

THE DENTAL ADVISOR

TM

"Improved Patient Care Through Research"



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Resin Cements

Resin cements are the luting agents of choice for bonding metal, ceramic and indirect composite restorations. Bonding restorations with adhesive resin cements is technique-sensitive, requiring several materials, specific directions and careful isolation. The bonding agents used with adhesive resin cements are typically 5th-generation adhesives and bond best to moist teeth; however, several cements use self-etching primers.

Resin cements are typically diacrylate resins containing 50-80% glass filler particles with most particles less than 1.0 μm in size. Most are self- and dual-cured resins and require mixing of bases and catalysts. Most resin cements are radiopaque and release small amounts of fluoride. Resin cements are used with bonding agents when bonded to tooth structure. ■

Clinical Tips

- Anesthetic is often needed, as rinsing and gentle air are required.
- Isolation is essential for proper bonding; pack #00 cord when needed.
- After seating the restoration, light cure for 5-10 seconds, remove excess, then post cure for 20-40 seconds.
- Ideal resin cement kit should include 3-5 shades, try-in paste, silane, and a bonding system.
- Thin the bonding agent with gentle air to remove solvent and minimize puddling. Solvent left in the bonding agent can inhibit setting of the resin cement.
- Excess bonding agent may result in a poor fit and possible fracture.

Unique Features

Dual-syringe Dispensing

- *Bistite II DC*
- *C&B Cement*
- *Cement-It Universal C&B*
- *Duo-Link*
- *LinkMax*
- *RelyX ARC*
- *Resinomer*
- *Ultra-Bond Quik*

Encapsulated

- *RelyX Unicem*

Multiple Viscosities Included

- *C&B Cement*
- *Calibra*
- *IllusionNexus 2*
- *Panavia F Light*
- *Variolink II*
- *Vision 2*

Try-in Shades Included

- *Calibra*
- *Choice*
- *Illusion*
- *Lute-It!*
- *Nexus 2*
- *RelyX Veneer*
- *Vision 2*
- *Variolink II*

Self-adhesive Resin Cement

- *RelyX Unicem*

Metal Primer Included

- *Bistite II DC*
- *Illusion*
- *LUTE-IT!*

Rating Resin Cements

Product	Company	Bonding Agent in Kit	Indications	Curing Mode	Viscosity	Working Time, min	Setting Time, min	Shades	Flexural Strength	Flexural Modulus	Cost, \$/ml*	Rating
BISTITE II DC	TOKUYAMA/ J. MORITA USA	PRIMER 1A, 1B, 2	C,IC,M	DC,SC	Low	4.0	3.0	3	M-H	High	52.02	91%
C&B CEMENT	BISCO	None	B,C,IC,M,P	SC	Low	3-4.0	5-6.0	2	M-H	M-H	5.88	na
CALIBRA	DENTSPLY/ CAULK	PRIME & BOND NT/ SELF-CURE ACTIVATOR	B,C,IC,M,P,V	DC,LC,SC	Med, high	2.5	6.0	5	High	M-H	46.08	91%
CEMENT-IT UNIVERSAL C&B	PENTRON CLINICAL TECHNOLOGIES	BOND-1 C&B	C,IC,M	DC,SC	Low	3.0	4.0	3	M-H	Med	17.36	96%
CHOICE	BISCO	None	B,C,M,V	DC,LC,SC	Med	5.5	7.0	10	M-H	High	11.98	91%
DUAL CEMENT	IVOCCLAR VIVADENT	None	C,IC	DC	Med	4.5	8.0	1	M-H	Med	38.90	na
DUO-LINK	BISCO	None	C,IC,P	DC	Med	3.5	7.0	2	M-H	High	9.99	91%
ILLUSION	BISCO	ONE-STEP	B,C,IC,M,P,V	DC,LC,SC	Med	—	—	>3	High	M-H	30.51	90%
INTEGRACEM	PREMIER	INTEGRABOND	C,IC,M,P,A	DC,SC	Low	3.0	3.5	1	Med	L-M	37.81	88%
LINKMAX	GC AMERICA	LINKMAX SELF-ETCH PRIMER	C,IC,M	DC,SC	Low	3.5	6.5	2	High	M-H	47.22	ce
LUTE-IT!	PENTRON CLINICAL TECHNOLOGIES	BOND-1	C,IC	DC,LC	Low	1.5	4.0	9	M-H	M-H	5.66	97%
M-BOND	TOKUYAMA/ J. MORITA USA	PRIMER A, B	C,IC,M	SC	Low	1.7	4.0	2	L-M	L-M	20.81	84%
NEXUS 2	KERR	OPTIBOND SOLO PLUS	B,C,IC,M,P,V	DC,LC	Low, high	3.5	5.5	5	High	M-H	29.71	na
PANAVIA F LIGHT	KURARAY AMERICA	ED PRIMER	C,IC,M	DC,SC	Low	3.0	3.0	1	M-H	High	41.30	97%
RELYX ARC	3M ESPE	ADPER SINGLE BOND	B,C,IC,M,P,A	DC,LC,SC	Low	2.0	10.0	2	M-H	M-H	26.47	92%
RELYX UNICEM	3M ESPE	Self-adhesive	B,C,IC,M,P	DC,LC,SC	Med	2.0	5.0	5	Med	M-H	45.00	ce
RELYX VENEER	3M ESPE	ADPER SINGLE BOND	V	LC	Low	—	—	6	M-H	Med	6.76	98%
RESILUTE	PULPDENT	None	C,IC,M,P,A	Hand	Low	6.0	6.0	2	M-H	M-H	8.95	na
RESINOMER	BISCO	None	M,P,A	DC,SC	Low	4.0	7.0	1	High	M-H	12.37	87%
ULTRA-BOND QUIK	DEN-MAT	None	V	DC,SC	Med	—	10-15.0	3	Med	L-M	10.97	na
VARIOLINK II	IVOCCLAR VIVADENT	EXCITE	C,IC	DC,LC,SC	Low, high	3.5	7.0	12	M-H	M-H	33.59	96%
VISION 2	MIRAGE	ADHESIVE A, B	C,IC	DC,LC	Low, high	1-2.0	3-7.0	6	Med	High	19.53	na

A=amalgam; B=bridge; C=all-ceramic crown, inlay/onlay; IC=indirect composite; M=metal/PFM; P=post; V=veneer

DC=dual-cured; LC=light-cured; SC=self-cured; ce=currently evaluating; na=not available

*Costs are listed for comparison only and are not used to calculate the ratings.

THE DENTAL ADVISOR Recommends:

Cement-It Universal C&B, LUTE-IT!, Panavia F Light, RelyX Veneer, Variolink II



***Cement-It
Universal C&B***
(Pentron Clinical
Technologies)



LUTE-IT!
(Pentron Clinical
Technologies)



Panavia F Light
(Kuraray America)



RelyX Veneer
(3M ESPE)



Variolink II
(Ivoclar Vivadent)