

Scientific Sheet – In vitro studies

G-CEM LinkAce®

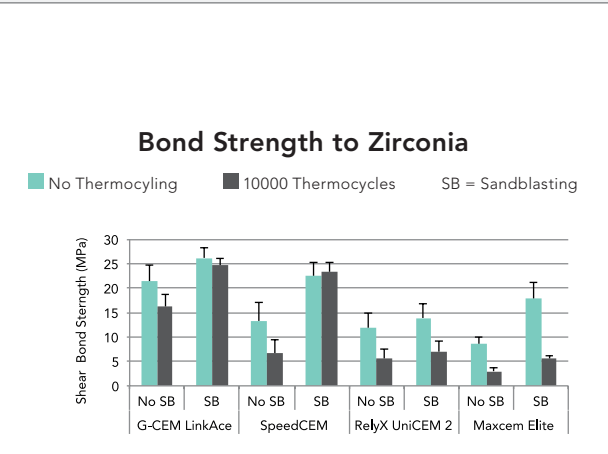
Shear Bond Strength of Auto-mixing Self-adhesive Resin Cements to Zirconia

K. YOSHIDA, K. KAMADA, Y. TAIRA

J Dent Res 91 (Spec Issue B): Abstract 242, 2012



What is being tested?
The shear bond strengths of zirconia (GC) cemented to a composite core build-up with different self-adhesive resin cements: Maxcem Elite (Kerr), SpeedCEM (Ivoclar), RelyX Unicem 2 Automix (3M ESPE), and G-CEM LinkAce (GC).
Clinical Significance
<ul style="list-style-type: none"> • Alumina-blasting may enhance not only the bond strength but also the durability of adhesion to zirconia. • When sandblasting is used, G-CEM LinkAce presents significantly higher bond strength to zirconia than Maxcem Elite and RelyX Unicem2 Automix. • G-CEM LinkAce shows the best bond strength to zirconia when sandblasting is omitted. • No degradation of adhesion has been observed when sandblasted zirconia was cemented with G-CEM LinkAce.



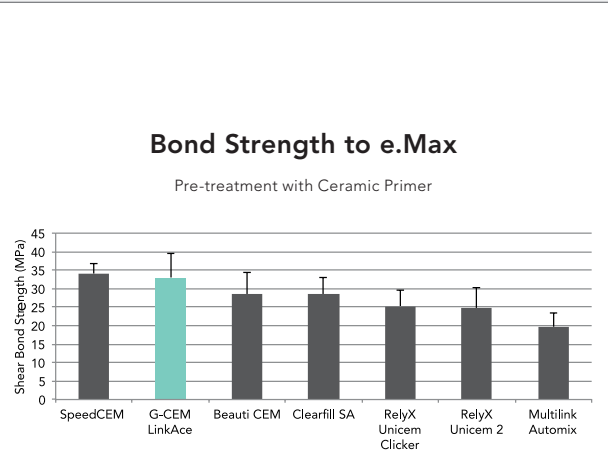
Adapted from: K. YOSHIDA et al., J Dent Res 91 (Spec Issue B): Abstract 242, 2012

Effect of Primers on Bonding of Resin Cements to Ceramics

M. IRIE, J.TANAKA, Y. TAMADA, Y. MARUO, G. NISHIGAWA, Y. YAMAMOTO, S. MINAGI, D. WATTS J Dent Res 91 (Spec Issue B): Abstract 1012, 2012



What is being tested?
The bond strength of different luting cements to IPS e.Max Press (Ivoclar) using six self-adhesive resin cements: SpeedCEM (Ivoclar), RelyX Unicem 2 Automix & Clicker (3M ESPE), G-CEM LinkAce (GC), BeautiCem SA (Shofu), Clearfil SA Cement (Kuraray) and one adhesive resin-cement: Multilink Automix (Ivoclar), and their respective ceramic primers.
Clinical Significance
<ul style="list-style-type: none"> • Despite employing a separate bonding system, Multilink Automix showed the lowest bond strength to e.Max. • Adhesion of G-CEM LinkAce to e.Max was significantly higher than the one of RelyX Unicem 2 (Automix and Clicker), BeautiCEM, Clearfil SA and Multilink Automix. • G-CEM LinkAce may assure higher retention of indirect restorations made of e.Max.



Adapted from: IRIE et al., J Dent Res 91 (Spec Issue B): Abstract 1012, 2012

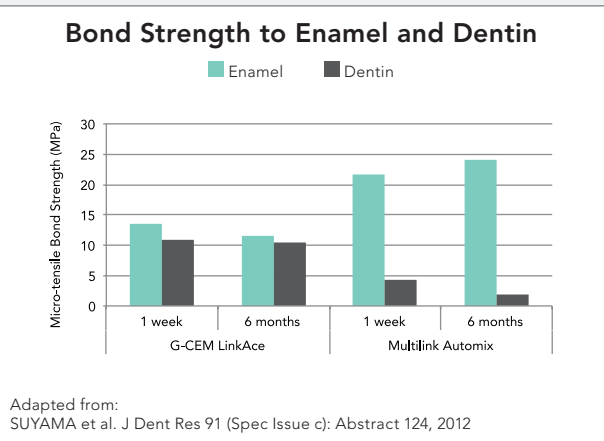


Bond Durability Of A New Self-adhesive Composite Cement



Y. SUYAMA, M. MORIGAMI, J. SUGIZAKI, S. UNO, T. YAMADA, J. DE MUNCK, B. VAN MEERBEEK J Dent Res 91 (Spec Issue c): Abstract 124, 2012

What is being tested?
Bond strength and durability of self-adhesive resin cement G-CEM LinkAce (GC) and adhesive resin cement Multilink Automix (Ivoclar) to enamel and dentin.
Clinical Significance
<ul style="list-style-type: none"> • Multilink Automix presents significantly higher bond strength to enamel but significantly lower bond strength to dentin. • G-CEM LinkAce bonds effectively to both enamel and dentin. This means a more balanced result, assuring an efficient adhesion irrespective of the clinical situation.



In Vitro Wear of Five Cements Against Enamel



M. KYSON, S. KYSON, J. BURGESS, D. CAKIR, P. BECK, L.C. RAMP J Dent Res 92 (Spec Issue A): Abstract 1686, 2013

What is being tested?
The 3-body wear resistance of five cements against human enamel cusps, in both self-cure and light-cure modes : G-CEM LinkAce (GC), RelyX Unicem 2 (3M ESPE), Maxcem Elite (Kerr), Variolink II and Multilink (Ivoclar).
Clinical Significance
<ul style="list-style-type: none"> • Maxcem Elite led to a very high wear when used in self-cure mode. • G-CEM LinkAce and RelyX Unicem 2 showed the best performance in terms of wear resistance. • G-CEM LinkAce is suitable option to cement indirect restorations, especially when their margins are located on the occlusal surface.

