Supplementary information

Using a bioderived CO_2-responsive polymer as an easily removed pressure sensitive adhesive

Daniel Barker,[a] Shannon Whitty,[a] Tobias Robert,[c] Parisa Bayat,[d] Marc A. Dubé,[d] Michael F. Cunningham,[b] Guojun Liu,*[a] and Philip G. Jessop*[a]

[a]Department of Chemistry, Queen's University, Kingston, ON K7L 3N6, Canada [b]Department of Chemical Engineering, Queen's University, Kingston, ON K7L 3N6, Canada

[c]Fraunhofer Institute for Wood Research – Wilhelm-Klauditz-Institut WKI, Bienroder Weg 54E, 38108 Braunschweig, Germany.

[d]Department of Chemical and Biological Engineering, University of Ottawa, Ottawa, Ontario K1N 6N5, Canada

*Correspondence: gliu@chem.queensu.ca, jessop@queensu.ca

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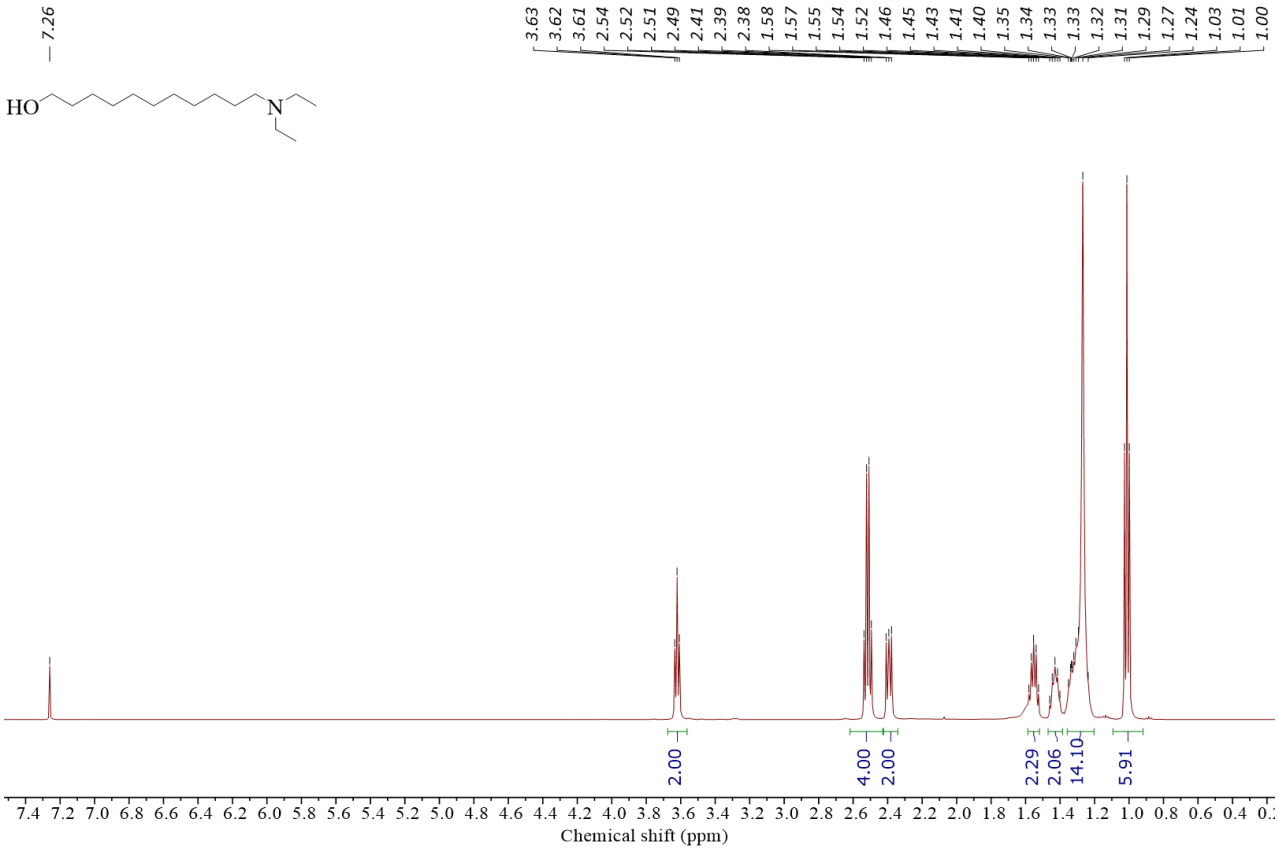
7.26
HO
N
3.63
3.62
3.61
2.54
2.52
2.51
2.49
2.41
2.39
2.38
1.58
1.57
1.55
1.54
1.52
1.46
1.45
1.43
1.41
1.40
1.35
1.34
1.33
1.33
1.32
1.31
1.29
1.27
1.24
1.03
1.01
1.00
2.00
4.00
2.00
2.29
2.06
14.10
5.91
7.4 7.2 7.0 6.8 6.6 6.4 6.2 6.0 5.8 5.6 5.4 5.2 5.0 4.8 4.6 4.4 4.2 4.0 3.8 3.6 3.4 3.2 3.0 2.8 2.6 2.4 2.2 2.0 1.8 1.6 1.4 1.2 1.0 0.8 0.6 0.4
Chemical shift (ppm)

Figure S1. ^{1}H NMR spectrum of DEAUol (499.86 MHz, $CDCl_3$).

