

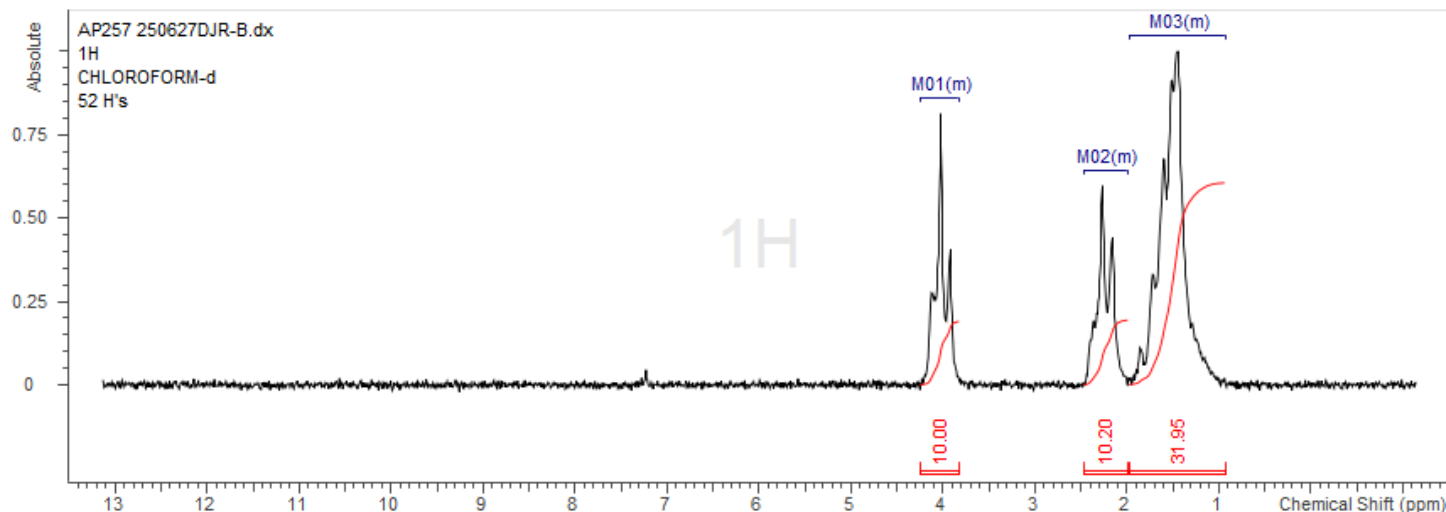
No. AP257

Certificate of Analysis



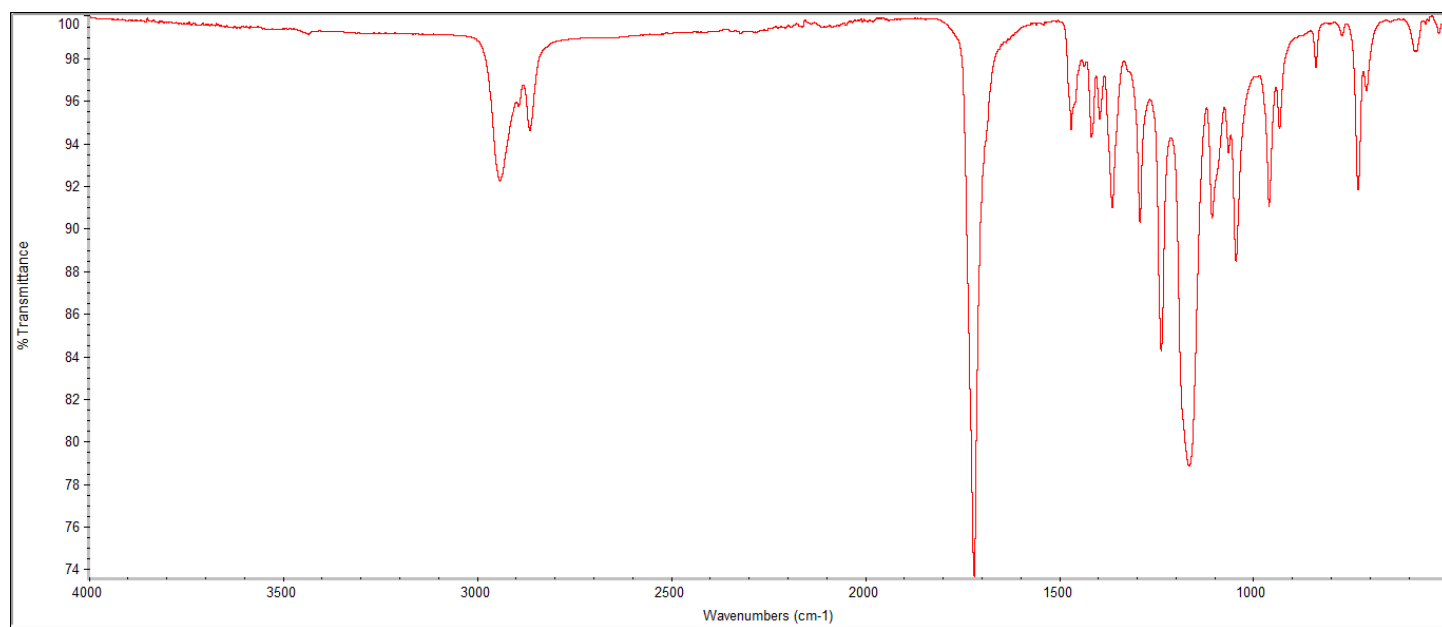
Product Name: Poly(caprolactone) acid endcap (Mn: 75,000-85,000 Da) (Lot#: 250627DJR-B)

H-NMR



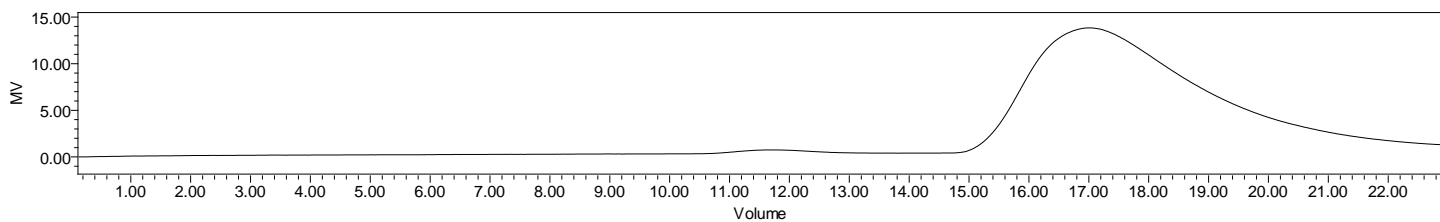
H-NMR Spectrum of copolymers in CDCl₃ (NMReady-60e, Nanalysis 60 MHz) NMR of PCL copolymer

FTIR



FTIR Analysis: Collected from IS5 ID7-ATR spectrometer (Thermo Scientific) and analyzed in transmission mode.

GPC-ES



Polymer	M _n (from GPC)	M _w (from GPC)	PDI
PCL	75,426	95,029	1.26

GPC-ES Analysis Method: Waters Breeze 2 system with 1 ml/min THF flow across three GPC columns. Detection via refractive index, calibrated against polystyrene standards.

