

Friction Measurements in a Hand Tool Factory
李開偉, Chen, Ching Chung, Liu, Liwen, Chen, C. Y.
Industrial Management
Management
kai@chu.edu.tw

Abstract

Floor slipperiness has been identified as one of the major risk factors affecting the occurrence of slipping and falling on workplaces. Floor slipperiness assessment was conducted in a factory manufacturing hand tools in Taiwan. Three areas in the machine shop factory were measured. The friction measurements were conducted using the Brungraber Mark II slipmeter. A total of 96 measurements of the coefficient of friction on the floor were conducted. In addition, six employees were interviewed concerning their experiences of slipping and falling in the sector and their perception of floor slipperiness. The results showed that the floor in the sink area had significantly ($p < 0.0001$) lower COF values than the other two areas. The COF values in the sink area were all less than 0.5, a safety standard commonly adopted in the USA. Six of the employees in the factory were interviewed concerning their perception of floor slipperiness and their experiences of slipping & falling in the working areas. The results were discussed.

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