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[\[PDF \(105K\)\]](#) [\[References\]](#)**Effects of Mica and Glass on Surface Hardness of Acrylic Tooth Material**[Fatma UNALAN](#)¹⁾ and [Idil DIKBAS](#)²⁾

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Abstract:

The purpose of this study was to evaluate the effects of four different ratios of silanized mica filler and milled glass fiber on the surface hardness of an acrylic denture tooth material. Acrylic resin disks made of polymethyl methacrylate (PMMA) used in fabrication of denture teeth were used as the control group. Eight test groups were prepared by adding a ratio of 5%, 10%, 15%, or 20% by weight of silane-treated mica filler or milled glass fibers to the PMMA resin of denture teeth. Surface hardness test was performed for each group. There were statistically significant differences in surface hardness between the control group and 5%, 10%, and 15% mica- and glass-containing test groups ($p < 0.05$). It was determined that addition of 5%, 10%, and 15% of silane-treated mica filler or silane-treated milled glass fiber to the PMMA resin of denture teeth resulted in significantly improved surface hardness.

Key words:[Acrylic denture teeth](#), [Surface hardness](#), [Fillers](#)[\[PDF \(105K\)\]](#) [\[References\]](#)Download Meta of Article [\[Help\]](#)[RIS](#)[BibTeX](#)

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