

Total dark-cure bonding of adhesive/cement systems to dentin

Shear bond strength test results report

PURPOSE

The aim of this study is to determine and compare the shear bond strength to dentin of two adhesive/cement systems.

METHODS AND MATERIALS

All the tested adhesives and cements were supplied by Kerr Corporation.

The following adhesive/cement systems were tested:

- Optibond XTR / NX3 (Kerr Corporation)
- PrimerA + PrimerB / Multilink Automix (Ivoclar-Vivadent)

Twelve dentin specimens per adhesive/cement system were used. Shear bond strength was tested using the Ultradent method. None of the materials was light cured at any point (total dark cure). Bond strength was tested 24h after preparing the samples.

RESULTS

Obtained shear bond strength values are summarized in Table 1.

Table 1 Mean (SD) values of shear bond strength of the tested adhesive/cement systems in total dark cure mode.

System	Mean (SD)
Optibond XTR / NX3	29.01 (10.41)
Primer A + Primer B / Multilink Automix	26.63 (6.66)

Student's t-test revealed no significant differences between the two systems (P=0.513).