Experimental Research of Dry Friction in "Alumina Ceramics – Quartz Glass" Pair

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Results of an experimental research of friction coefficient in "alumina ceramics – quartz glass" friction pair are presented. The research with pin on disc test configuration using SRV–III test machine was carried out at loads from 10 to 1000 N, constant sliding velocities 5 mm/s; ambient temperature 23°C and relative humidity 30%. The obtained results reveal that in general, friction coefficient for "alumina ceramics – quartz glass" pair decreases with the increase in normal load. It is shown that the obtained friction coefficients values at the normal force from 100 to 1000 N for the given experimental conditions can be used to pre-estimate the interference fits in "alumina ceramics – quartz glass" friction pairs.

Keywords: Friction coefficient, Friction force, Alumina ceramics, Quartz glass, Normal load.

Acknowledgement

The reported study was funded by RFBR according to the research project No. 16-38-00719 "Investigation of brittle contact interaction interface of non-metallic interference fit parts".
The contribution is sponsored by project KEGA MŠ SR No 006STU-4/2015 prepared project „University textbook "The means of automated production" by interactive multimedia format for STU Bratislava and Košice".
This publication is the result of implementation of the project: "UNIVERSITY SCIENTIFIC PARK: CAMPUS MTF STU - CAMBO" (ITMS: 26220220179) supported by the Research & Development Operational Program funded by the EFRR.

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Paper number: M201726
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