## Appendix A:Natural Rubber

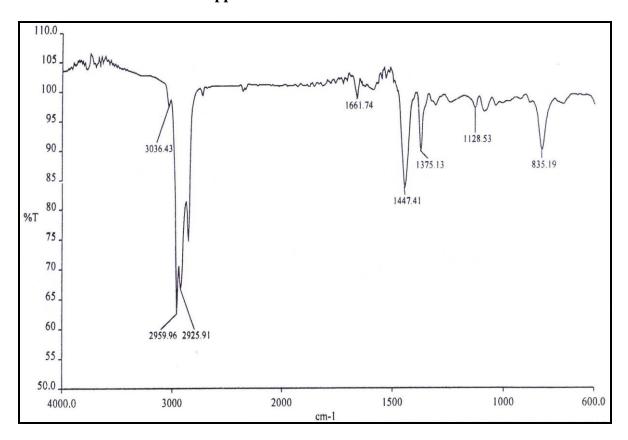


Figure 1: FTIR spectrum of Natural rubber

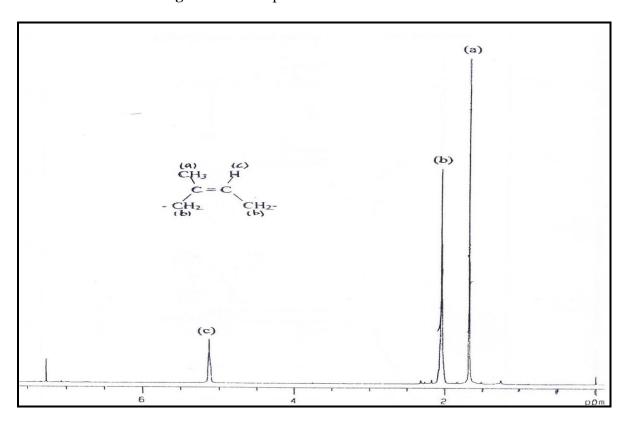


Figure 2: NMR spectrum of natural rubber

### Appendix B:FTIR spectra of fusion cook alkyds

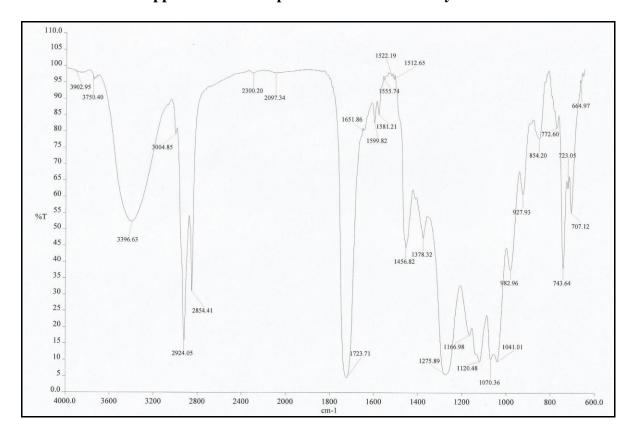


Figure 1: FTIR spectra of Alk-45

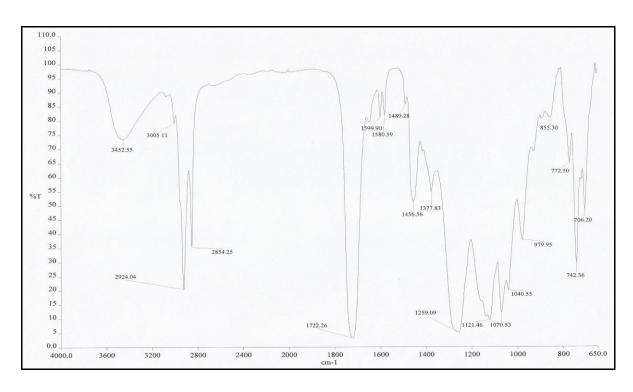
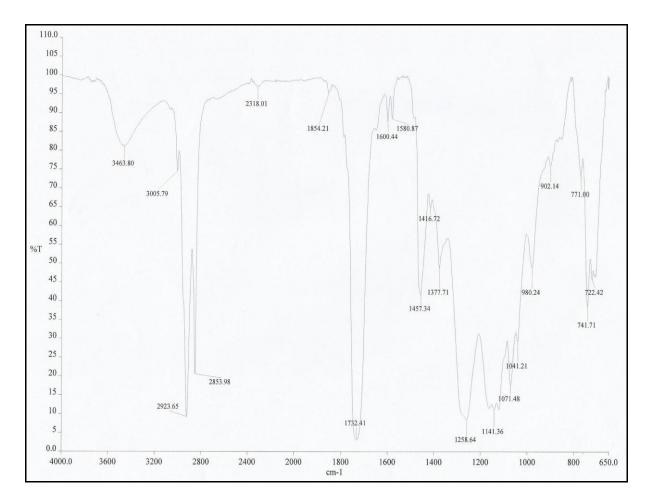
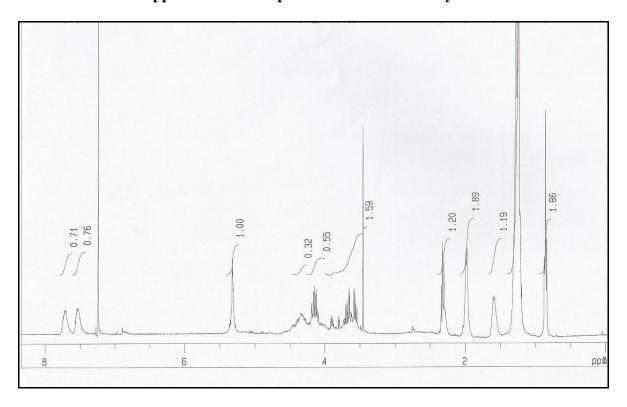


