

Author: [ADVANCED](#)

Volume Page

Keyword: [TOP](#) > [Available Issues](#) > [Table of Contents](#) > [Abstract](#)

ONLINE ISSN : 1881-1361

PRINT ISSN : 0287-4547

Dental Materials Journal

Vol. 26 (2007) , No. 2 p.240-244

[\[PDF \(267K\)\]](#) [\[References\]](#)**Effect of Four Silane Coupling Agents on Bonding of Two Resin-modified Glass Ionomer Cements to a Machinable Ceramic**[Kohji KAMADA](#)¹⁾, [Yohsuke TAIRA](#)¹⁾, [Keiichi YOSHIDA](#)¹⁾ and [Mitsuru ATSUTA](#)¹⁾

1) Division of Applied Prosthodontics, Nagasaki University Graduate School of Biomedical Sciences

(Received September 8, 2006)

(Accepted November 16, 2006)

Abstract:

The purpose of the present study was to evaluate the effect of four silane coupling agents on the bond strength between two resin-modified glass ionomer cements and a machinable leucite glass ceramic. Ceramic specimens were ground with silicon carbide paper and cleaned with phosphoric acid. They were then conditioned and bonded with combinations of four silane coupling agents (GC Ceramic Primer, Clapearl Bonding Agent, Clearfil Mega Bond Porcelain Bonding Kit, and RelyX Ceramic Primer) and two resin-modified glass ionomer cements (Fuji Luting S and Fuji Lute). Shear bond strength was determined after 24-hour immersion in water or after thermocycling of 50,000 cycles. The results showed that every silane coupling agent significantly improved the bond strength. It was thus recommended that resin-modified glass ionomer cement be applied in conjunction with silane coupling agent when luting ceramic restorations.

Key words:[Machinable ceramic](#), [Resin-modified glass ionomer cement](#), [Shear bond strength](#)[\[PDF \(267K\)\]](#) [\[References\]](#)

To cite this article:

Kohji KAMADA, Yohsuke TAIRA, Keiichi YOSHIDA and Mitsuru ATSUTA. Effect of Four Silane Coupling Agents on Bonding of Two Resin-modified Glass Ionomer Cements to a Machinable Ceramic . Dent. Mater. J. 2007; 26: 240-244 .

doi:10.4012/dmj.26.240

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