

Evaluation of surface roughness and color stability of direct resin composites after different polishing protocols**Abdulmajeed Sultan Al Enazi**

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Background: Polished and smooth composite resin restorations present a better esthetic appearance and greater longevity. **Aims:** To compare the effect of different polishing protocols on surface roughness and color stability of two direct composites. **Materials and Methods:** Sixty specimens (6mm in diameter and 2mm in thickness) were divided into six experimental groups (n=10), composite resins (Z250 and 4 Seasons) and polishing systems (Sof-Lex and Jiffy). Baseline readings from surface roughness and CIE L*a*b* color was obtained after polishing procedures. Final roughness readings were made after this step. The specimens were immersed in 2ml of coffee solution under the follow regime: 15 minutes/7 days. After this, new color measurements were realized, getting the color variation (ΔE). **Results:** The results were analyzed by two-way ANOVA and Tukey test ($\alpha = 5\%$). For both values, the polishing systems differed between the group control (unpolished), and each other. The specimens polished with Jiffy showed lower roughness values and color variation. Z250 presents highest roughness values in comparison with 4 Seasons. **Conclusion:** The 4 Seasons composite polished with Jiffy System exhibits lower rates of surface roughness and staining susceptibility. **Key Words:** Roughness; color; resin composites

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