



ENHANCED STRENGTH

Superior self-etch adhesion to retentive and non-retentive surfaces



UNIVERSAL APPLICATION

All materials, one system - no activators or primers required



QUICK CLEAN-UP

3 second tack cure, easy clean-up



HIGH ESTHETICS

Excellent resistance to marginal discoloration due to minimal water absorption



ESTECEM II

STRONG. FAST. CLEAN!

A CEMENT AS FAST AS A SELF-ADHESIVE AND AS STRONG AS A DUAL-CURE



EsteCem II

Self-Adhesive (SA) Cement VS Dual-Cured (DC) Resin Cement

May-June 2017 Vol. 24, No.3

“**Self-adhesive resin cements** are easy to use and provide low to medium bond strengths to tooth structure. They do not require the use of a bonding agent on the tooth; however, some bonding agents recommended by manufacturers can be compatible with self-adhesive resin cements.”

Advantages

- Easy to use (no etch or primer required)
- Less technique sensitivity
- Low postoperative sensitivity
- Easy cleanup
- Dual-cured

Disadvantages

- Can have shade shift over-time
- Isolation from moisture/contaminants required

“**Adhesive resin cements** provide medium-high bond strengths and are an excellent choice when retention is of concern with all restorative materials. They differ from self-adhesive resin cements because they require the use of a separate bonding agent on the tooth.”

Advantages

- Can use with all restorative materials
- Can be used when retention is of concern
- Common shades: universal, translucent, and opaque
- Dual-cured

Disadvantages

- Can have shade shift over-time
- Clean up can be difficult
- Isolation from moisture/contaminants required

Features & Benefits – Best Of Both

EsteCem II offers the higher bond strength found in DC resin cements allowing compatibility with all restorative materials. When used with Tokuyama Universal Bond, EsteCem II provides a quick application that is less technique sensitive comparable to SA resin cements

Simple Application – Tokuyama Universal Bond removes the need to light-cure, etch (optional), add silane, add metal primers or DC activators before cementation

- 25 second three-step application of Tokuyama Universal Bond
- Auto-mix paste syringe
- Quick 3 second tack cure
- Easy cleanup

Strong Adhesion – Superior bond strength to all restorative materials – ceramics, metal/fiber posts, resin

- 3D-SR acidic monomer creates a three-dimensional cross-linking adhesion interface for enhanced strength
- Reliably strong adhesion to retentive and non-retentive surfaces
- High bond strength in self-etch mode

Esthetics – EsteCem II paste (hydrophobic) does not contain acidic monomer (hydrophilic) present in SA resin cements.

- Hydrophobicity provides low water absorption and less risk of marginal discoloration
- Stain resistant and low color shift over time

Indications

EsteCem II is compatible with all prosthetic materials regardless of presence of a retentive or non-retentive surface

- ✓ Cementation of crowns, bridges, inlays, and onlays made of glass/oxide ceramics (porcelain, zirconia and alumina), metals/alloys (precious and non-precious) and resin materials including inorganic filler (composite materials)
- ✓ Cementation of veneers
- ✓ Cementation of adhesion bridges
- ✓ Cementation of metal or resin cores, metal or glass-fiber posts
- ✓ Repair of fractured porcelain fused to metal crowns and all ceramic restorations

Automix Paste Syringe Components

Paste A

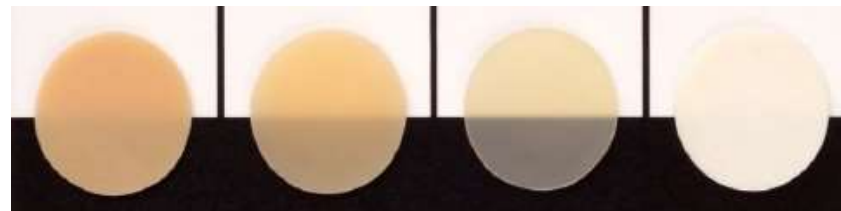
Basic components	Function
Bis-GMA	Matrix Monomer
TEGDMA	Matrix Monomer
Bis-MPEPP	Matrix Monomer
Silica-Zirconia Filler	Filler (Filler Loading 74wt%)

Paste B

Basic components	Function
Bis-GMA	Matrix Monomer
TEGDMA	Matrix Monomer
Bis-MPEPP	Matrix Monomer
Silica-Zirconia Filler	Filler (Filler Loading 74wt%)
Camphorquinone	Polymerization catalyst
Peroxide	Polymerization catalyst

