CHAPTER V
CONCLUSIONS

1). Low molecular weight NR results to decrease tensile properties of the LLDPE/NR blends but exhibits better compatibility as seen by more homogeneous morphology.

2). Melting and crystallization temperatures show slight change with composition and M_W of NR.

3). The decrease in percent crystallinity (%X_c) occurs when low M_W or more amount of NR is added. Rubber phase obstructs the crystallization of LLDPE due to its high chain mobility and retarding diffusion of LLDPE chains.

4). The VST decreases with increased NR content due to softness and amorphous nature of NR. For high temperature application, the effect of NR loading on VST must be concerned.

5). Adding MA in the blends improves compatibility as seen by single T_g and more stabilized structure of blends to improve mechanical properties.

6). Enthalpic mixing (adding of MA) is more effective to improve both compatibility and blend properties than entropic mixing (adding low M_W of NR).

7). The tensile strength properties increase initially with increasing MA content, and then levels off and decreases at higher concentration of MA.

8). The VST slightly increases with MA concentration due to the improvement of the interface adhesion between LLDPE and NR phases.

9). The increasing of M_W of NR shows the lower MFI due to the longer chain length and increased number of chain entanglements.

10). The MFI decreases with increasing NR content.

11). The increasing of MA shows the decrease of MFI attributed to the specific interaction between two phases.