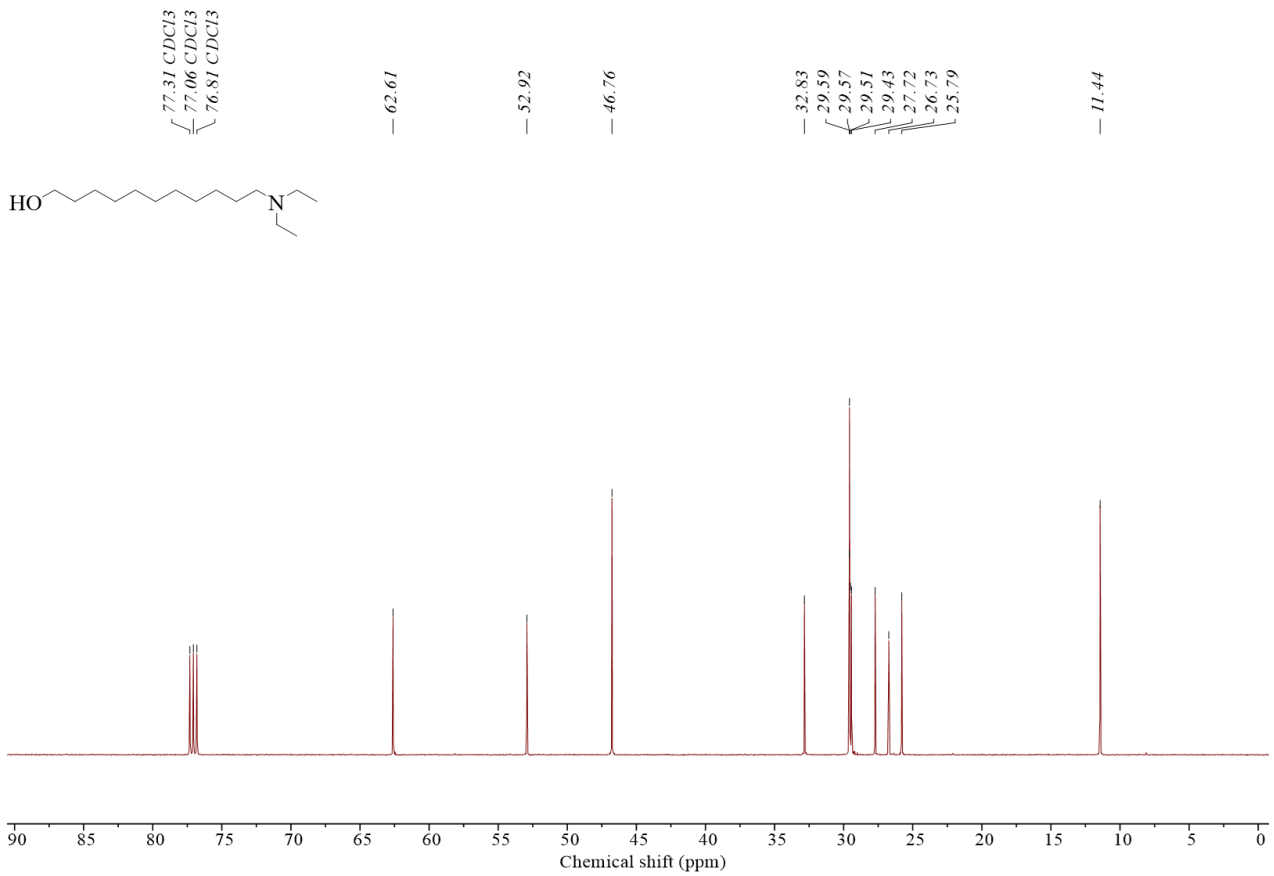

Figure S2. ^{13}C NMR spectrum of DEAUol (125.81 MHz, $CDCl_3$).

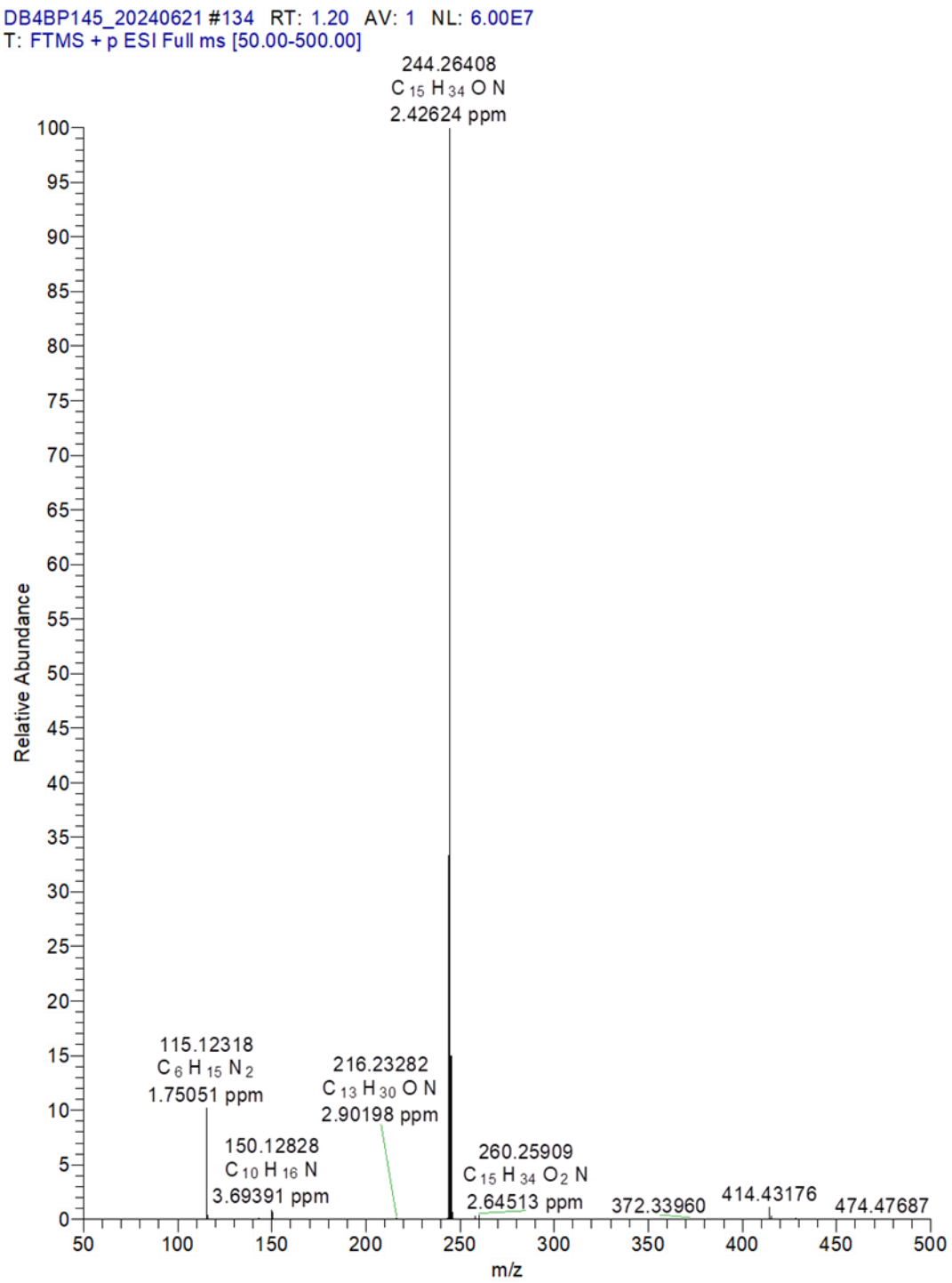

Figure S3. Mass spectrum of DEAUol. The calculated (M+H)/z for DEAUol was 244.26459 g mol^{-1}. The observed (M+H)/z for DEAEMS was 244.26408 g mol^{-1}.