Available EsteCem II Shades

- ✓ Universal: Translucent dentin shade. Ideal for anterior esthetic restorations and majority of cases. Universal shade is included in EsteCem II Kit
- ✓ Brown: Opaque dentin shade. Suitable for ceramic or composite resin crowns
- ✓ Clear: Colorless and transparent shade. Suitable for esthetic crowns and veneers requiring more opacity
- ✓ White-Opaque: A shade with high opacity. Suitable for veneer and cases requiring masking of the underlying dentin or metal/fiber post



Brown Universal Clear White Opaque

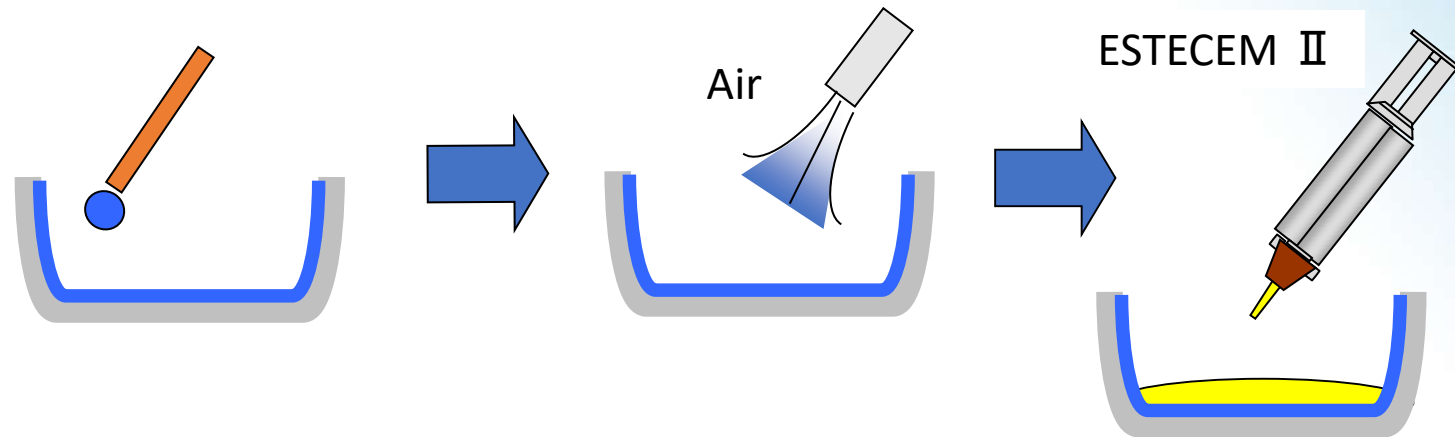


Simple Application

Simple Application – Decrease Chair Time And Hassle

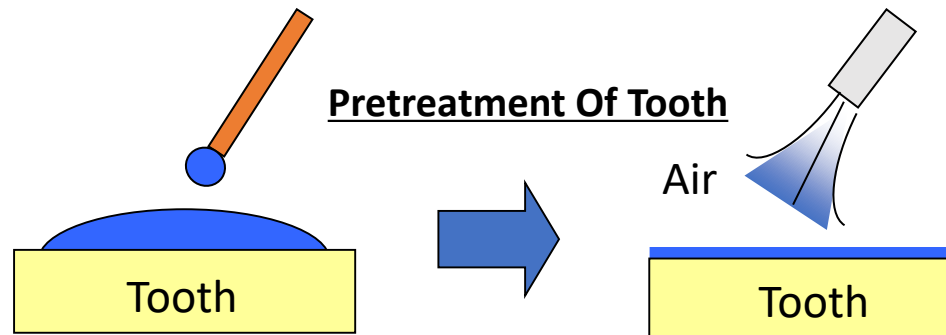
Mix Universal Bond, apply to prosthesis and tooth, and air dry to polymerize in 25 seconds. No need to etch, prime, add activators, or wait before cementation

Pretreatment Of Prosthesis

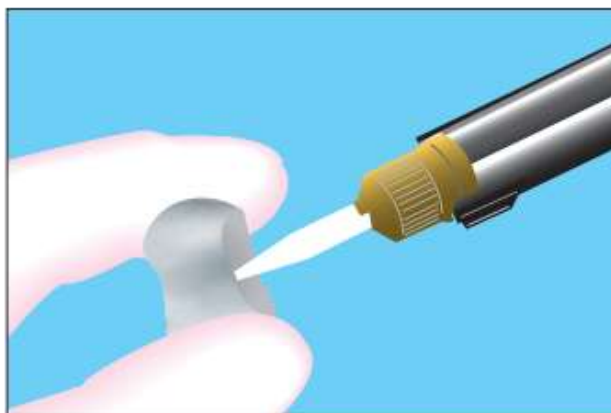


Mix TOKUYAMA
UNIVERSAL BOND

Pretreatment Of Tooth



Simple Application – Tack Cure And Final Cure



Apply the mixed PASTE to the surface of the restoration and place the restoration on the tooth with firm pressure.



