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[\[Image PDF \(325K\)\]](#) [\[References\]](#)**Setting properties and sealing ability of hydraulic temporary sealing materials**[Yoko OGURA](#)¹⁾ and [Ichiroh KATSUUMI](#)¹⁾

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Abstract:

This study sought to investigate the setting progress and sealing ability of hydraulic temporary sealing materials used in endodontic treatment: Lumicon, Caviton, and HY-Seal. To evaluate setting progress, the materials were filled into glass tubes with one end sealed and immersed in water. After immersion, a measurement apparatus was inserted from the non-immersed end and the set area was determined by subtracting the unset area from the sample thickness. To evaluate sealing ability, materials were filled into glass tubes and divided into four groups based on different immersion times. Thermal cycling and dye penetration were performed. At 7 days, the setting depths of HY-Seal and Caviton were almost equivalent to full sample thickness, while that of Lumicon was only half of full sample thickness ($p < 0.01$). On sealing ability, Lumicon ranked the highest followed by Caviton, whereas HY-Seal was unstable ($p < 0.01$). These results suggested that there was no correlation between setting progress and sealing ability.

Key words:[Sealing ability](#), [Setting](#), [Temporary filling materials](#)[\[Image PDF \(325K\)\]](#) [\[References\]](#)Download Meta of Article [\[Help\]](#)[RIS](#)

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