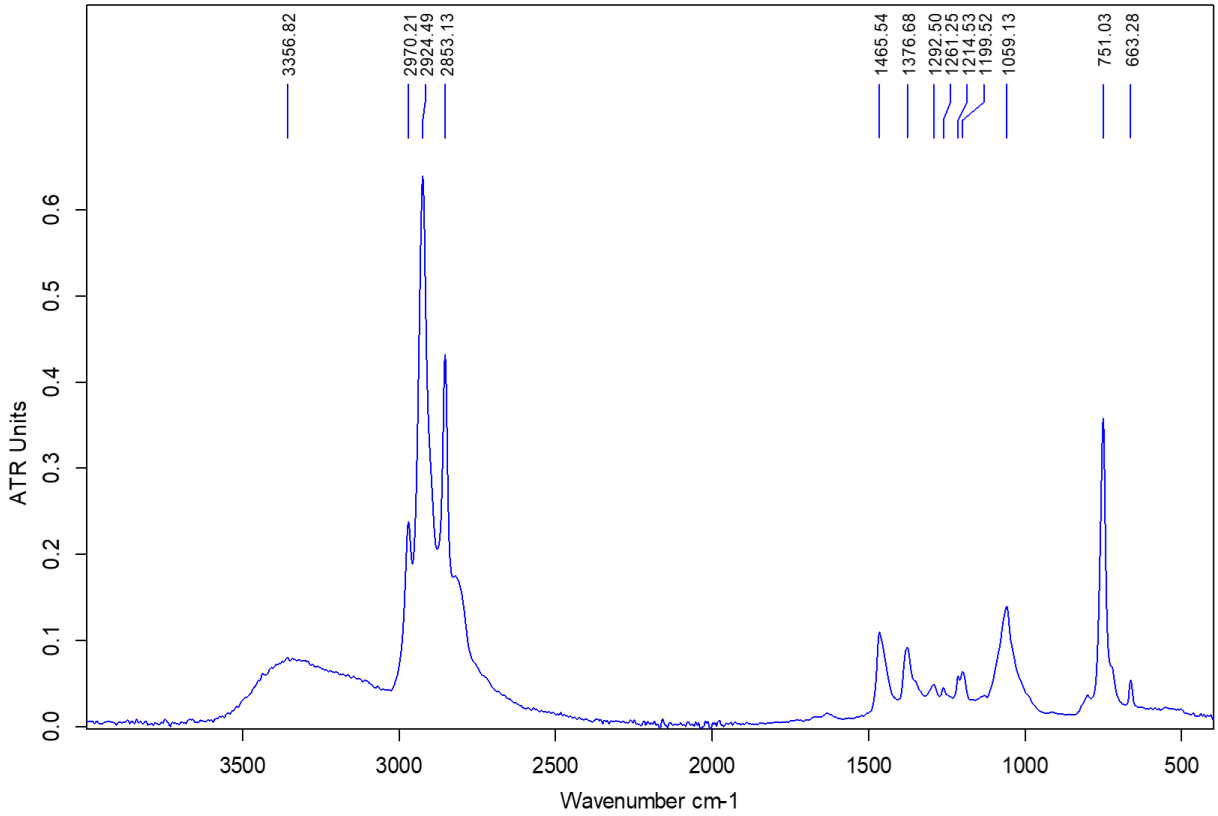
3356.82
2970.21
2924.49
2853.13
1465.54
1376.68
1292.50
1261.25
1214.53
1199.52
1059.13
751.03
663.28
ATR Units
0.0
0.1
0.2
0.3
0.4
0.5
0.6
3500
3000
2500
2000
1500
1000
500
Wavenumber cm-1

Figure S4. ATR-FTIR spectrum of DEAUol.