Removal of excess PASTE

- When using the light-cure method:
Light-cure the excess PASTE with a dental curing light for 2 to 4 seconds and remove the gel state of the excess PASTE.
- When using the self-cure method:
Remove the gel state of the excess PASTE within 1 to 3.5 minutes after seating.



Final PASTE hardening by light curing

- In case of translucent restoration materials such as ceramics:
Irradiate the light to the applied PASTE on the seated restoration for 20 seconds or more.
- In case of non translucent restoration materials such as metal:
Light-cure along margins for 20 seconds or more, then allow the PASTE to set for 8 minutes.

*If light curing is not enough, there is a possibility of poor adhesiveness.

Tack Cure (Light-Cure)



█ Excess cement can be removed easily
















Tack Cure (Self-Cure)



● Excess cement can be removed easily

Simple Application - Reduced Inventory

All cementation cases can be restored with Tokuyama Universal Bond and EsteCem II. Eliminate extraneous silane, metal primers, dual-cure activators from inventory

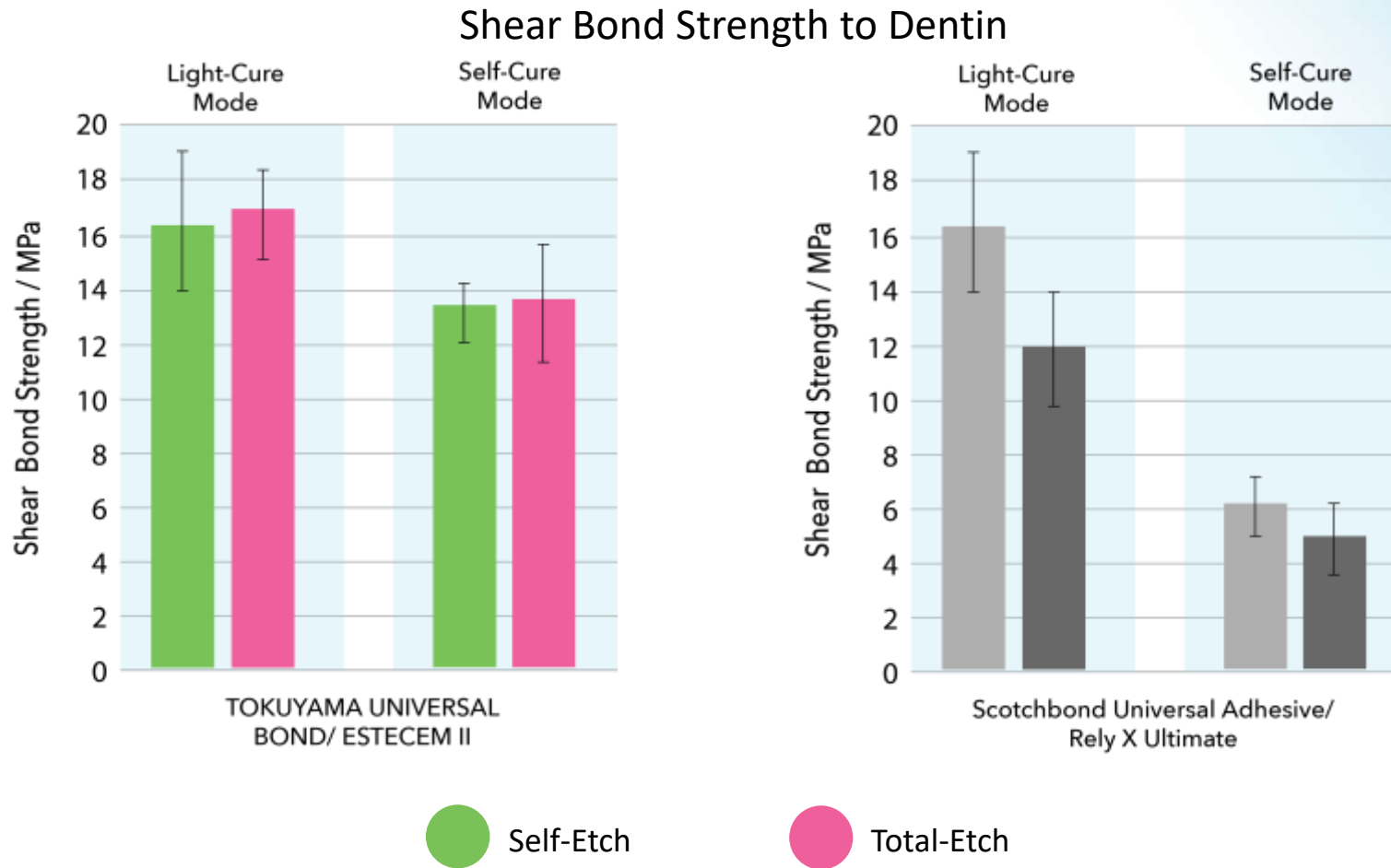
Product	ESTECM II	Panavia V5	Panavia F2.0	RelyX Ultimate	NX3	DUO-LINK UNIVERSAL	Multilink Automix	Variolink Esthetic DC
Teeth		 20sec	 30sec		 20sec 15sec	 10~15sec	 30sec	 20sec
Pricious metal		 20sec		 20sec	No treatment		 60sec	 60sec
non-precious metal								
Ceramics								
Indirect composite							Note: Ceramics primer is needed for ceramics.	
Zirconia								



