

Selected physicochemical properties of AH Plus, EndoREZ and Realseal SE root canal sealers

Deskripsi Lengkap: <https://lib.ui.ac.id/detail?id=20409269&lokasi=lokal>

Abstrak

The aim of this laboratory study was to assess selected physicochemical properties of three root canal sealers. The solubility, setting time and radiopacity of AH Plus, EndoREZ and RealSeal SE were evaluated. The solubility was determined by weight loss of specimens in water over a period of 28 days. Setting time and radiopacity were assessed according to ANSI/ADA and ISO specifications using an aluminum step wedge calibrated in millimeters and the indentation test using a Gilmore needle. Data were analyzed using ANOVA and the Student–Newman–Keuls test for pairwise comparisons. AH Plus was significantly less soluble, showed the significantly highest radiopacity and displayed the significantly longest setting time of all sealers ($P < 0.01$). At all exposure times, EndoREZ was significantly more soluble than the other sealers ($P < 0.01$) and displayed the significantly lowest values regarding radiopacity ($P < 0.01$). Analysis showed that setting time and radiopacity for all sealers met the ANSI/ADA and ISO standards. Solubility of AH Plus and RealSeal confirmed the ANSI/ADA and ISO specification, while EndoREZ clearly exceeded the proposed solubility value. Out of all sealers tested, AH Plus obtained the best values for all properties.