

CHAPTER V

CONCLUSIONS

1. MA improves interfacial adhesion and enhances impact strength for LLDPE/NR 90/10 and 50/50. Tear strength increases with increasing MA content for composition 90/10 but shows less effect for composition 50/50.

2. Addition of DCP enhances LLDPE grafting to MA which improves impact strength for both compositions and enhances the resistance to extension. The reduction of crystallinity decreases tear strength for composition 90/10 but has little effect for composition 50/50 due to effect of more crosslinking in composition 50/50. The lower number of loading cycles necessary to fracture the specimen and the lower fatigue resistance are obtained by the addition of DCP.

3. Tear strength decreases with increasing NR content. Impact strength shows a weak dependence on NR content. Tensile strength decreased and elongation at break increased with increasing NR content.

4. Weathering causes the reducing mechanical properties for both compositions with increasing DCP and less inferior mechanical properties for both compositions with increasing MA. However, increasing NR content leads to more degradation and lowering the mechanical properties of composition 80/20 and 90/10. Conversely, weathering seems to induce crosslinking in samples of high NR composition so that the reduction in tensile strength is small and elongation at break reduces largely.