

Measurements of Friction Coefficient on Kitchen Floors in Restaurants

李開偉, 林軒丞, Ching Chung Chen, Liwen Liu, Chih-Yong Chen

Industrial Management

Management

kai@chu.edu.tw

Abstract

Friction measurements in the field were conducted in twelve restaurants in Taiwan. Four restaurants for each of the Chinese style, western style, and western style fast food restaurant were visited. The Brungraber Mark II slipmeter was adopted to measure the coefficient of friction (COF) in three areas in each of the restaurant. The results showed that three, two Chinese style and one western style, of the restaurants had mean COF lower than 0.5, a safety standard commonly adopted in the USA. Engineering/managerial interventions are required for those restaurants as far as employee safety is concerned. The fast food restaurants had more consistent COF levels than those of the other two types of restaurants as these restaurants only operate down-stream food preparation in the store. The Chinese style restaurants had significantly ($p < 0.05$) lower COF than those of the western style restaurants. This was consistent with the commonly belief that Chinese style cuisine is much greasy, in general, as compared to those of western cooking.

Keyword : slip & fall, floor slipperiness, coefficient of friction, field measurement