

Compressive Strength of New Iraqi Dental Cement

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Abstract

Aim: The aim of this research was to evaluate the compressive strength of a newly prepared cement and compare it with results for polycarboxylate cement and American National Standards Institute Specification Number 96 for water based cement.

Materials and Methods: The powder of the new cement was composed of (70%) Calcium oxide (prepared from egg shell), (3%) Hydroxy appetite (prepared from eggshell), (25%) Magnesium oxide, (1.5%) Bismuth oxide, and (0.5%) Calcium acetate. The Liquid was polyacrylic acid.

The new cement was checked for compressive strength, Polycarboxylate cement (from Harvard) was used as a control material and the results on the tested material were compared with the American National Standards Institute Specification Number 96 for water based cement.

Results: the results showed that the newly prepared cement had higher compressive strength than polycarboxylate cement and complied with ANSI/ADA Specification No. 96 for dental water-based cements.

Conclusion: Within the limitations of this research it was concluded that the new cement has greater compressive strength than poly carboxylate cement.