Figure 2: FTIR spectra of Alk-47

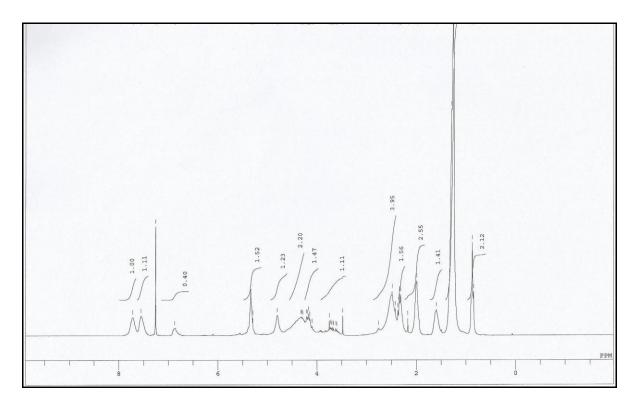


**Figure 3:** FTIR spectra of Alk-65

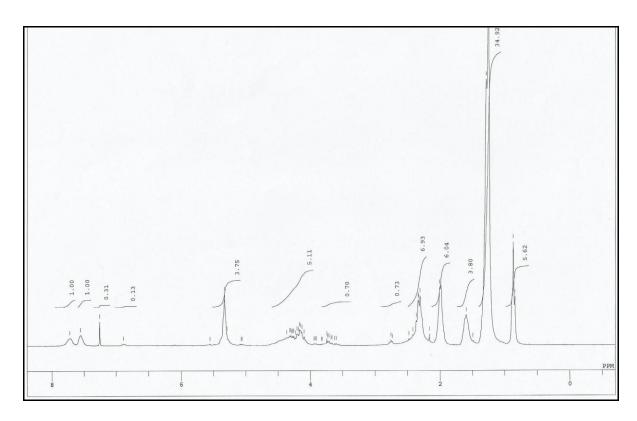
# Appendix C:NMR spectra of fusion cook alkyd



**Figure 1:** NMR spectra of Alk-45

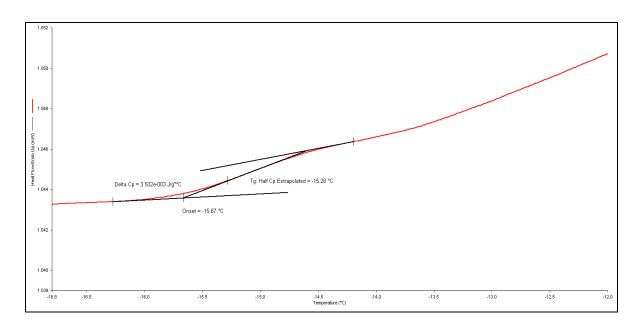


**Figure 2:** NMR spectra of Alk-47

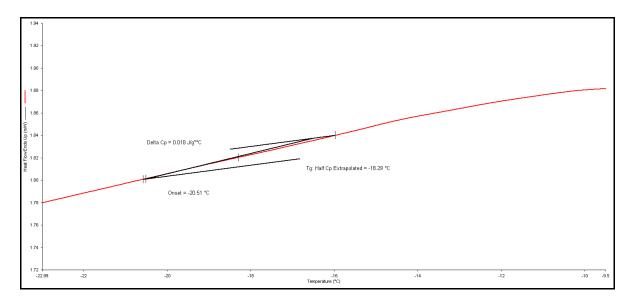


**Figure 3:** NMR spectra of Alk-65

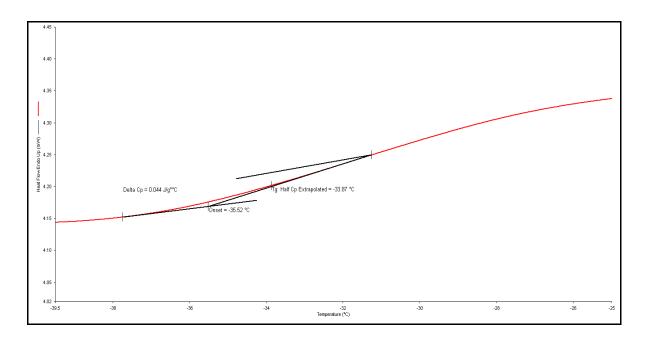
# Appendix D:DSC thermograms of fusion cook alkyd



**Figure 1:** DSC trace of Alk-45



**Figure 2:** DSC trace of Alk-47



**Figure 3:** DSC trace of Alk-65

## Appendix E: TGA thermograms of fusion cook alkyd

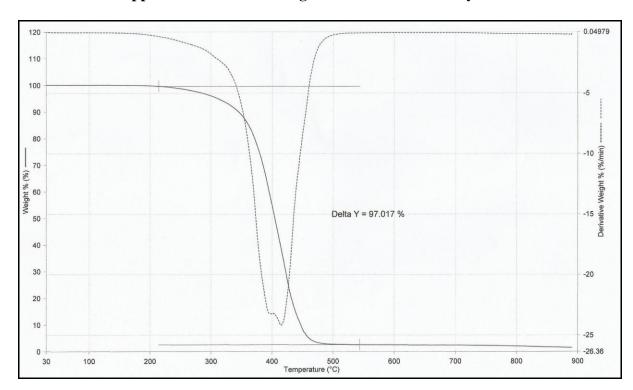


Figure 1: TGA thermogram of Alk-45

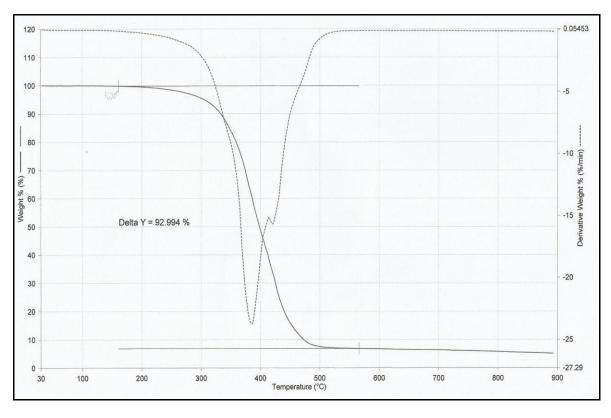
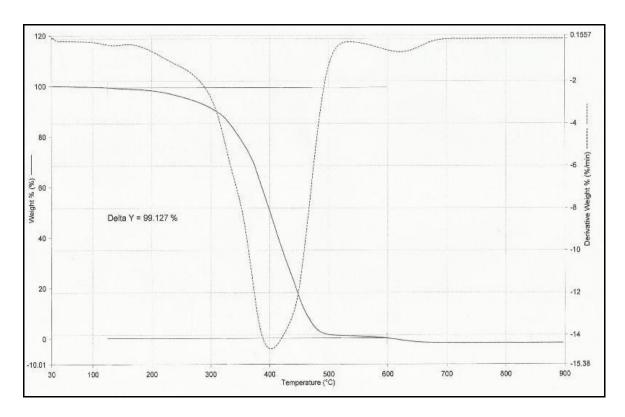


