Objective: The aim of the present study was to evaluate the mechanical and thermal characteristics of two denture base acrylic resins containing silver nanoparticles (AgNPs).

Material and Methods Two different acrylic denture base resins (heat-polymerized and microwave polymerized) containing 0.3, 0.8 and 1.6 wt% AgNPs were evaluated for flexural strength, elastic modulus and impact strength. The glass transition temperature (Tg) and relative heat capacity (Cp) of the samples were determined from the Differential Scanning Calorimetry (DSC) results. For statistical analysis, two-way ANOVA and Tukey-HSD tests were performed.

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