

Chumporn Changklungmhok 2009: A Study of Correlation between Surface Roughness of Aluminum Filled Epoxy-resin and Cutting Condition. Master of Engineering (Mechanical Engineering), Major Field: Mechanical Engineering, Department of Mechanical Engineering. Thesis Advisor: Assistant Professor Chatchapol Chungchoo, Ph.D. 139 pages.

This Thesis is represents the study of correlation between surface roughness of aluminum filled epoxy-resin “which can be use to make a mold” and cutting conditions. In this work, several cutting conditions (speed, feed rate and depth of cut) were used for creating a surface of aluminum filled epoxy-resin work pieces. Then, these surfaces were measured the roughness, which were tested in 3 dimensional object. The experimental results showed that the parameter (A_m/A_n) can represent the roughness of cutting plane very well. This parameter also responds to the change of cutting speed, feed rate, and depth of cut respectively.

Student's signature

Thesis Advisor's signature

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