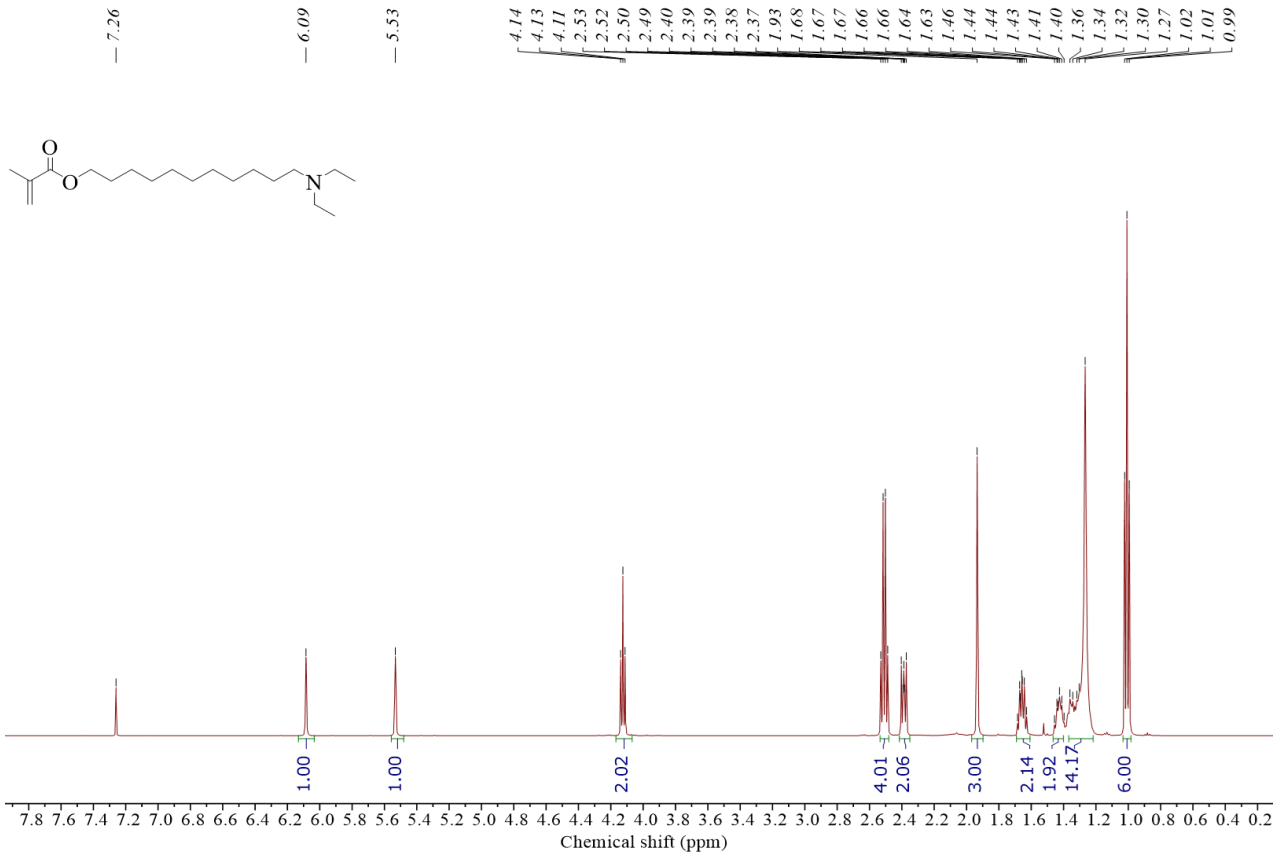

Figure S5. ^{1}H NMR spectrum of DEAUMA (499.86 MHz, $CDCl_3$).

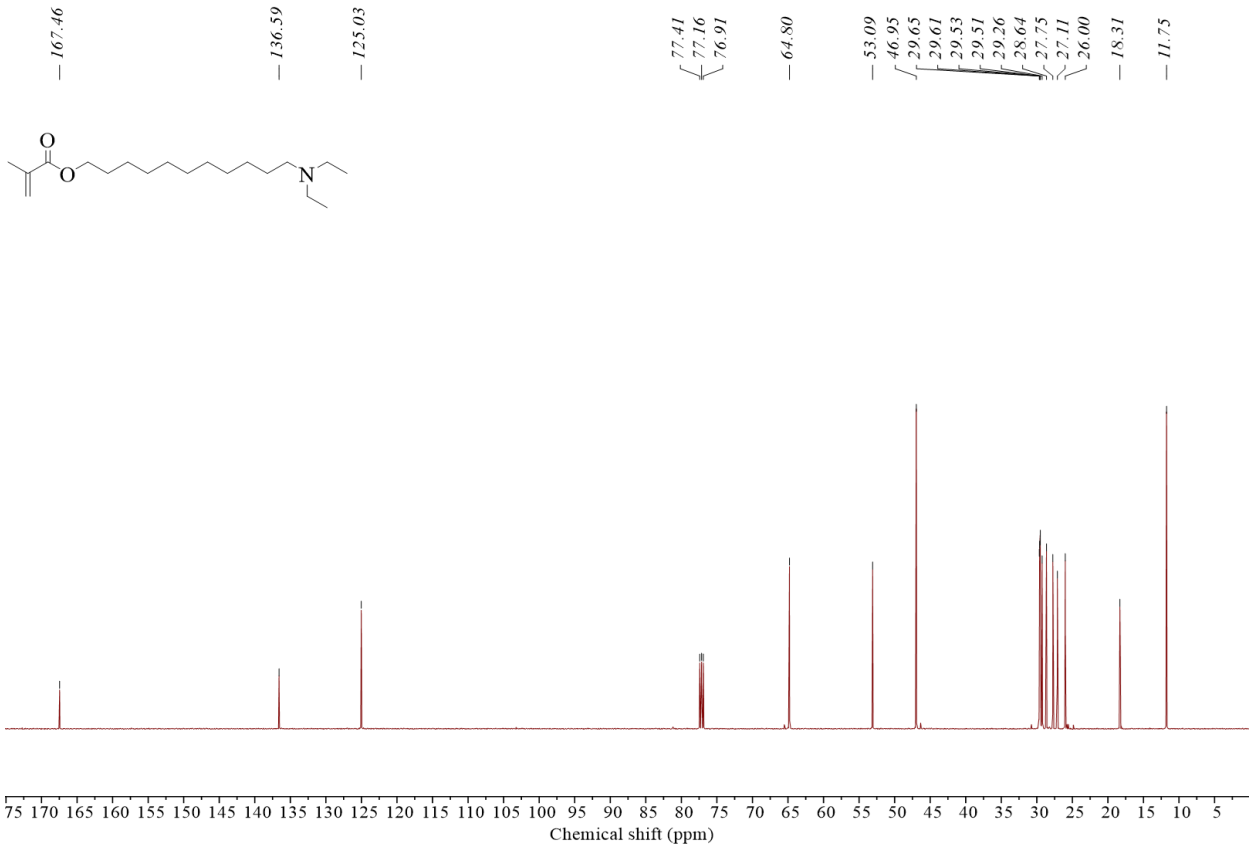

Figure S6. ^{13}C NMR spectrum of DEAUMA (125.81 MHz, $CDCl_3$).

