

Solobond M – Adhesion values

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The shear bonding strength of different one-bottle, total-etch bonds was determined on human enamel and dentine at the Federal University of Santa Catarina (Brazil). ^[1]

Procedure and results

A total of 50 human molars were separated in the mesio-distal direction and embedded in acrylic. The buccal and lingual surfaces were ground flat with sandpaper of differing grits (240, 400 and 600 grit) under water cooling. The different bonding systems were applied on the prepared surfaces according to the respective manufacturer's instructions for use. An increment of composite material was then applied to each (Solobond M: Polofil Supra, Gluma One Bond: Charisma, One Step: Aelite, Optibond Solo Plus: Prodigy, Tenure Quik wF: Virtuoso). After storage in water for 24 h, additional thermocycling was conducted (5/55 °C, 500 cycles) before the adhesive value measurement. The results of the measurement of the shear bonding strength on dentine and enamel are shown in Figure 1.

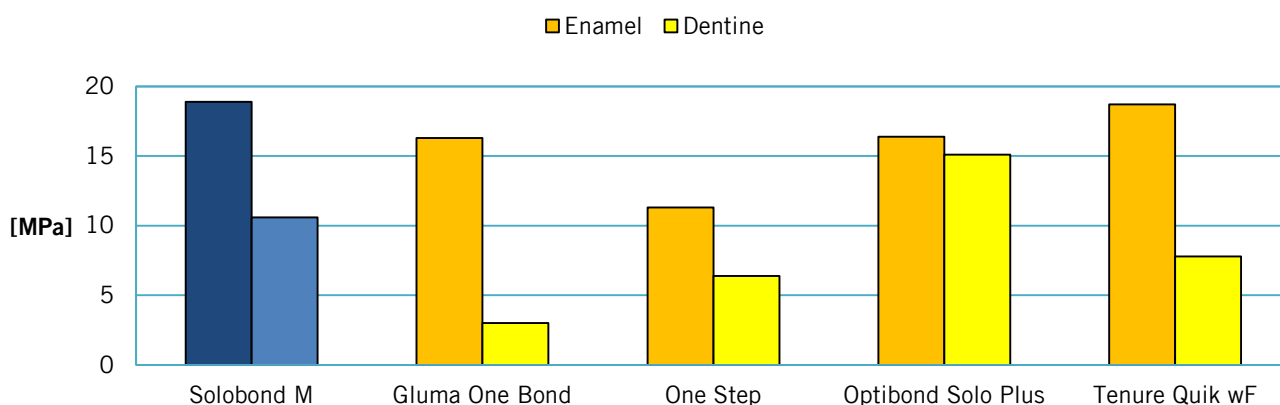


Figure 1: Shear bonding strength [MPa] on human dentine and enamel

Conclusion: Solobond M exhibited the highest adhesive value on enamel and the second highest adhesive value for dentine in the study presented here.

[1] G. C. Lopes, P. C. Cardoso, L. C. C. Vieira, L. N. Baratieri, K. Rampinelli, G. Costa, *Braz. Dent. J.* **2006**, *17*, 39-43.