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[\[Image PDF \(437K\)\]](#) [\[References\]](#)**Dentin Bond Strengths of Three Adhesive/Composite Core Systems using Different Curing Units**[Meu ARIYOSHI](#)¹⁾, [Toru NIKAIDO](#)¹⁾, [Ayako OKADA](#)¹⁾, [Richard M. FOXTON](#)²⁾ and [Junji TAGAMI](#)¹⁾³⁾

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Abstract:

This study evaluated the tensile bond strengths of three adhesive/composite core materials to bovine dentin using three different curing units. Bovine dentin surfaces were ground with 600-grit SiC paper. Bonding area was demarcated with a vinyl tape (4-mm-diameter hole). Three adhesive/composite core systems—S6054 (experimental), UniFil Core, and Clearfil DC Core Automix—were used with three curing units—Curing Light XL3000 (quartz-tungsten-halogen), Hyper Lightel (high-power quartz-tungsten-halogen), and LEDemetron1 (blue light-emitting diode)—according to manufacturers' instructions. After 24 hours of storage in water at 37°C, tensile bond strengths were measured at a crosshead speed of 2 mm/min. Results were statistically analyzed with one-way ANOVA and Tukey's HSD test ($p < 0.05$). Highest tensile bond strength was obtained using Clearfil DC Core Automix with Hyper Lightel.

Key words:[Tensile bond strength](#), [Composite core](#), [Curing units](#)

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