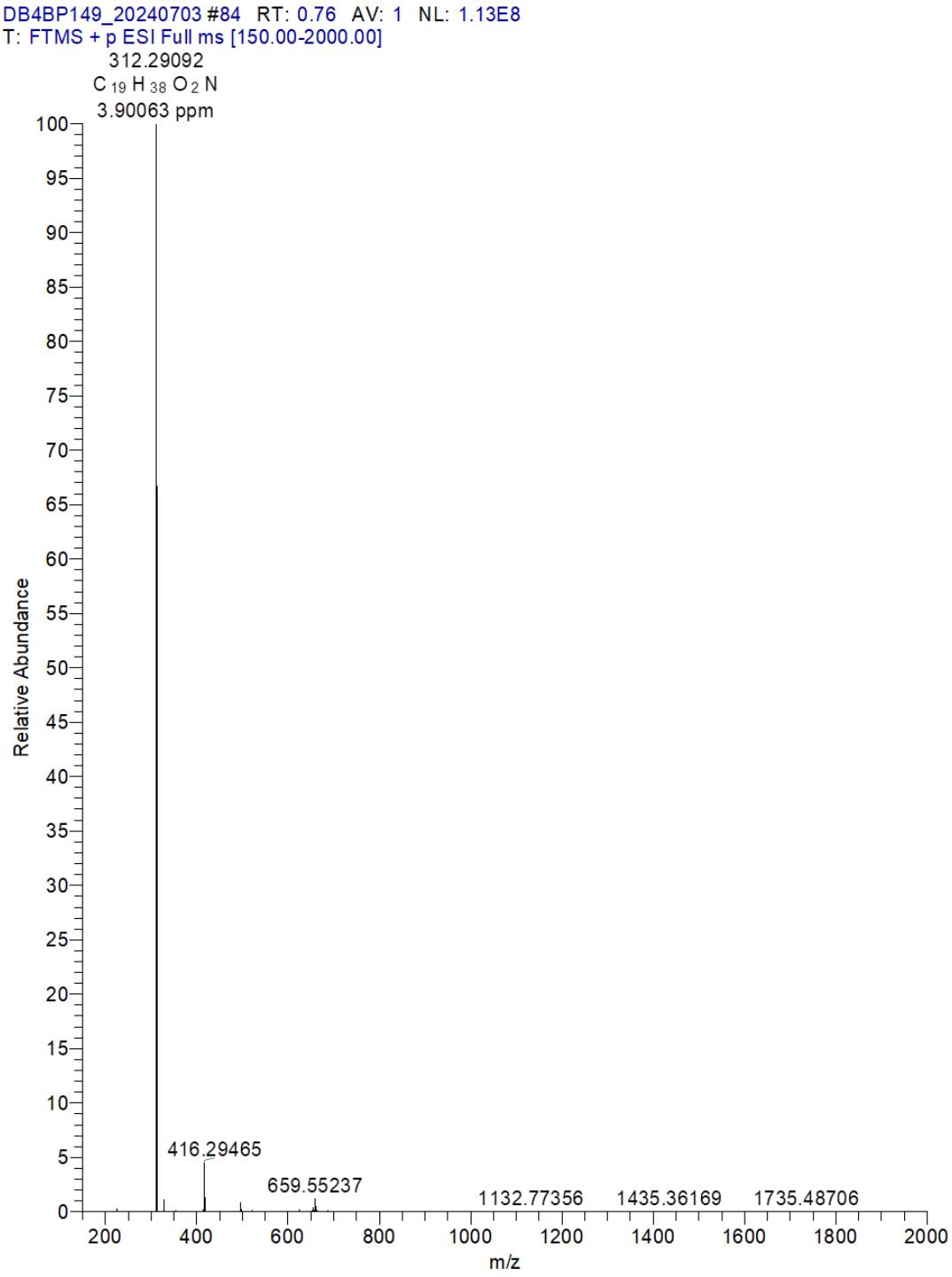

Figure S7. Mass spectrum of DEAUMA. The calculated (M+H)/z for DEAUMA was 312.29080 g mol^{-1}. The observed (M+H)/z for DEAEMS was 312.29092 g mol^{-1}.

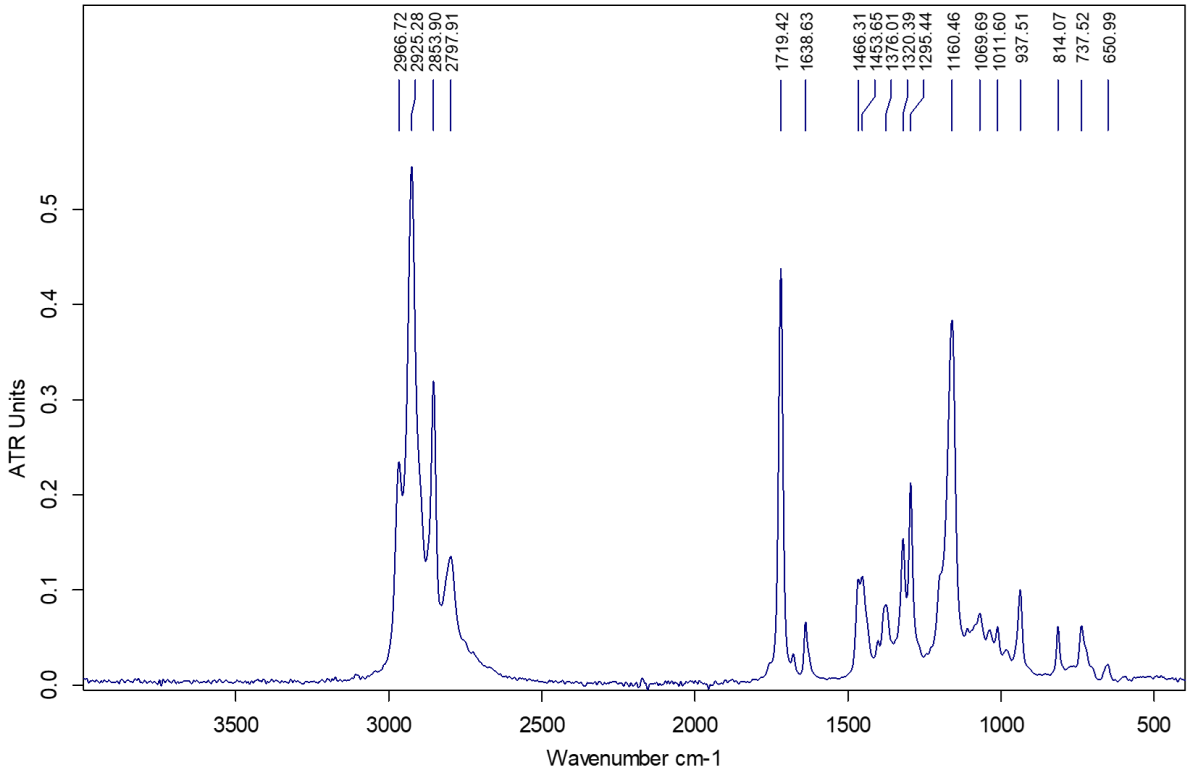

Figure S8. ATR-FTIR spectrum of DEAUMA.

