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[\[PDF \(967K\)\]](#) [\[References\]](#)**Effect of reactive adhesives on the tensile bond strength of polyvinyl siloxane impression materials to methyl methacrylate tray material**[Masahiro ONA](#)¹⁾, [Hidekazu TAKAHASHI](#)²⁾, [Masayuki SATO](#)¹⁾, [Yoshimasa IGARASHI](#)¹⁾ and [Noriyuki WAKABAYASHI](#)¹⁾

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Abstract:

The effect of new adhesives on the bond strength of elastomeric impression materials to acrylic trays was evaluated. Two polyvinyl siloxane impression materials (Fusion and Imprinsis) with reactive adhesives and one (Examix) with a conventional adhesive were tested. Flat, double-sided plates of auto-polymerizing methyl methacrylate (10×10×2.5 mm) were prepared with one of the adhesives. Five specimens were prepared by injecting each impression material into a 2-mm gap between the two plates. Tensile tests were conducted until separation failure occurred. The mean bond strengths of Fusion (1.0 MPa) and Imprinsis (0.8 MPa) were significantly greater than that of Examix (0.2 MPa). On the contrary, one of five Fusion showed adhesive failure mode while all the Imprinsis exhibited mixed failure. The conflicting results were presumably attributed to the mean tear strength of Fusion (0.8 N/mm) being higher than that of Imprinsis (0.5 N/mm).

Key words:[Polyvinyl siloxane](#), [Adhesive](#), [Bond strength](#)[\[PDF \(967K\)\]](#) [\[References\]](#)

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