Figure 2: TGA thermogram of Alk-47



**Figure 3:** TGA thermogram of Alk-65

#### Appendix F:GPC chromatograms of fusion cook alkyd

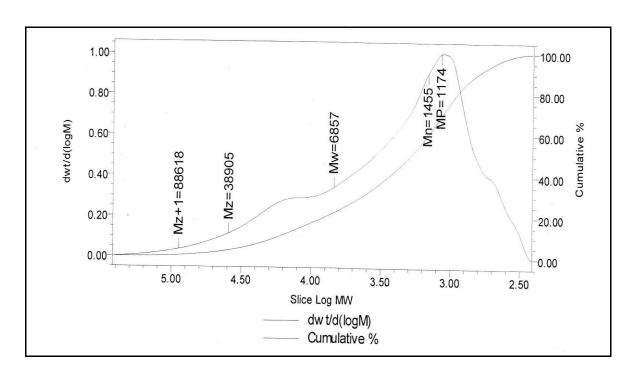
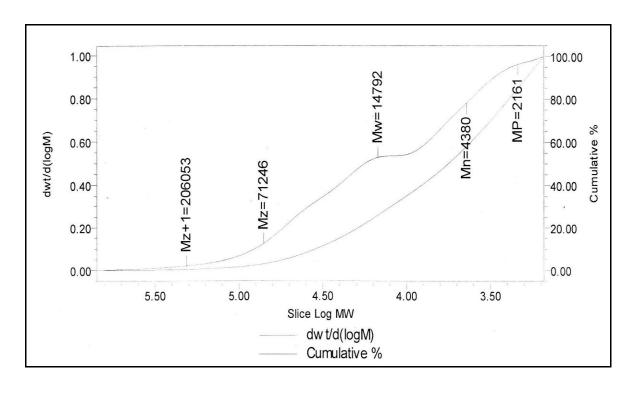
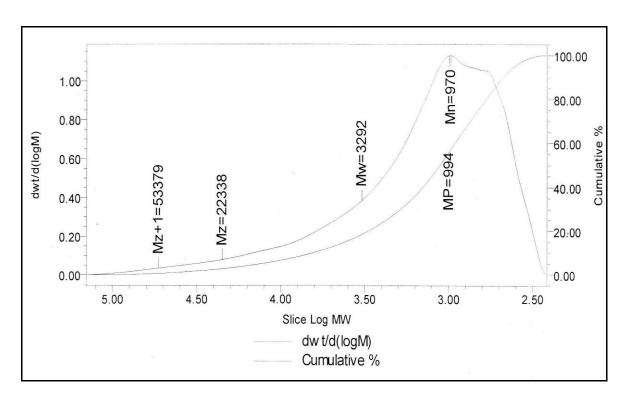


Figure 1: GPC chromatogram of Alk-45



**Figure 2:** GPC chromatogram of Alk-47



**Figure 3:** GPC chromatogram of Alk-65

#### Appendix G: Viscosity, shear rate and shear stress profile of alkyd emulsion

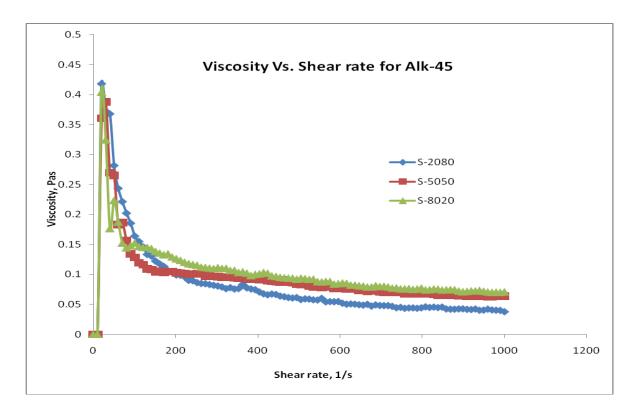


Figure 1: Viscosity Vs Shear rate for Alk-45 emulsion at different surfactant ratio

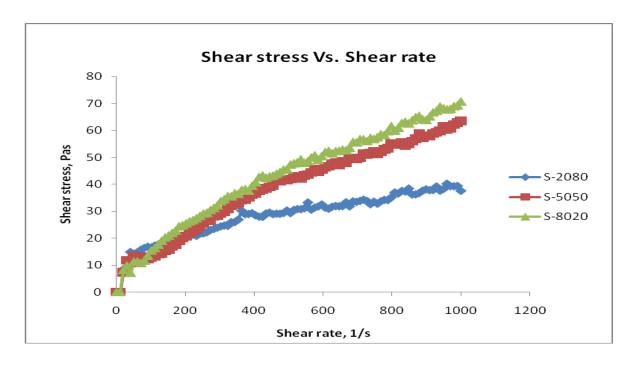


Figure 2: Shear stress Vs. Shear rate for Alk-45 emulsion at different surfactant ratio

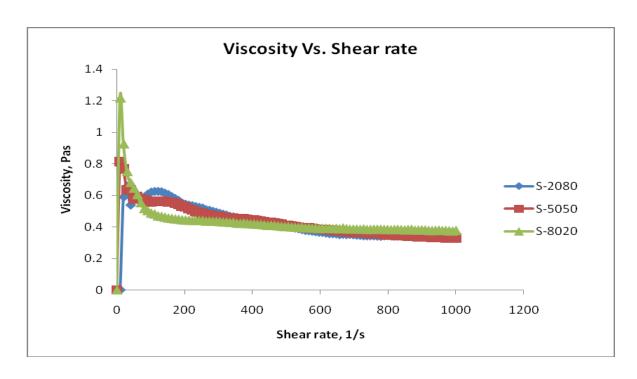


Figure 3: Viscosity Vs. Shear rate for Alk-47 emulsion at different surfactant ratio

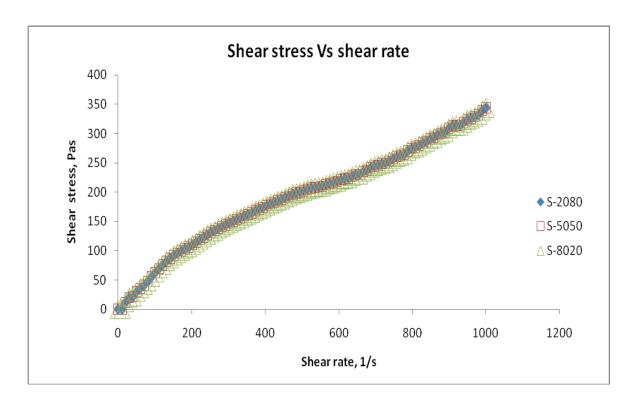


Figure 4: Shear stress Vs. Shear rate for alk-47 emulsion at different surfactant ratio

