Materials and Methods

In order to replicate in mouth conditions, shear tests with zirconia bonded to zirconia specimens, with surface treatment, were carried out at room temperature in a universal testing machine (Instron 8874, MA, USA), with a load cell of 25 kN capacity and under a crosshead speed of 0.5 mm/s. The adhesive used was SpeedSEM Plus, Ivoclar-Vivadent, including Ivoclean primary.

Material	Reference	Shear Bond Strength
Feldspathic porcelain to enamel	[Ref. 1] Shear Bond Strength of Porcelain Veneers Rebonded to Enamel, Operative Dentistry, 2015, 40-3, E112-E121	17 – 20 MPa
Feldspathic porcelain to enamel	[Ref. 2] Evaluation of Shear Bond Strength of Ceramic Laminate Veneers After Cementation with Different Types of Resin Cements.". EC Dental Science 18.1 (2019): 46-57.	6 - 17 MPa
Feldspathic porcelain to enamel	[Ref. 3] Shear bond strength of porcelain laminate veneers to enamel,dentine and enamel-dentine complex bonded with differentadhesive luting systems, journal of dendistry, 41 (2013), 97-105	5 – 25 MPa
Zirconia to zirconia	MicroZr Veneer ™	56 – 62 MPa

Conclusions

Results show that shear bond strength of zirconia (MicroZrTMVeneers) is substantially higher than of feldspathic porcelains.

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MicroZrTM Veneers

Veneer Adhesion to Tooth

Abstract

Adhesion of veneers to tooth is of paramount importance. There was a general acceptance that adhesion of cements to zirconia was worse than that of adhesion of cements to porcelain. However there is already a good amount of evidence that with specific zirconia surface treatments, including the one used in MicroZrTMVeneers, adhesion of cements to zirconia is equal or higher than to porcelain. This study reveals some results of adhesion of cements to surface treated zirconia





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