

CHAPTER 4 : CONCLUSION

4.1 Findings

- The spectra obtained from FTIR-transmission is different in shape and intensity from that obtained via FTIR-ATR.
- The FTIR-ATR spectrum gives a higher band intensity at longer wavelengths compared to the FTIR-Transmission spectrum.
- Interference fringes were detected in the FTIR transmission spectrum.
- The FTIR transmission spectrum of all the analysed plastics closely resemble that of polyethylene.
- The DSC data suggests that all the analysed plastics are low density polyethylene-based with a melting point range of 108°C to 111°C except for the plastic bag for reclaimed rubber which is linear low density polyethylene-based with a melting point around 124°C
- The test results of softening point do not show good repeatability.
- A majority of the test results of softening point are higher than those obtained by the DSC technique.