Reliable Strength

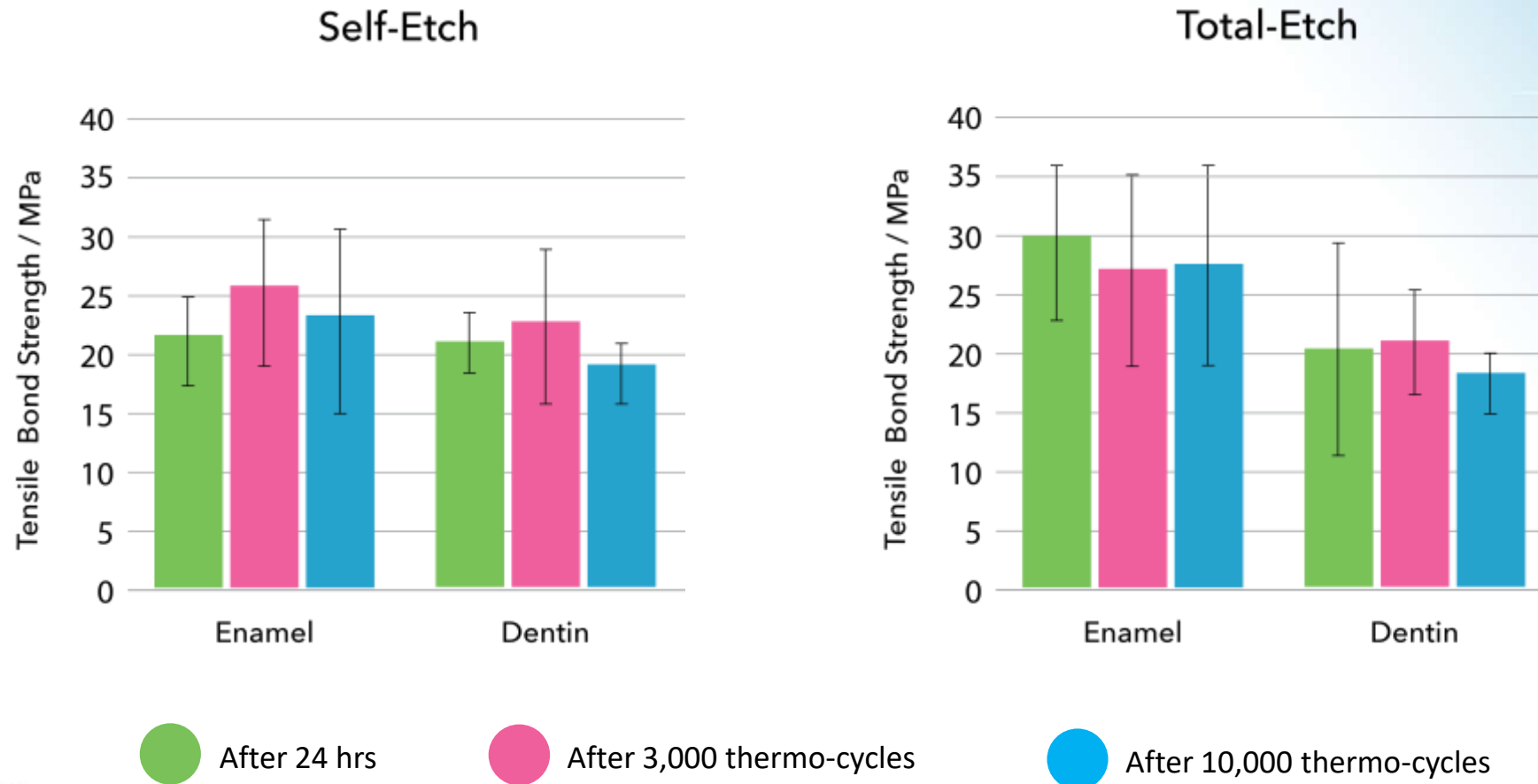
Reliable Adhesion – Regardless of Cure or Etch Mode