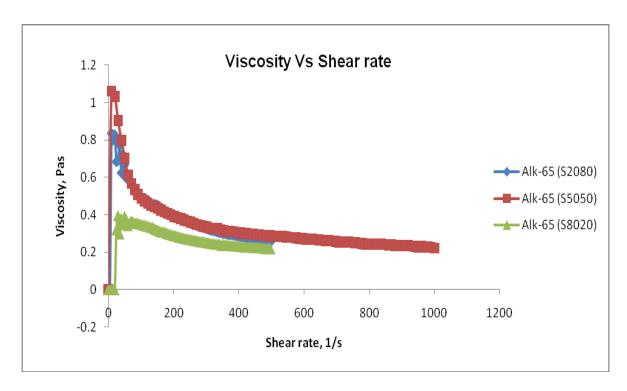


Figure 5: Viscosity Vs Shear rate of Alk-65 emulsion at different surfactant ratio

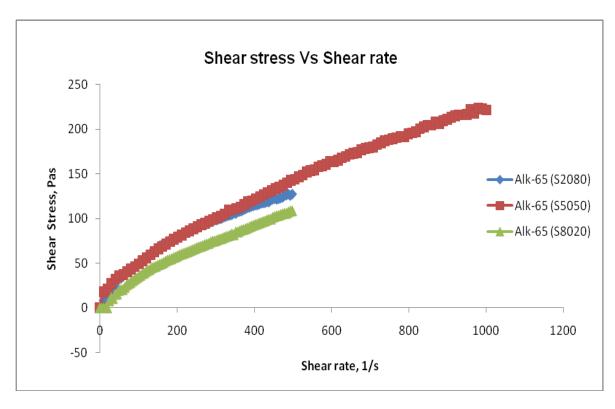


Figure 6: Shear stress Vs Shear rate of Alk-65 emulsion at different surfactant ratio

### Appendix H: Peel test result of pure Alk- 47resin

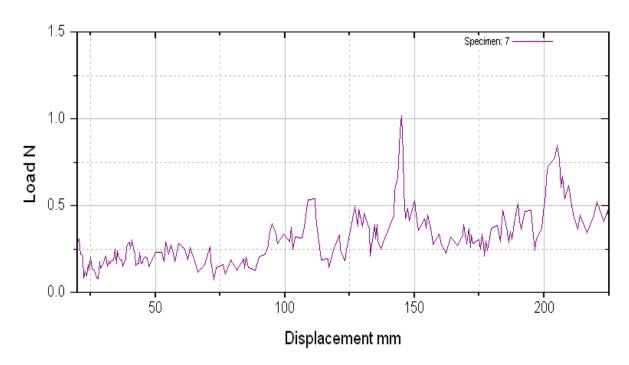
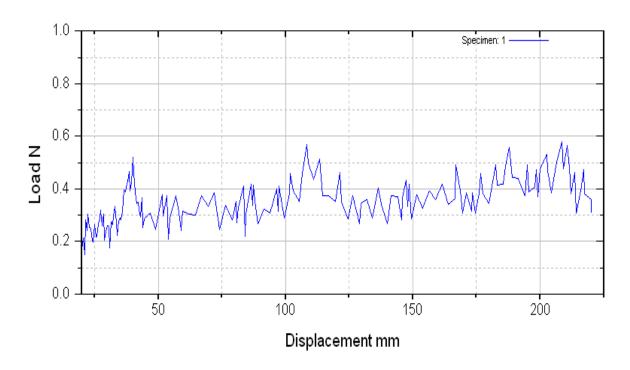
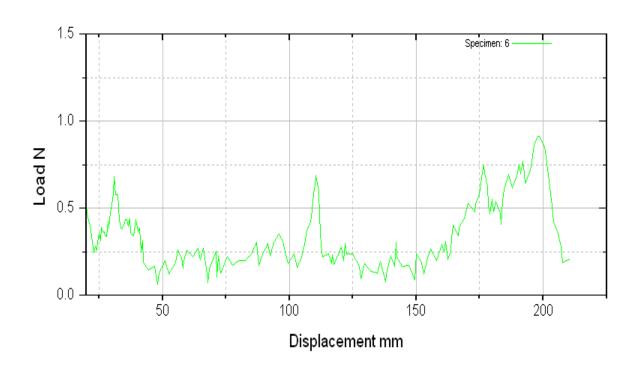