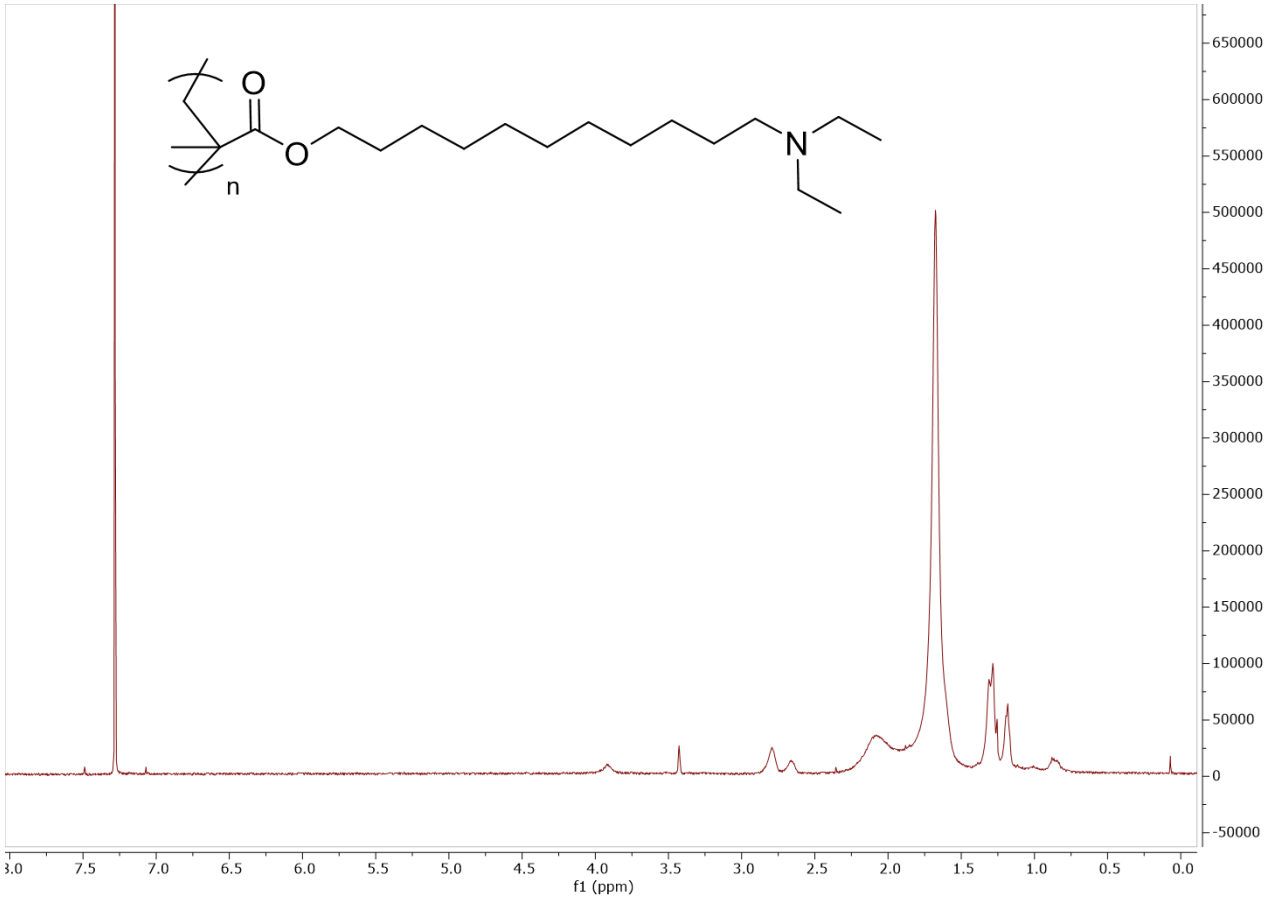

Figure S9. ^{1}H NMR spectrum of PDEAUMA (499.86 MHz, $CDCl_3$).

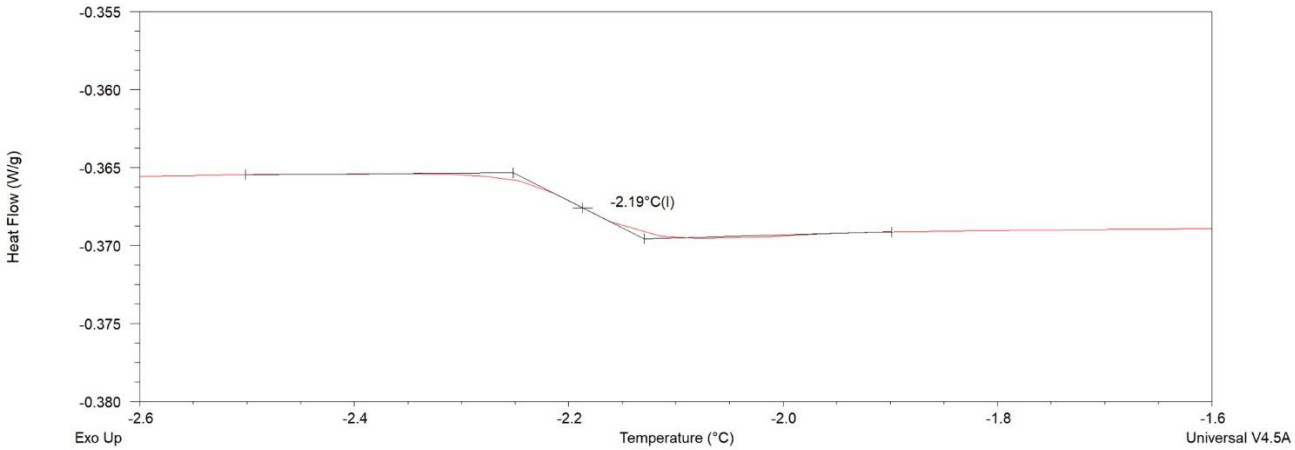

Figure S10. Thermogram of PDEAUMA obtained by DSC. The T_g of PDEAEMS was determined to be -2.2 °C.