Compared to popular DC resin cements on the market EsteCem II has nearly equal bond strength in light-cure or self-cure modes

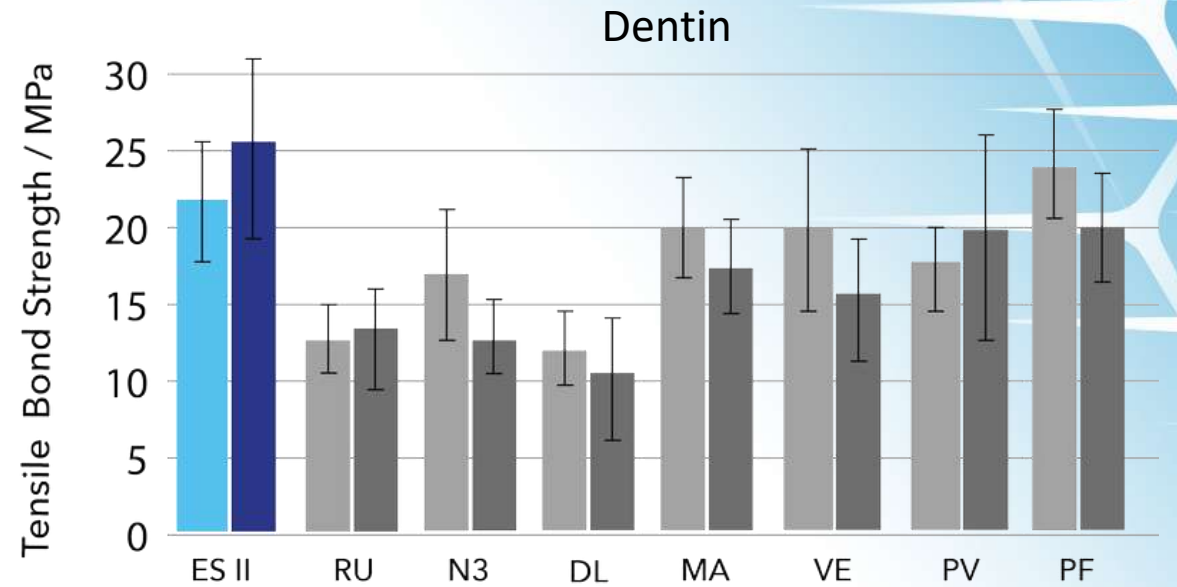
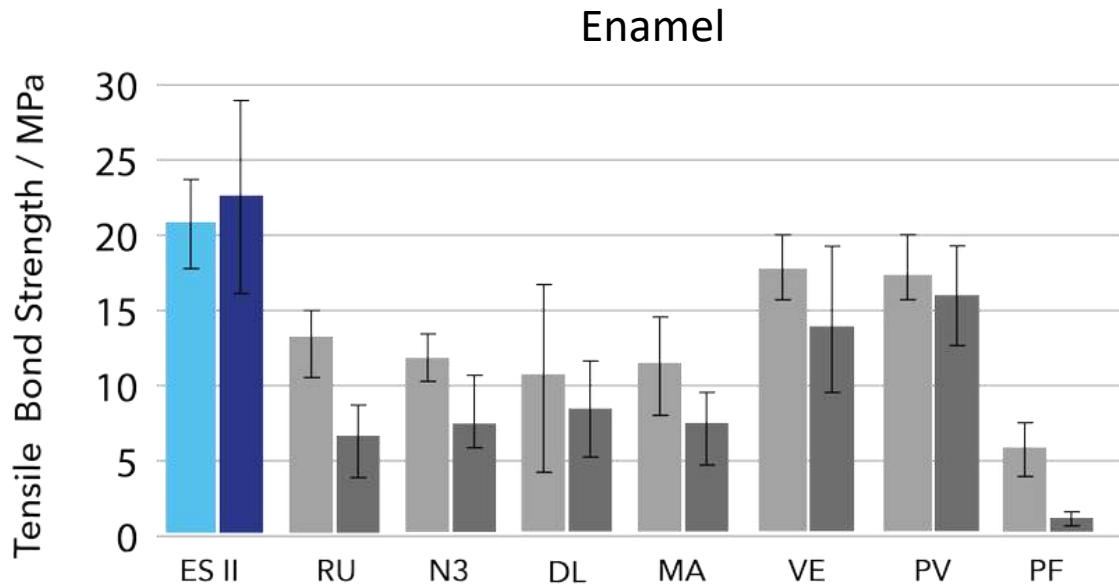


