

<b>Thesis Title</b>	Improvement of Impact Strength of PVC Sheet by Using Natural Rubber
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## **ABSTRACT**

The objective of this research work is to improve impact strength of PVC sheets by using natural rubber (NR) as an impact modifier by mixing latex natural rubber with a filler, calcium carbonate ( $\text{CaCO}_3$ ). In this research work, the PVC sheets were compounded by two roll mill and then shaped by compression molding machine. Mechanical testing and surface study of PVC sheet were then carried out. It was found that addition of 14% of latex to the rigid PVC compound showed the highest impact strength and good elongation whereas tensile strength, the hardness and the density had a trend to decrease.

The study on the surface of PVC sheets by using the Scanning Electron Microscope (SEM) found that the latex was not miscible to the PVC, however the latex had good dispersion in the PVC.