

## **0632 Long-term microleakage with three different composite's systems** [R.A. RAMIREZ](#), and V.J. SETIEN, University of

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**Objective:** The purpose of this research was to compare the sealing capability of three all-composite Class II (human premolars) restorations at the gingival margin. The three systems used were: group 1 ORMOCER (Admira Bond, Admira Flow A2, Admira A2 – Voco), group 2 NANOHYBRID (Solobond M, Grandio FlowA2, GrandioA2 – Voco), group 3 HYBRID (Excite, Tetric Flow A2, Tetric Ceram A2 – Ivoclar – Vivadent).  
**Methods:** 30 human premolars were prepared with 2 single class II and randomly assigned to three groups (G1, G2, G3) with 20 restorations for each one following the manufacturer's instructions. After restored, samples were thermocycled (500 cycles between 5-55°C) and stored in water for 90 days. Then, they were immersed in a 50% of Ag ion solution for two hours, sectioned and analyzed by digital imaging. No-parametric test (Kruskal-Wallis) was used to detect statistical differences. **Results:** Significant differences in microleakage were observed ( $p = 0,002$ ) among the restorative materials used. Respect to the manufacturer's system the mean ranks were 20.98 G3, 31.65 G1, and 38.88 G2. **Conclusion:** Under the conditions of this study, the reduced polymerization shrinkages reported for ORMOCER G1 (1,97vol %) or NANOHYBRID G2 (1,57vol %) don't show best capacity of sealing in gingival margins of class II before water storage when compared to HYBRID G3 (2,32vol %).

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