Lasting Bond Strength

EsteCem II is designed to withstand expansion and contraction during intraoral temperature fluctuations



Lasting Bond Strength – Cement Comparison



After 24hrs



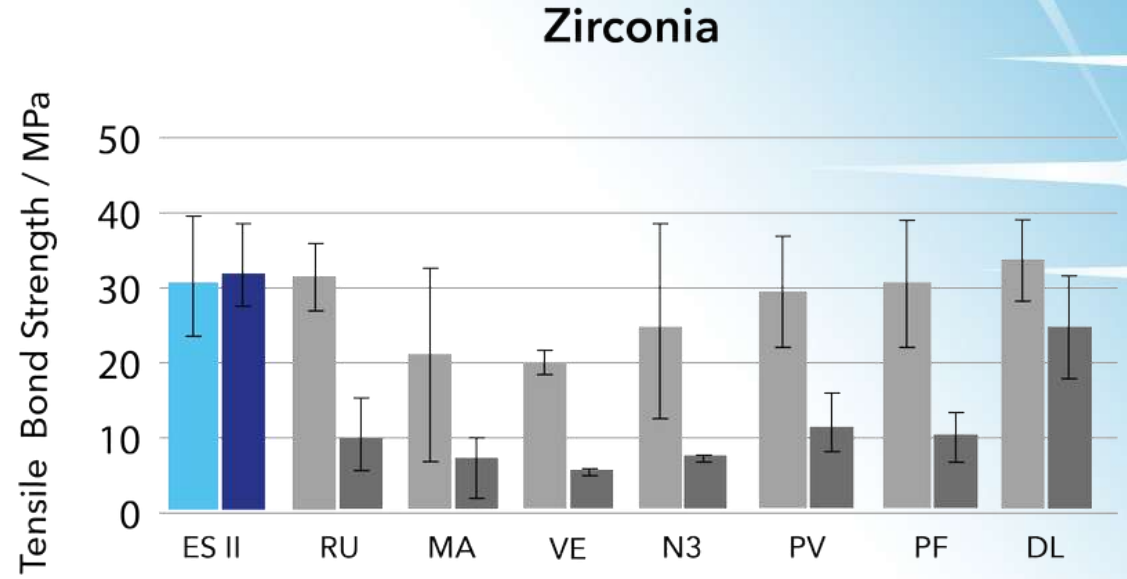
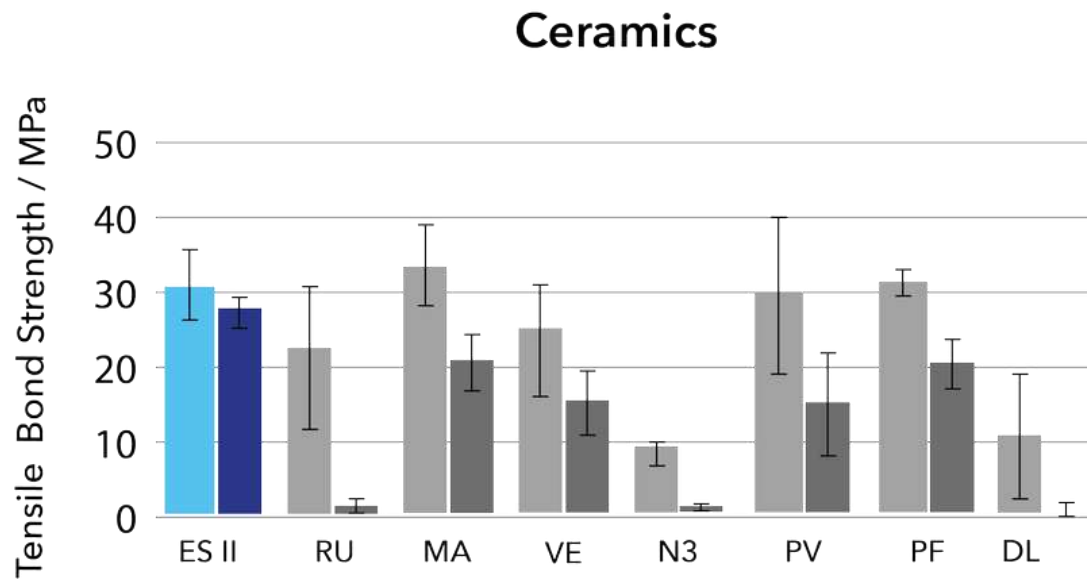
After 3,000 thermo-cycles

