DEVELOPMENT OF AUTOMATED GLOVE DIPPING MACHINE: A PROTOTYPE

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ABSTRACT

Laboratory trials are very important for innovations and developments in rubber glove industry. After developing new formulations, currently manual dipping is carried out to manufacture glove samples. But problems such as changing dwell time, dipping speed & withdrawing speed and knocking formers in the bottom of vessels can be observed in this method. To overcome those problems, an automotive glove dipping machine was developed. To program the machine, "Arduino" programming tool was used. After that number of trials were carried out and compared the physical properties of sample gloves made by new method and the manual method which used previously. The measured physical properties are abrasion resistance, tensile strength, tear resistance, puncture resistance and blade cut resistance. Abrasion resistance, tensile strength, tear resistance puncture resistance & glove thickness have shown precise properties in new method. Therefore, this method can be applied easily in laboratory scale, in order to obtain unique glove sample.

Key words: Dipping speed, Dwell time, Knocking formers, Laboratory trials, Withdrawing speed