A THESIS

Entitled

"STORAGE HARDENING OF RECLAIMED RUBBER"

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by

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ABSTRACT

Storage hardening of reclaimed rubber is a major problem for many industrialists who manufacture reclaimed rubber. In this project the cause for storage hardening of reclaimed rubber was investigated through four major test methods. The Mooney viscometer was used to measure the change in viscosity for aged and unaged samples of reclaimed rubber samples. Accelerated storage hardening test was used to accelerate the hardening of reclaimed rubber, through which change in viscosity, plasticity etc were discussed. Chloroform extractions were carried out to study the change in unbound rubber particles present in reclaimed rubber, when subjected to accelerated storage hardening. IR spectrophotometer was used to get IR spectra to study structural change in rubber molecules.

Slight decrease in plasticity and viscosity were observed, when some additives were added to reclaimed rubber. These results indicate that addition of additive to reclaimed rubber may have some effect storage hardening of reclaimed rubber.

Results of tensile properties have shown that these additives have no effect on tensile properties of reclaimed rubber, because small quantities of additives were used.

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