ES II: ESTEC EM II
 RU: Rely X Ultimate
 N3: NX3

DL: Duo-Link
 MA: Multilink Automix
 VE: Variolink Esthetic DC

PV: Panavia V5
 PF: Panavia F 2.0

Reliable Bond Strength - Ceramics (eMax), Zirconia (BruxZir, ZirCAD)



After 24hrs



After 3,000 thermo-cycles

ES II: ESTEC EM II

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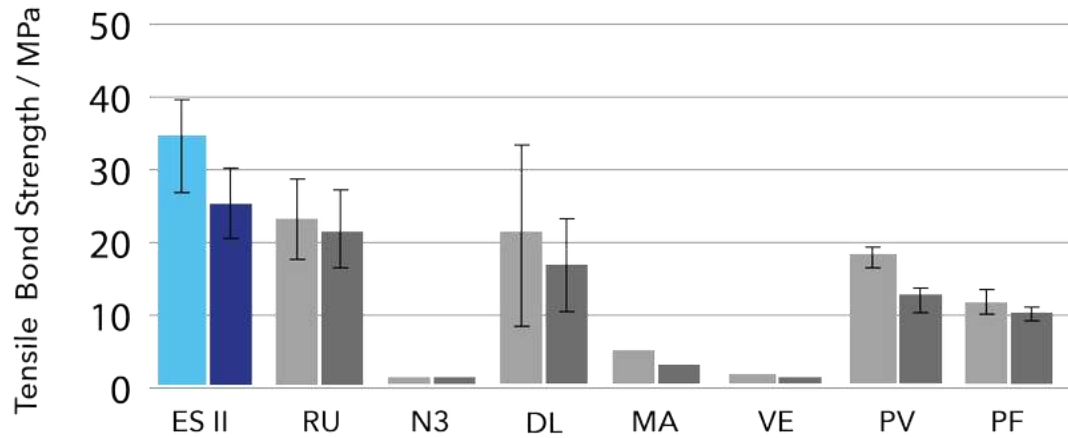
VE: Variolink Esthetic DC

