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題名	Effect of Vibration Condition on Appearance of Casting in Expendable Casting Process using Artificial Sand
掲載雑誌	25th Annual Conference on Lost Foam, V-Process and Full Mold Casting Technology in Hefei, China, pp.43-49, (2019)
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概要	<p>The effect of the vibration condition of flask on the appearance and dimensional accuracy of the castings in the expendable pattern casting (EPC) process was investigated. When the artificial sand was used, the vibration fluidity of sand was considerably higher than the case of the natural silica sand. When the vibration frequency was sufficiently high, the appearance and dimensional accuracy of castings were good independent of the sand materials. When the vibration frequency was low, there was the leaching of the molten metal due to cracks in the coat wall, causing a positive dimensional difference of the casting from the EPS pattern. However, when the artificial sand was filled, even at slightly low vibration frequencies, the casting appearance was relatively good, and the difference in the dimension of the casting was insignificant.</p>