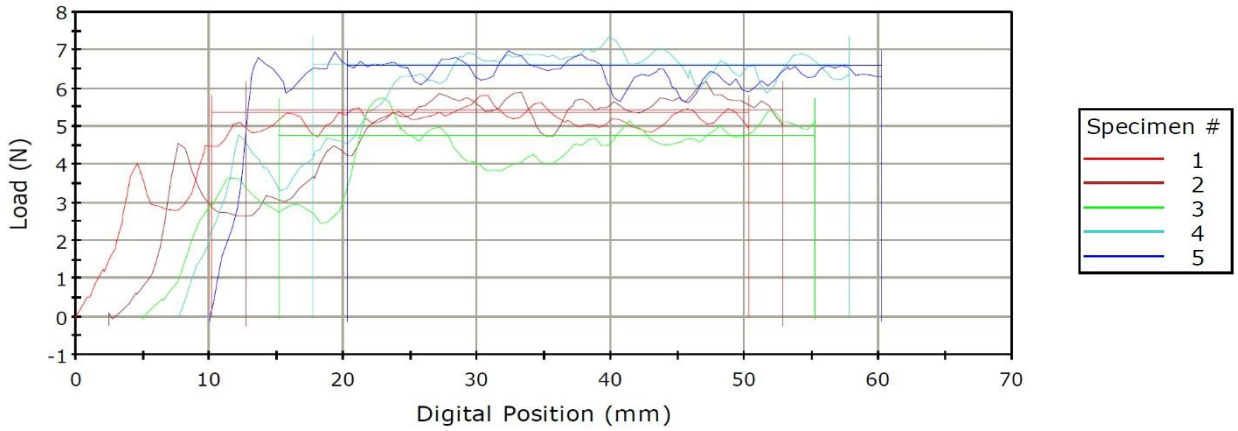

Figure S11. Load vs. displacement curves of the 180˚ peel strength of PDEAUMA.

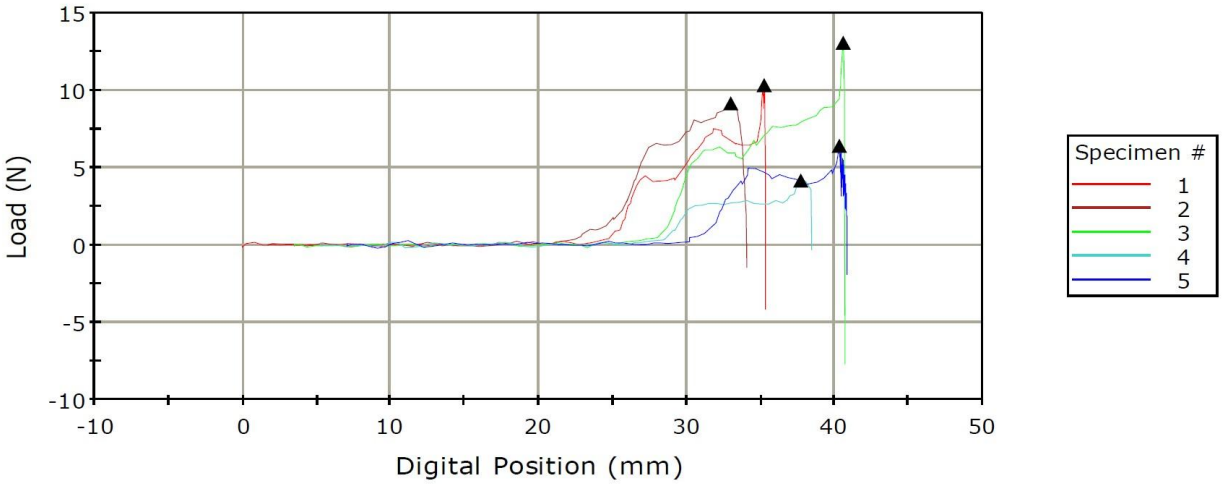

Figure S12. Load vs. displacement curves of the tack of PDEAUMA.

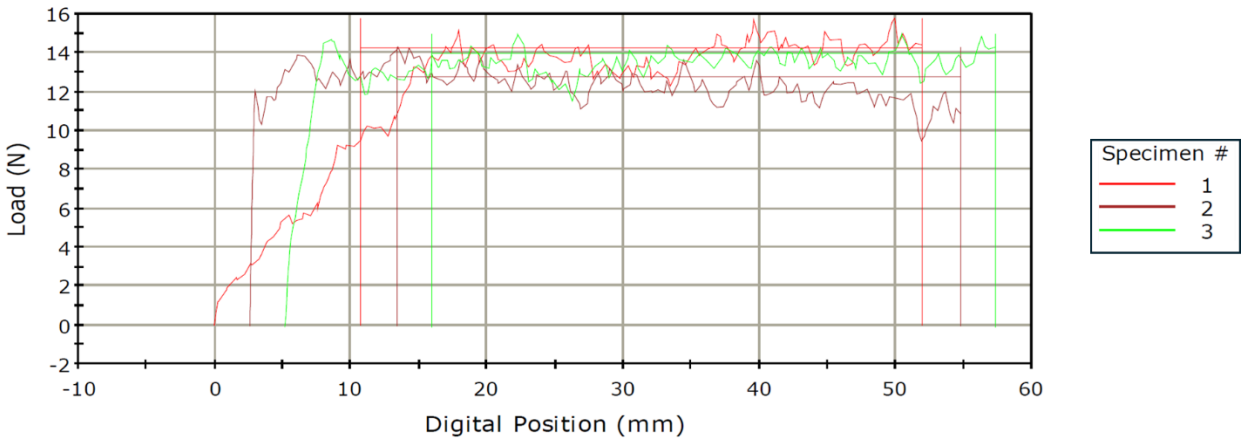

Figure S13. Load vs. displacement curves of the 180˚ peel strength of Fisherbrand™ labeling tape.

