

## Product Profile

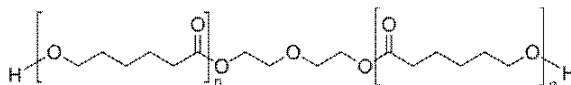
### Identification

**Product Name:** Poly(ε-Caprolactone)

**Product Lot Number:** P41206-CL

**CAS #:** 24980-41-4

**Chemical Architecture:**



**Composition:**

<b>Mn (g/mole)</b>	<b>2,000</b>
<b>Mw (g/mole)</b>	<b>2,300</b>
<b>Mw/Mn</b>	<b>1.13</b>
<b>dn/dc (mL/g) in THF at 30 °C</b>	<b>0.030</b>

### Method of Synthesis

The polymer is synthesized by ring opening polymerization process.

**Solubility in different solvents:**

THF	√	DMF	√
Alcohol	X	CHCl <sub>3</sub>	√
Toluene	√	Water	X

### Validation of Architecture

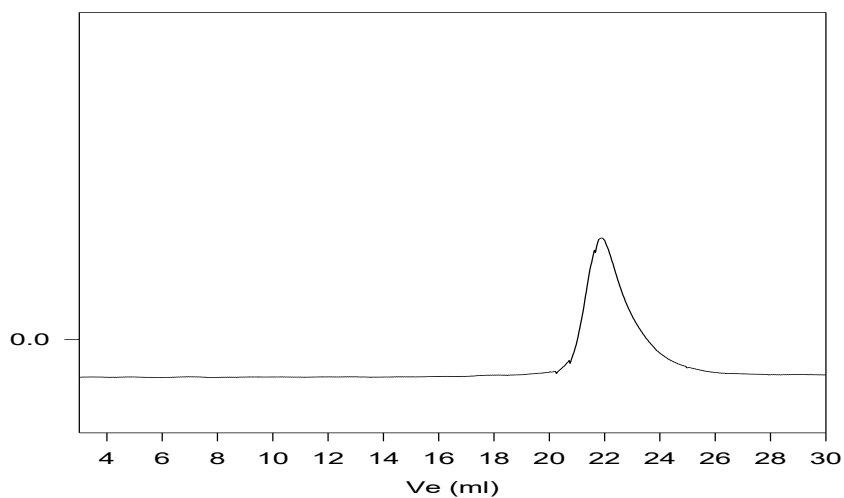
#### A. Gel Permeation Chromatography (GPC), SEC Profile:

Molecular weights were determined by Agilent Technologie 1260 Infinity II GPC/SEC System equipped with Triple detector (RI, Viscometer, RALS 90° and LS 15°) and three columns (PLgel, 7.5x300 mm, 5μm-10μm, 10<sup>5</sup>-10<sup>6</sup>Å). THF (stabilized BHT) with 1%(v/v%) TEA was the eluent. The flow rate was 1.0 ml/min.



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P41206-CL

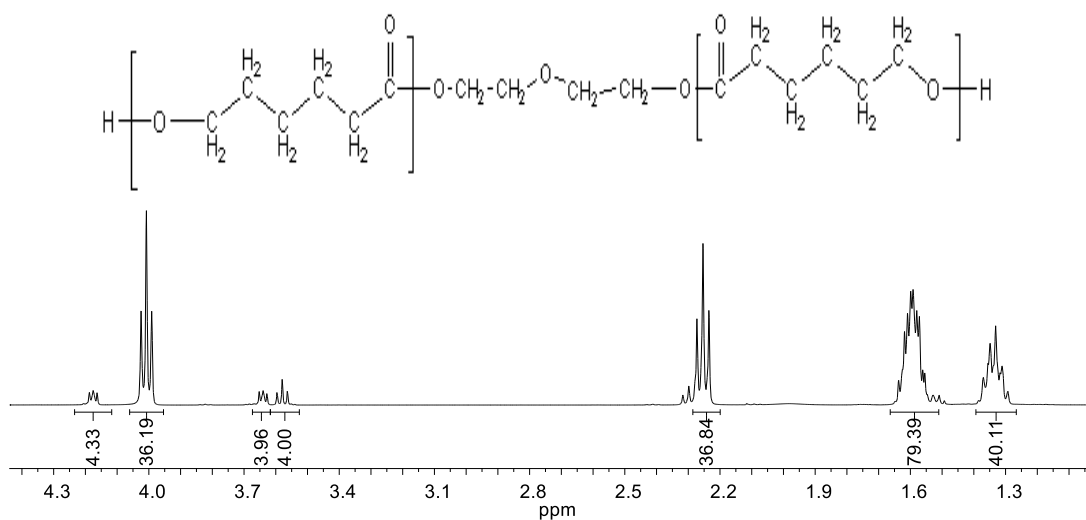


Size exclusion chromatography result:

**B. NMR (<sup>1</sup>H NMR) of CL**

CL sample was dissolved in CDCl<sub>3</sub>. <sup>1</sup>H NMR spectra was determined using a 500 MHz. Bruker Avance III spectrometer.

P41206-CL MN 2000



124 avenue Avro, Dorval (Montreal)  
Quebec H9P 2X8 Canada  
Phone : +1-514-421-5517 or +1-514-421-5506  
[support@polymersource.com](mailto:support@polymersource.com)  
[www.polymersource.ca](http://www.polymersource.ca)

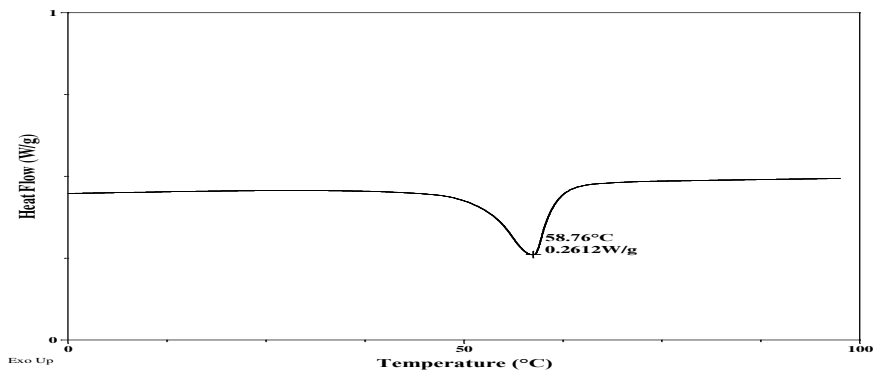


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**Thermal analysis result at a glance:**

T <sub>m</sub> (°C)	T <sub>c</sub> (°C)	T <sub>g</sub> (°C)
59	12	Not distinct

**Melting curve for the CL sample:**



**Crystallization curve for the CL sample:**

