

EXT STUDY RESTORATION

Bond Strength of the self adhesive cement SoloCem® to indirect restorative ceramic

SoloCem®

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STUDY AIM

The objective of this study was to assess the bond strength (tensile bond strength, TBS) of a self-adhesive resin cement SoloCem compared to a conventional resin cement Multilink® Automix which is used with MonoBond® Plus on zirconia and on lithiumdisilicate ceramic before and after thermocyclic loading.

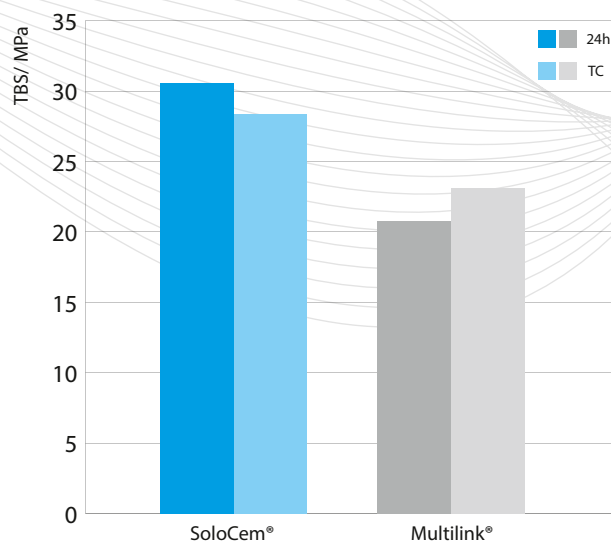
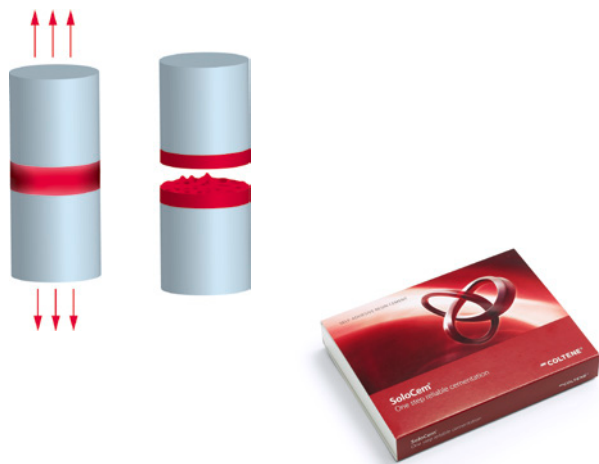
EXPERIMENTAL SETUP

The pretreatment of the lithiumdisilicate (IPS e.max Press®) was HF etching and the pretreatment of the zirconia (IPS e.max Press®) was sandblasting (aluminum oxide 35 µm).

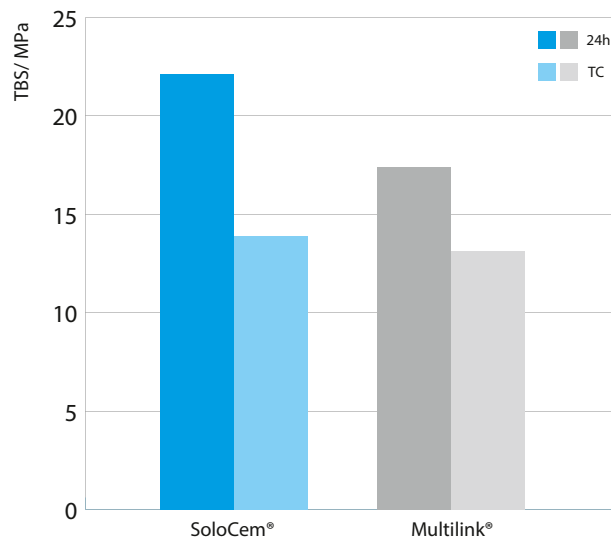
SoloCem was used without additional Primer. Multilink® Automix was used with the Primer MonoBond® Plus. The resulting tensile bond strength was measured after 24 hours water storage at 37°C and after thermocycling with 5000 cycles between 5 and 55°C. Number of specimens for each group was 15.

RESULT

On Zirconia SoloCem showed better tensile bond strength before and after thermocycling compared to Multilink® Automix with Primer. On lithiumdisilicate SoloCem produced significant higher bond strength before thermocycling compared to Multilink® Automix with Primer.



Tensile bond strength on zirconia before (24h) and after thermocycling (TC)



Tensile bond strength on lithiumdisilicate before (24h) and after thermocycling (TC)

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