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[\[Image PDF \(446K\)\]](#) [\[References\]](#)**Effect of commercially available bonding agents impregnated with fibers on bending strength of hybrid resin**[Sumio TSUSHIMA^{1\)}](#), [Harunori GOMI^{1\)}](#), [Akikazu SHINYA^{1\)2\)}](#), [Daiichirou YOKOYAMA^{1\)}](#), [Pekka K. VALLITTU^{2\)}](#) and [Akiyoshi SHINYA^{1\)}](#)

1) Department of Crown and Bridge, School of Life Dentistry at Tokyo The Nippon Dental University

2) Department of Prosthetic Dentistry and Biomaterials Science, Institute of Dentistry, University of Turku

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Abstract:

To clarify the mechanical properties of fiber-reinforced hybrid resin bridges, this study evaluated the influence of various bonding agents ((Modeling Liquid (ML), DE Resin (DE), Bell Bond (BE), Mega Bond (MG), Durafil Bond (DU), Fluoro Bond (FB), Mac-Bond (MC), EG Bond (EG), Unifill Bond (UN), Single Bond (SN)) impregnated with fibers on bending strength. FB attained the highest bending strength of 570 MPa, whereas SN exhibited the lowest value of 224 MPa, which meant that the bending strength of FB was 2.5 times higher than that of SN. Results of this study suggested that the bending strength of fiber-reinforced hybrid resin was significantly affected by bonding agents impregnated with fibers. Therefore, selection of bonding agent for hybrid resin restoration requires careful consideration of product composition to ensure an optimal bonding agent-fiber combination, thereby imparting improved mechanical properties to the resultant dental restoration.

Key words:[Fiber-reinforced material](#), [Hybrid resin](#), [Bonding agent](#)[\[Image PDF \(446K\)\]](#) [\[References\]](#)

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