Figure 1(a):A Peel test curve for pure Alk-47



**Figure 1(b):** A Peel test curve for pure Alk-47



**Figure 1(c):** A Peel test curve for pure Alk-47

### Appendix I: Peel test result of pure Alk-45resin

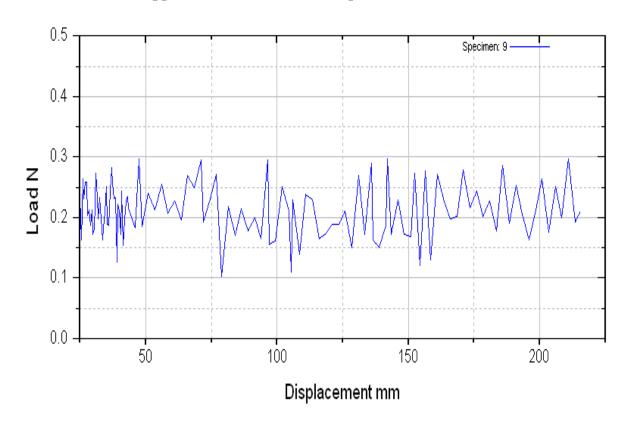


Figure 1(a): A Peel test curve for pure Alk-45

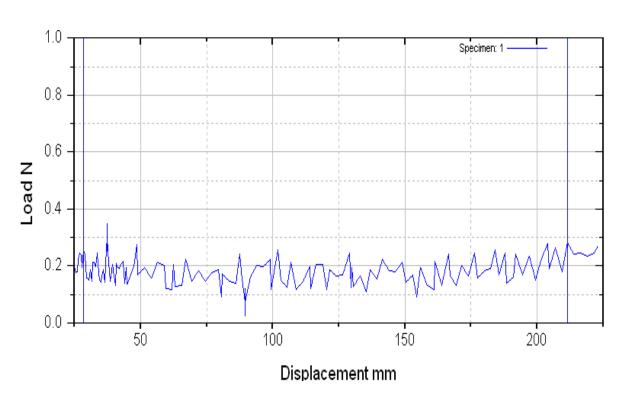


Figure 1(b): A Peel test curve for pure Alk-45

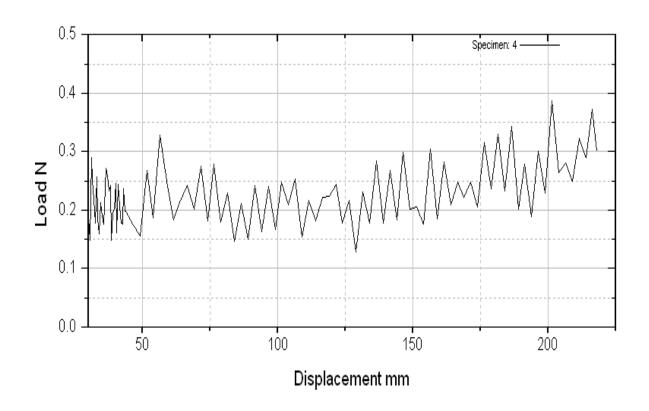


Figure 1(c): A Peel test curve for pure Alk-45

### Appendix J: Peel test result of pure Alk-65resin

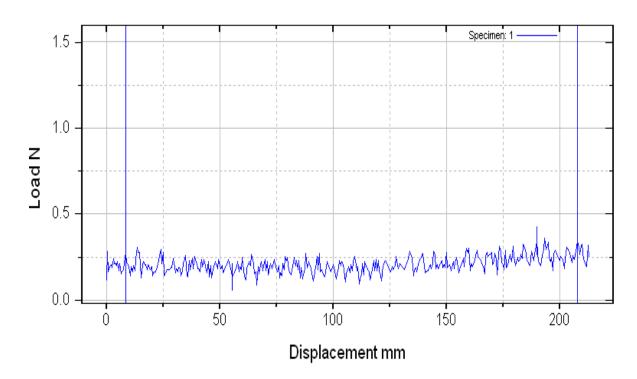
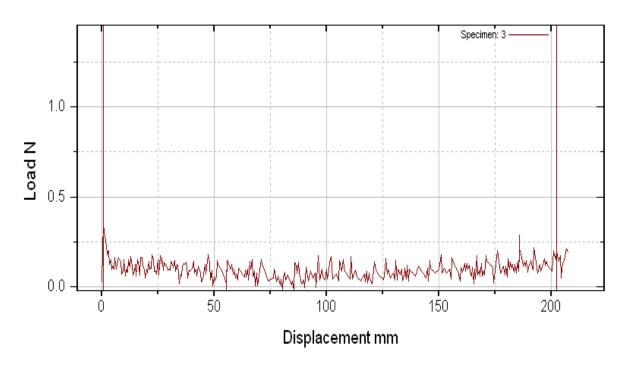