PV: Panavia V5

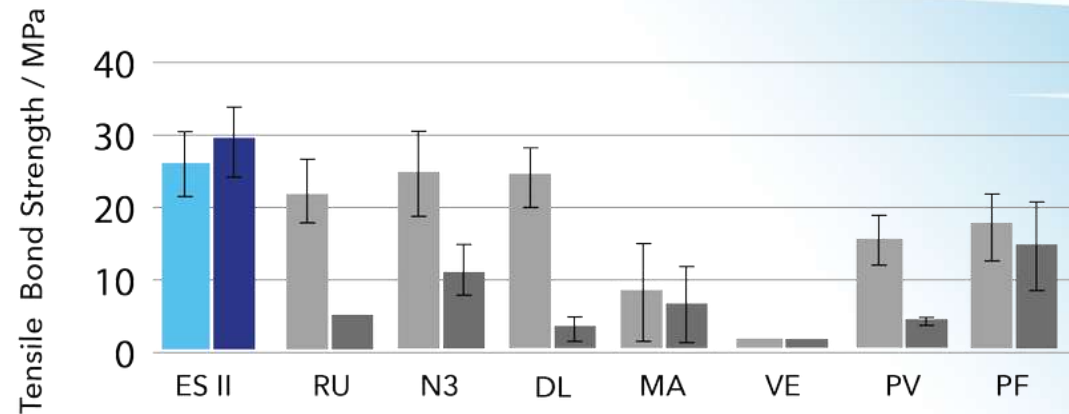
PF: Panavia F 2.0

Reliable Bond Strength - Metal Posts And Intraoral Repairs

Indirect Composite



Precious Metal



After 24hrs



After 3,000 thermo-cycles

ES II: ESTEC EM II

RU: Rely X Ultimate

N3: NX3

DL: Duo-Link

MA: Multilink Automix

VE: Variolink Esthetic DC

PV: Panavia V5

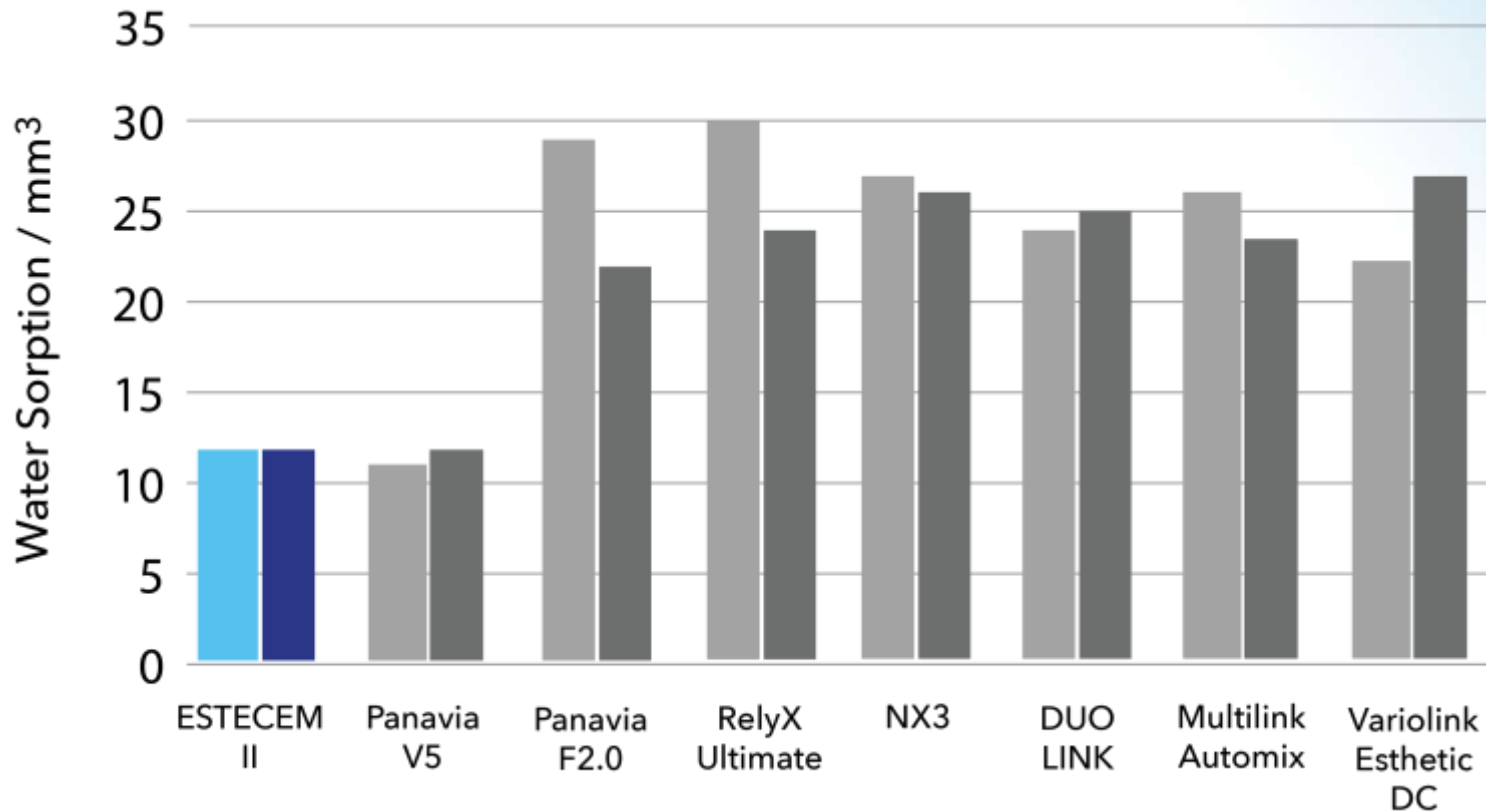
PF: Panavia F 2.0



High Esthetics

High Esthetics - Low Water Absorption




Thin 7 micron (μ) Tokuyama Universal Bond layer (hydrophilic) and EsteCem II (highly hydrophobic) offer less water absorption than other DC resin cements as well as 50-200 μ SA cements that have acidic monomers (hydrophilic) and/or additional hydrophilic monomer groups
















High Esthetics – Stain Resistant

Low water sorption and hydrophobic cured cement significantly reduces risk of marginal discoloration. Providing low color shift even when placed directly in coffee and curry

Staining test with coffee

	ESTECM II	Panavia V5	Panavia F2.0	RelyX Ultimate	NX3	DUO-LINK	Multilink Automix
Shade	UNIVERSAL	UNIVERSAL	LIGHT	A1	YELLOW	UNIVERSAL	YELLOW
Before test							
After test							
ΔE	4.61	12.50	11.83	8.83	8.90	8.18	10.98

Staining test with curry

	ESTECM II	Panavia V5	Panavia F2.0	RelyX Ultimate	NX3	DUO-LINK	Multilink Automix
Shade	UNIVERSAL	UNIVERSAL	LIGHT	A1	YELLOW	UNIVERSAL	YELLOW
Before test							
After test							
ΔE	6.55	8.87	8.40	9.48	9.70	9.56	8.94