the canal.</p> <ul style="list-style-type: none"> Dual-cured resin cements are acceptable for light-transmitting fiber posts. Self-adhesive resin cements are a good option for both fiber and metal posts as it simplifies the bonding/cementation process by eliminating the need for bonding in the canal.* A self-adhesive resin cement containing the MDP monomer will have a higher affinity to metal (i.e. TheraCem). <p>*Post length must be a minimum of 8mm or bonding is recommended.</p>	<p>A total-etch or, a universal adhesive system in the total-etch technique, and a resin cement should be used as the retention of the veneer is highly dependent upon achieving a maximum bond to the enamel.</p> <ul style="list-style-type: none"> A light-cured cement (i.e. Choice 2) will aid in preventing discoloration (shade shifting) over time. A hema-free bonding resin is recommended on the internal surface of the veneer. After HF etching, a pure silane should be used to prime the ceramic surface. It is not recommended to use a silane-containing dental adhesive.

When should a CROWN restoration be BONDED?

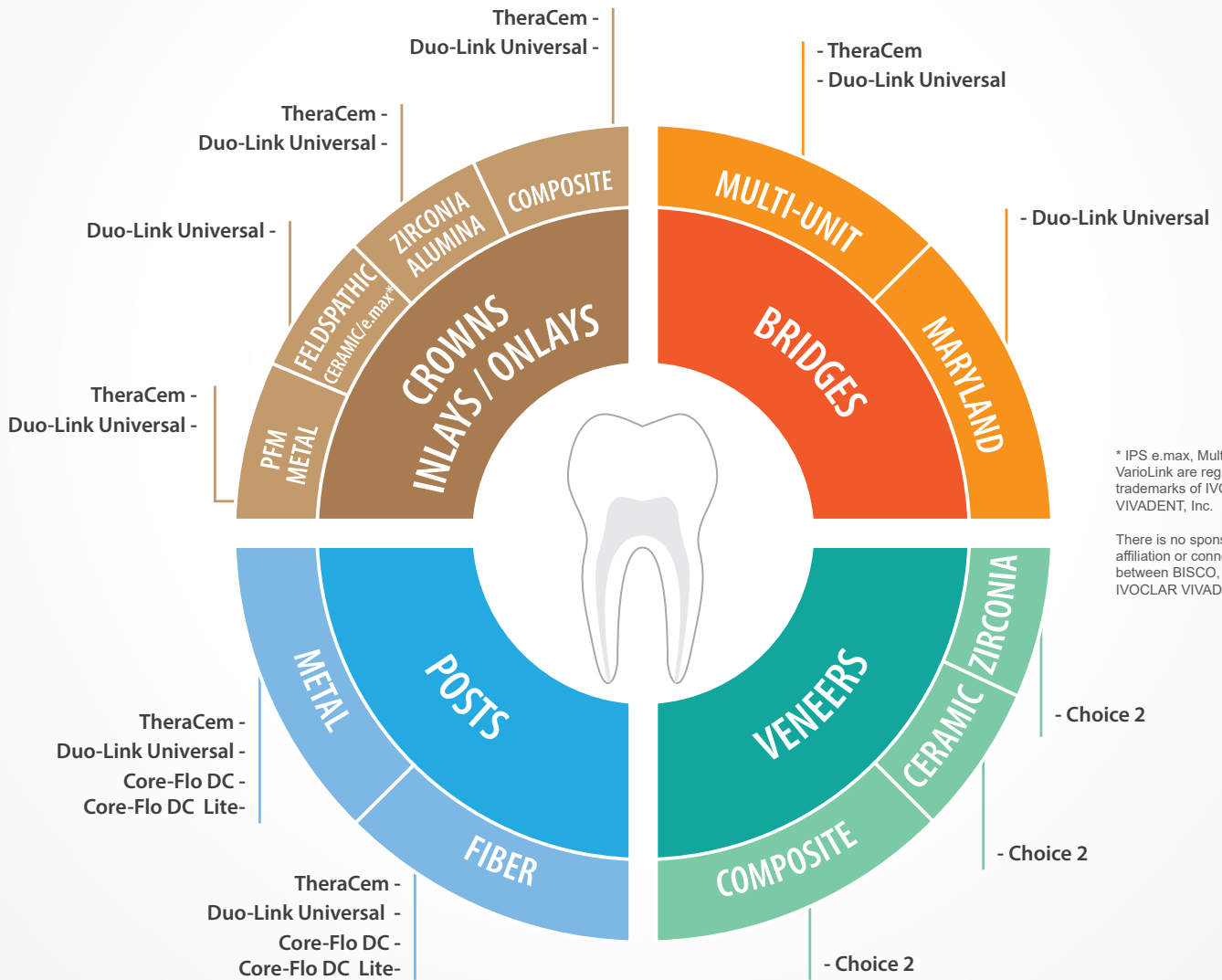
Preparation Height / Taper

By Dr. Ron Jackson

	8°	10°	12°	16°	20°
4mm	Conventional or Self-Adhesive Cement (eg. TheraCem)	Conventional or Self-Adhesive Cement (eg. TheraCem)	Conventional or Self-Adhesive Cement (eg. TheraCem)	Self-Adhesive Cement (eg. TheraCem)	Self-Adhesive Cement (eg. TheraCem)
3mm	Conventional or Self-Adhesive Cement (eg. TheraCem)	Conventional or Self-Adhesive Cement (eg. TheraCem)	Self-Adhesive Cement (eg. TheraCem)	Self-Adhesive Cement (eg. TheraCem)	Bond (eg. All-Bond Universal + Duo-Link Universal)
2mm	Bond (eg. All-Bond Universal + Duo-Link Universal)	Bond (eg. All-Bond Universal + Duo-Link Universal)	Bond (eg. All-Bond Universal + Duo-Link Universal)	Crown Lengthen	Crown Lengthen

CEMENT Selection Guide

BISCO offers the latest technology in cementation and keeps it simple for the clinician by providing a cement line which covers every Dentist's indirect restorative needs.



TheraCem



Duo-Link Universal



Choice 2



Core-Flo DC Lite



Core-Flo DC

RESTORATIVE CLEANERS & PRIMERS



Z-Prime Plus



ZirClean



Bis-Silane

RESTORATIVE ADHESIVES



All-Bond Universal



Porcelain Bonding Resin