Figure 1(a): A Peel test curve for pure Alk-65



**Figure 1(b):** A Peel test curve for pure Alk-65

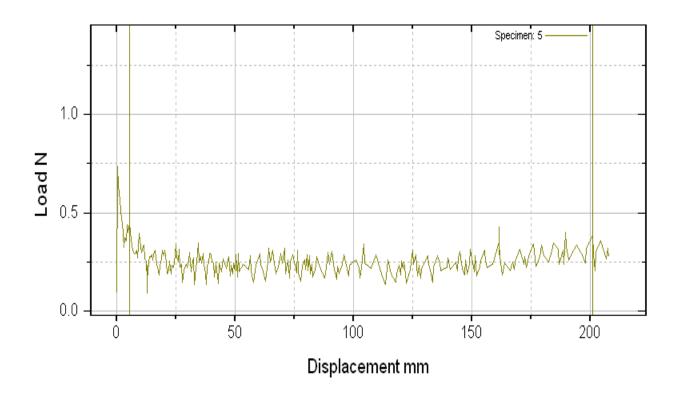


Figure 1(c): A Peel test curve for pure Alk-65

### Appendix K: A Peel test curve of sample Alk-47 PSA tapes

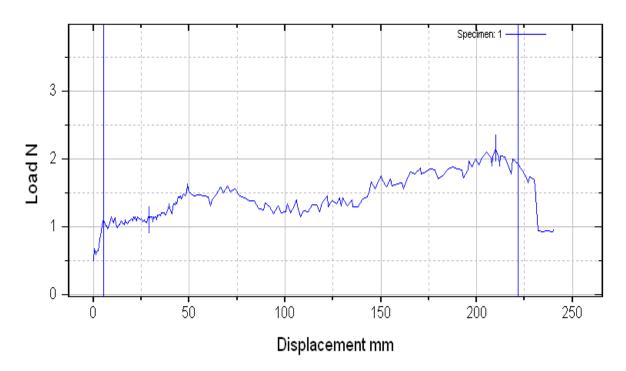


Figure 1(a): A Peel test curve of sample Alk-47 PSA tapes

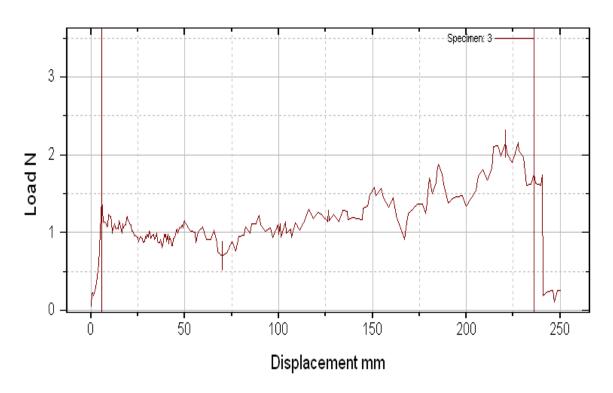


Figure 1(b): A Peel test curve of sample Alk-47 PSA tapes

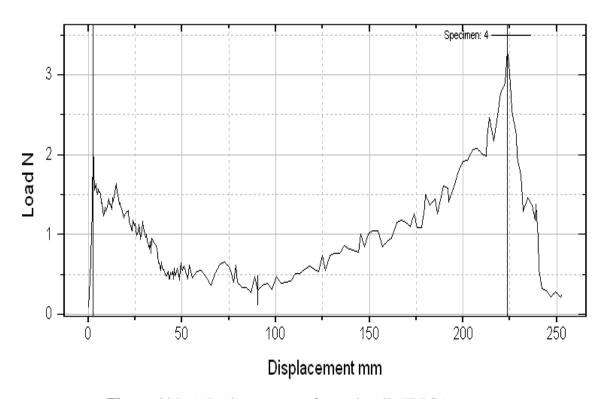


Figure 1(c): A Peel test curve of sample Alk-47 PSA tapes

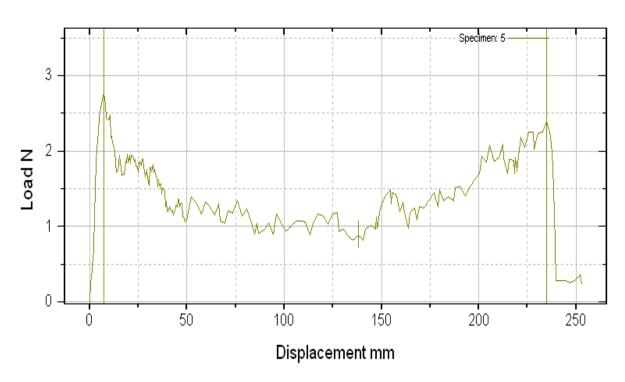


Figure 1(d): A Peel test curve of sample Alk-47 PSA tapes

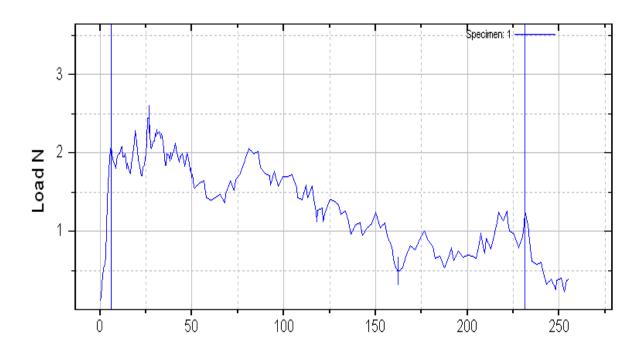


Figure 1(e): A Peel test curve of sample Alk-47 PSA tapes

### Appendix L: A Peel test curve of sample Alk-45 PSA tapes

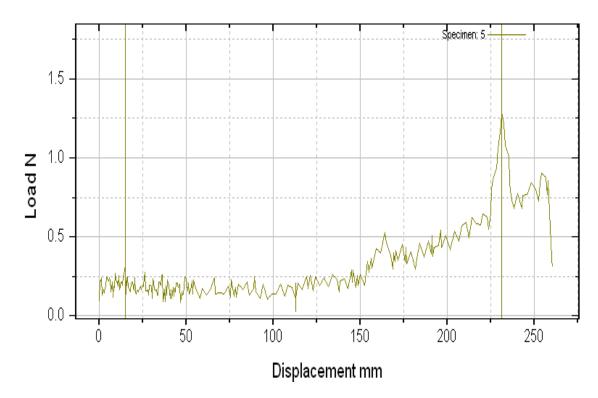


Figure 1(a): A Peel test curve of sample Alk-45 PSA tapes

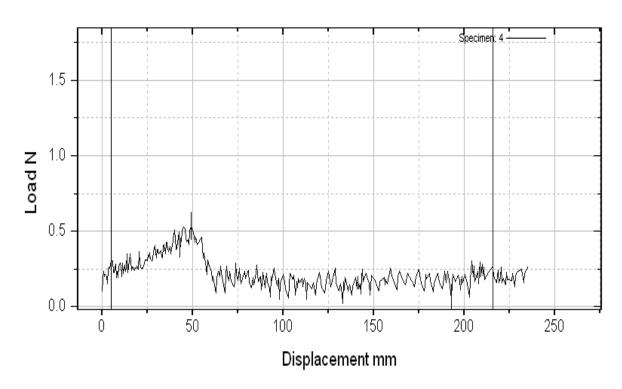