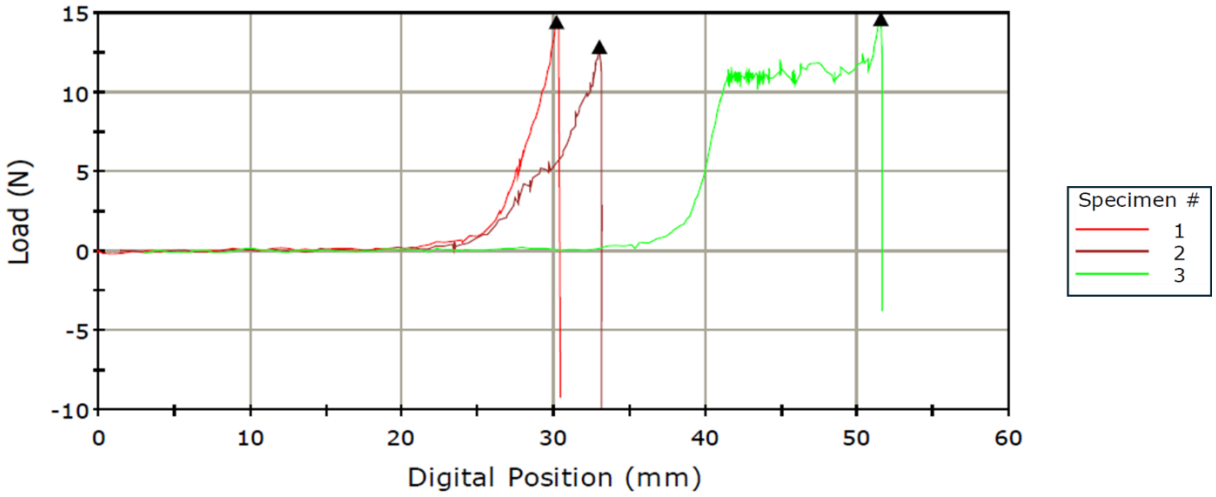

Figure S14. Load vs. displacement curves of the tack of Fisherbrand™ labeling tape.

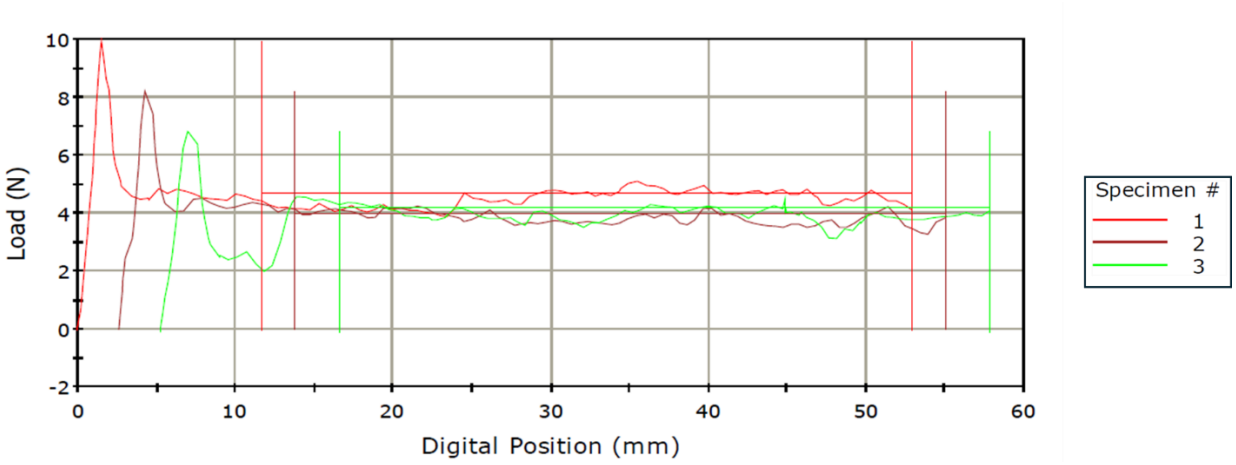

Figure S15. Load vs. displacement curves of the 180˚ peel strength of Scotch® Magic™ tape.

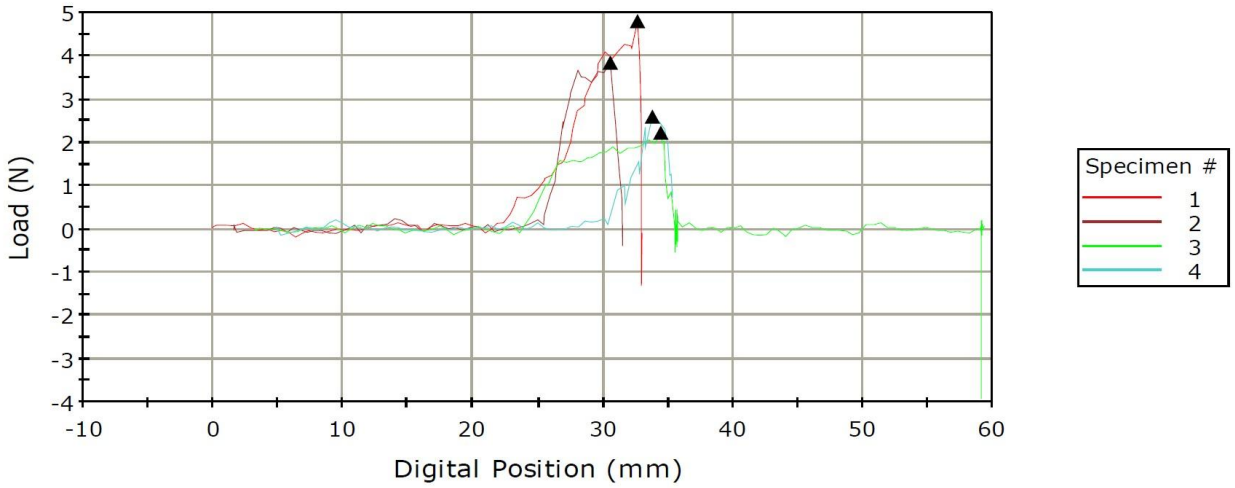

Figure S16. Load vs. displacement curves of the tack of Scotch® Magic™ tape.