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Volume Page

Keyword:    [TOP](#) > [Available Issues](#) > [Table of Contents](#) > [Abstract](#)

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[\[PDF \(468K\)\]](#) [\[References\]](#)**Effect of loading weight on bond durability of composite — type resin cement under cyclic impact test (part 2). Loading with light weight of 100 – 120 g**[Masahiro OHSAWA](#)<sup>1)</sup>, [Mamoru FUJIWARA](#)<sup>1)</sup> and [Yoshihiko HAYASHI](#)<sup>1)</sup>

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**Abstract:**

The bond durability of composite-type resin cement was evaluated by means of cyclic impact tests using three different loads. In terms of experimental setup, a casting alloy, 12% Au-Pd-Ag, was used as the adherend and bonded to a cast block using a composite-type cement (Bistite II). A shear load — using plungers of three different weights at 100, 110, and 120 g — was dropped from a 3-mm height onto a small piece of the casting alloy until debonding. The cycle numbers that caused debonding were  $1756 \pm 680 \times 10^4$  times for 100 g,  $1403 \pm 515 \times 10^4$  times for 110 g, and  $420 \pm 200 \times 10^4$  times for 120 g, respectively. Therefore, the group loaded with 120 g showed a significantly lower value as compared to the other two groups. On the fracture mode of the cement, it was a bulk fracture regardless of the loading weight employed in this study — the same result obtained in a previous study where heavier weights were employed.

**Key words:**[Cyclic impact load](#), [Adhesive resin cement](#), [Bond durability](#)[\[PDF \(468K\)\]](#) [\[References\]](#)Download Meta of Article [\[Help\]](#)

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