Figure 1(b): A Peel test curve of sample Alk-45 PSA tapes

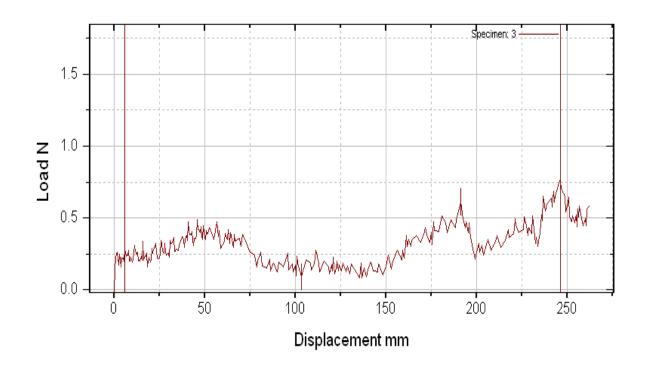


Figure 1(c): A Peel test curve of sample Alk-45 PSA tapes

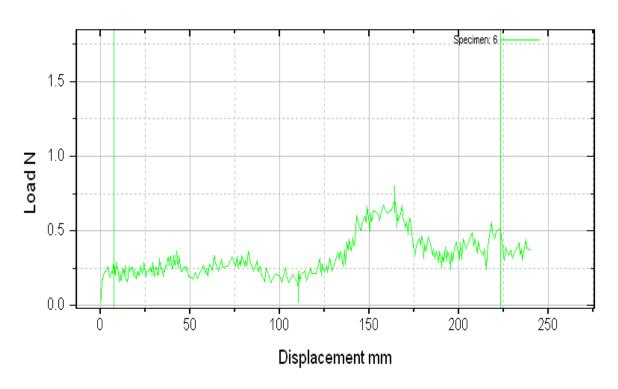


Figure 1(d): A Peel test curve of sample Alk-45 PSA tapes

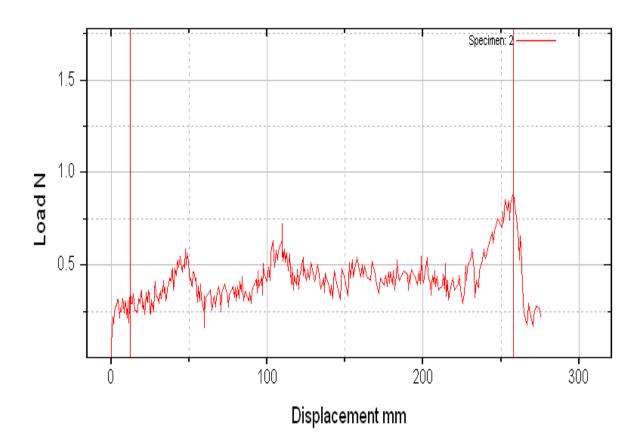


Figure 1(e): A Peel test curve of sample Alk-45 PSA tapes

### Appendix M: A Peel test curve of sample Alk-65 PSA tapes

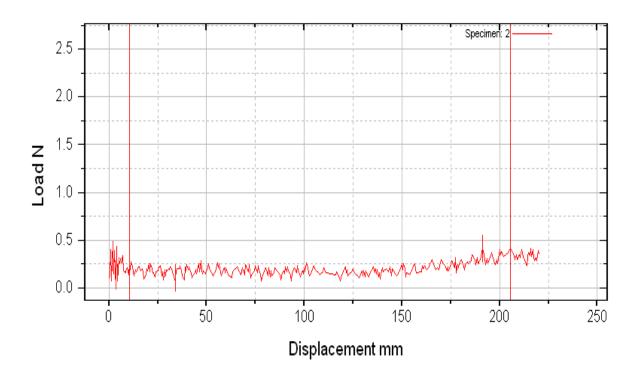


Figure 1(a): A Peel test curve of sample Alk-65 PSA tapes

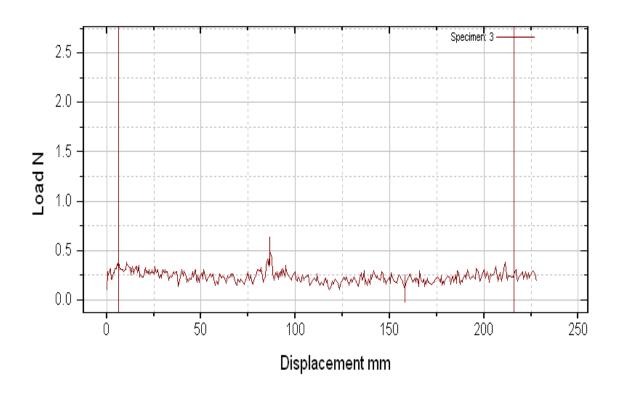


Figure 1(b): A Peel test curve of sample Alk-65 PSA tapes

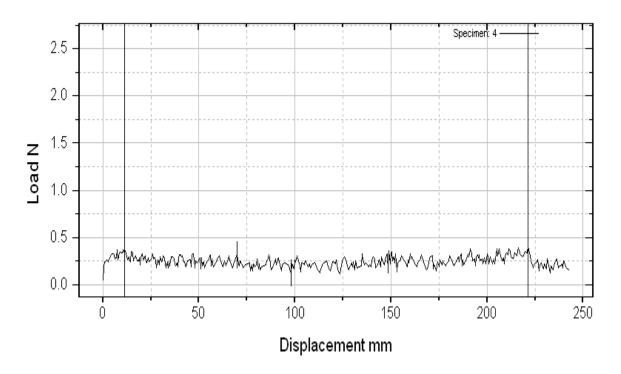


Figure 1(c): A Peel test curve of sample Alk-65 PSA tapes

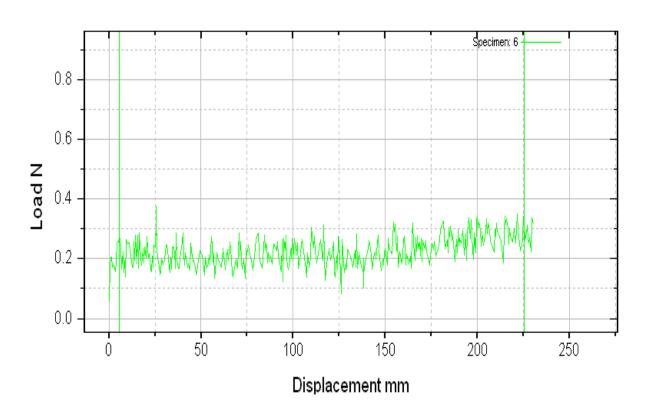


Figure 1(d): A Peel test curve of sample Alk-65 PSA tapes

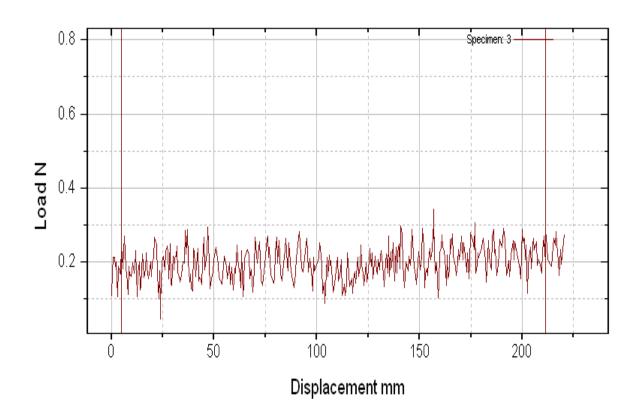


Figure 1(e): A Peel test curve of sample Alk-65 PSA tapes

