CHAPTER V
CONCLUSIONS

The following conclusions were obtained:

1. From spectroscopic study and contact angle measurement, PDMS migrated to both sides of the rubber surface, i.e. the surface facing glass and the surface facing air.

2. Autohesive tack descreased as PDMS content increased. At 15% PDMS by weight, the autohesive tack was essentially zero. After aging, autohesive tack for CPD and CSE5 increased in sheet compound but was the same in dipped film. This is due to small polar molecules in NR diffusing to the surface after aging.

3. Tensile strength decreased with increasing the amount of PDMS due to weakening caused by PDMS in bulk rubber. The tensile strength was even smaller after aging due to more mixing of PDMS with the bulk rubber. The elongation at break decreased slightly. For dipped film, tensile strength before and after aging was not affected by PDMS.

4. For vulcanized rubber sheets and vulcanized rubber films before and after aging, PDMS did not affect percent of elongation.