

Thesis Title Study of The Preparation of NR/NBR
Laminates

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ABSTRACT

The present work involved studies to improve the peel strength of NR/NBR laminates. The effect compounding ingredients such as liquid polymer, epoxidised natural rubber and epoxidised liquid natural rubber were determined. The effect of contact time, contact temperature and rubber viscosity were investigated. The effect of commercial adhesive and chlorination on NR/NBR adhesion were also studied.

The result obtained show that compounding by addition of liquid polymer, epoxidised natural rubber and tackifier could improve the peel strength by 7-9 times. The contact time for

optimum peel strength was found to be the appropriate was 10 minutes and contact temperature should be at 100^o C. The lowering of NBR compound viscosity to match that of NR compound resulted in increasing peel strength by 3.4 times. The commercial adhesive were found to give highest peel strength by 32 times. Chlorination of NR compound could improve the peel strength 3 times higher than that of the untreated specimen.