### Appendix N: A Peel test curve of commercial PSA tapes

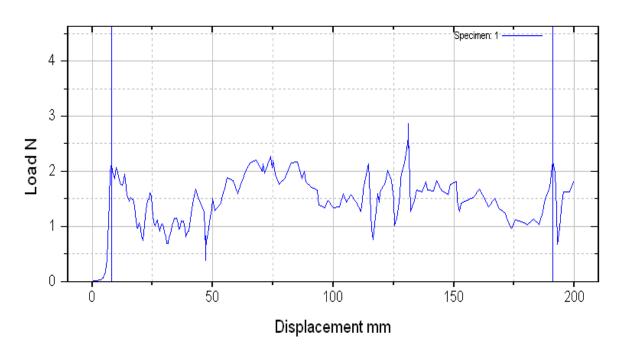


Figure 1(a): A Peel test curve of commercial PSA tapes Toyo

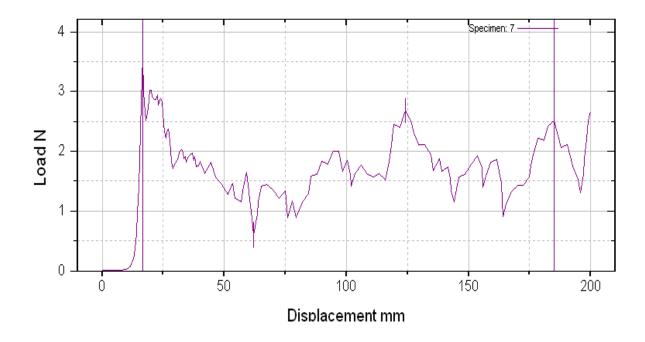


Figure 1(b): A Peel test curve of commercial PSA tapes Toyo

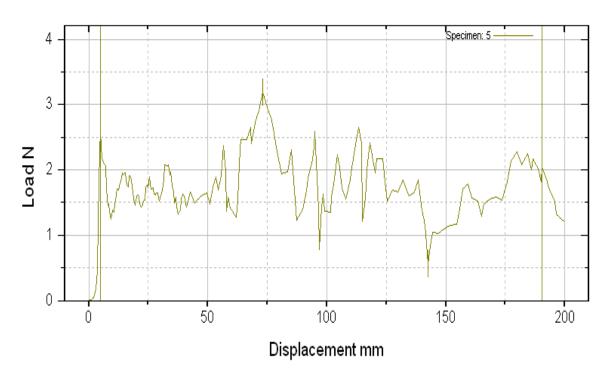


Figure 1(c): A Peel test curve of commercial PSA tapes Toyo

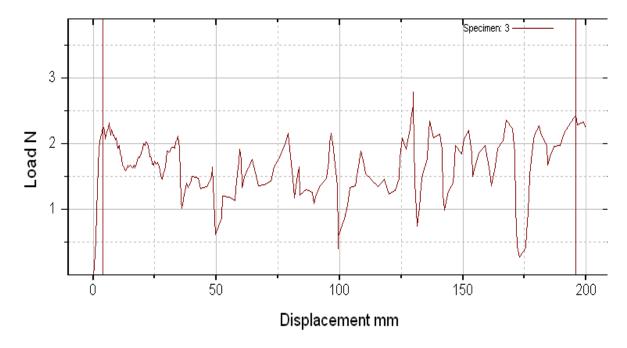


Figure 2(a): A Peel test curve of commercial PSA tapes Loytape

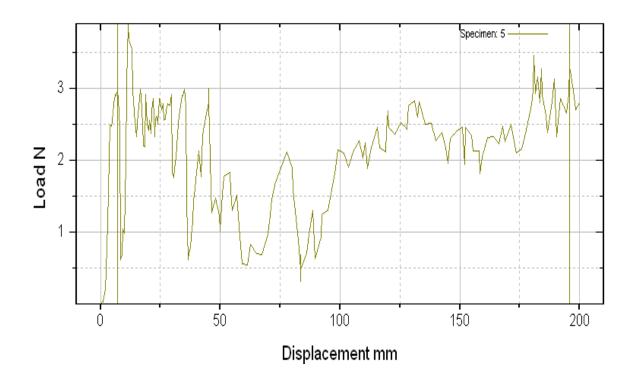


Figure 2(b): A Peel test curve of commercial PSA tapes Loytape

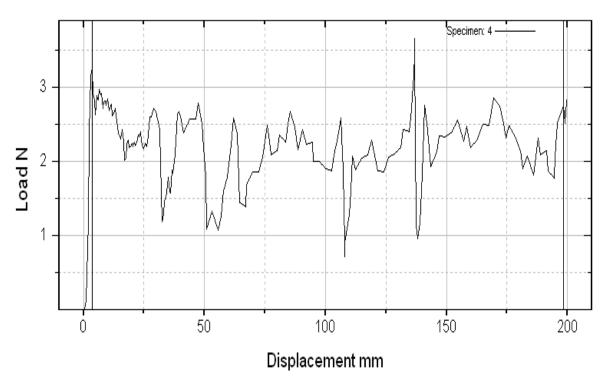


Figure 2(c): A Peel test curve of commercial PSA tapes Loytape

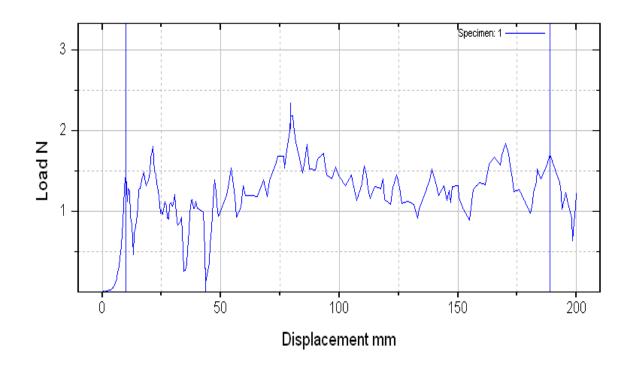


Figure 3(a): A Peel test curve of commercial PSA tapes ESI

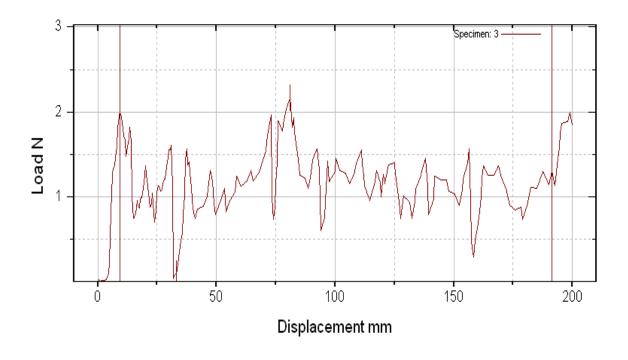


Figure 3(b): A Peel test curve of commercial PSA tapes ESI

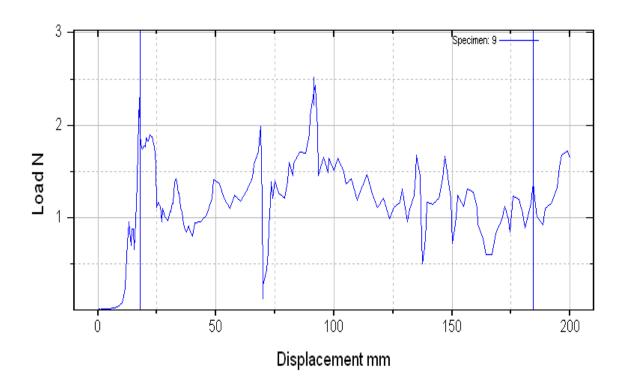


Figure 3(c): A Peel test curve of commercial PSA tapes ESI