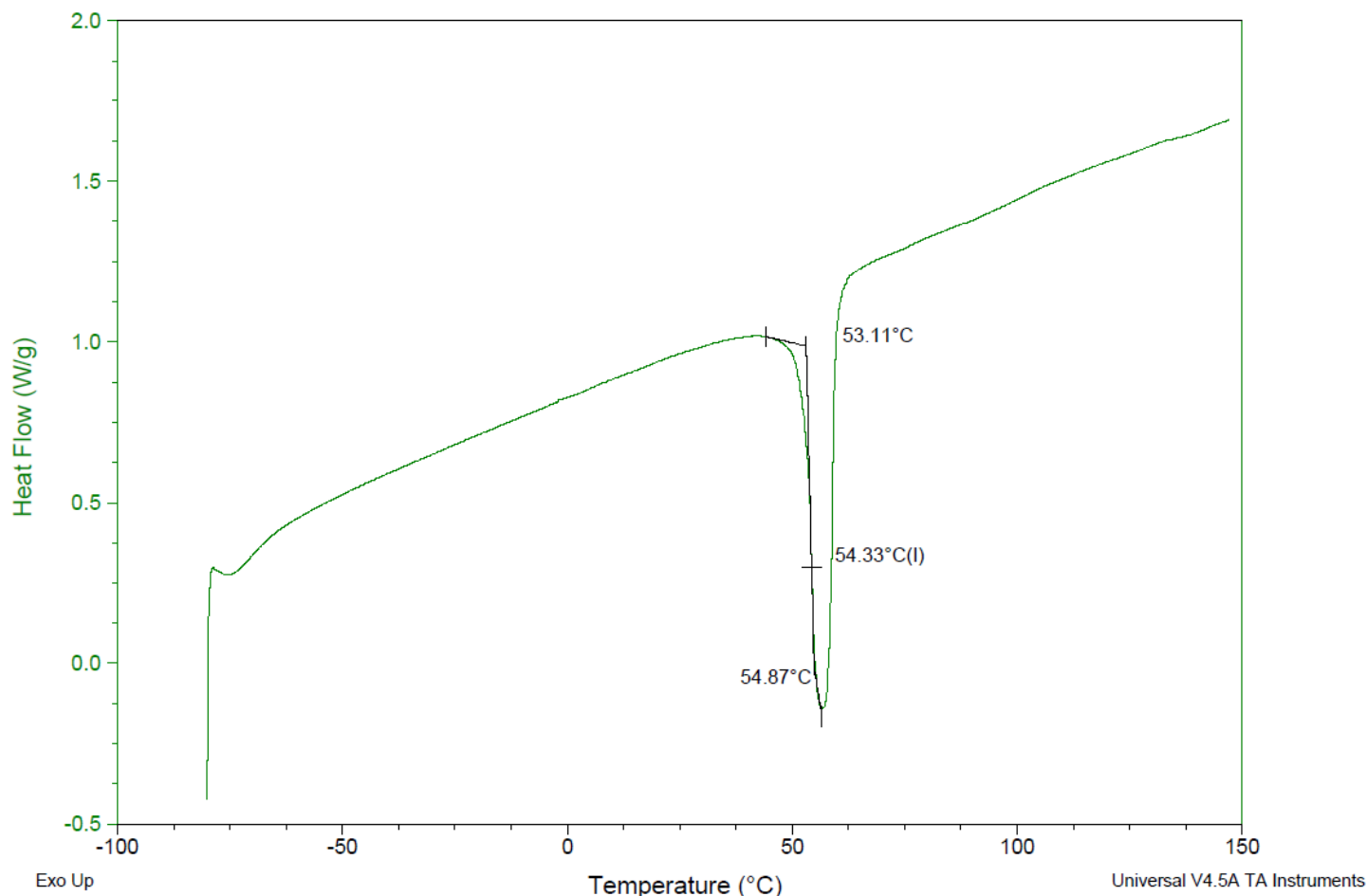
DSC

Sample: AP257 250627DJR-B
Size: 2.8000 mg
Method: Ramp

DSC

File: C:\...\COA\AP257 250627DJR-B DSC.001

Run Date: 10-Jul-2025 12:57
Instrument: DSC Q2000 V24.11 Build 124

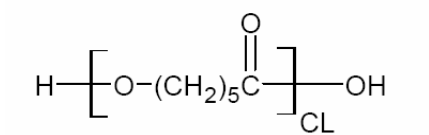


DSC Testing: 1-5 mg sample tested in crimped aluminum pan on a TA Instruments Model Q2000 with procedure equilibraion 100 °C, isothermal 5 minutes, equilibrate -80 °C, data on, ramp 10 °C/min to 150 °C. T_g = 54.33 °C

IV

Inherent Viscosity: 0.368 ± 0.043 dL/g (calculated from kinematic viscosity at 2% w/v Acetone on Rheosense microVISC, n=3) at 25°C.

Structure of polymer



Approved By:
Amie Tyler
Quality Manager