

Author:  [ADVANCED](#)

Volume Page

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

ONLINE ISSN : 1881-1361

PRINT ISSN : 0287-4547

**Dental Materials Journal**

Vol. 25 (2006) , No. 4 p.669-674

[\[PDF \(129K\)\]](#) [\[References\]](#)**Effects of Alumina-blasting and Adhesive Primers on Bonding between Resin Luting Agent and Zirconia Ceramics**[Yukiko TSUO](#)<sup>1)</sup>, [Keiichi YOSHIDA](#)<sup>1)</sup> and [Mitsuru ATSUTA](#)<sup>1)</sup>

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

(Received June 21, 2006)

(Accepted September 6, 2006)

**Abstract:**

This study evaluated the effect of alumina-blasting and three commercial adhesive primers on the shear bond strength of a dual-cured resin luting agent to zirconia ceramics. Two different-sized zirconia ceramic specimens were treated with or without alumina-blasting and then treated with one of three adhesive primers. Subsequently, specimens were cemented together with Linkmax HV (GC). Half of the specimens were stored in water at 37°C for 24 hours and the other half thermocycled 10,000 times before shear bond strength testing. For groups treated with either alumina-blasting or primer, shear bond strength significantly decreased after thermal cycling. For groups treated with both alumina-blasting and one of the three primers, there were no significant differences in shear bond strength before and after thermal cycling ( $p < 0.05$ ). It was thus concluded that the application of each of the three adhesive primers following alumina-blasting was effective for strong bonding of resin luting agent to zirconia ceramics.

**Key words:**[Zirconia ceramic](#), [Resin luting agent](#), [Bond strength](#)[\[PDF \(129K\)\]](#) [\[References\]](#)Download Meta of Article [\[Help\]](#)[RIS](#)

To cite this article:

Yukiko TSUO, Keiichi YOSHIDA and Mitsuru ATSUTA. Effects of Alumina-blasting and Adhesive Primers on Bonding between Resin Luting Agent and Zirconia Ceramics . Dent. Mater. J. 2006; 25: 669-674 .

---

doi:10.4012/dmj.25.669

JOI JST.JSTAGE/dmj/25.669

Copyright (c) 2009 The Japanese Society for Dental Materials and Devices

---



---

[Japan Science and Technology Information Aggregator, Electronic](#)

