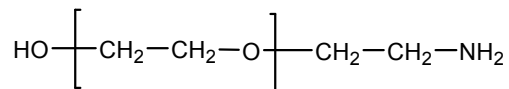


Sample Name:

**α -amino ω -hydroxyl Terminated
Poly(ethylene glycol)**

Sample: P4215-EGNH2OH

Structure:



Composition:

Mn x 10 ³	PDI	NH2 functionality
4.8	1.15	> 99%

Synthesis Procedure:

α -Amino ω -hydroxyl terminated poly(ethylene glycol) was synthesized by proprietary method.

¹Please call us if you would like to know more.

Characterization:

The molecular weight and polydispersity index of this polymer were determined by size exclusion chromatography (SEC) using a Varian liquid chromatograph equipped with a UV and refractive index detector.

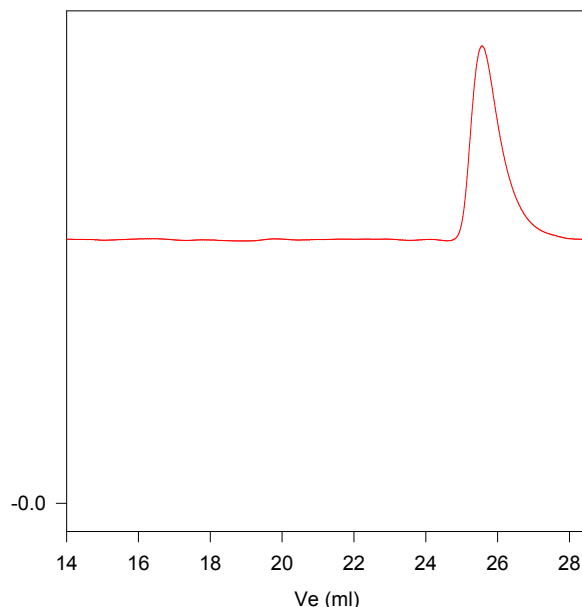
Functionality: Functionality of the polymer was determined by H NMR analysis or FT-IR spectroscopy or by titration.

Solubility:

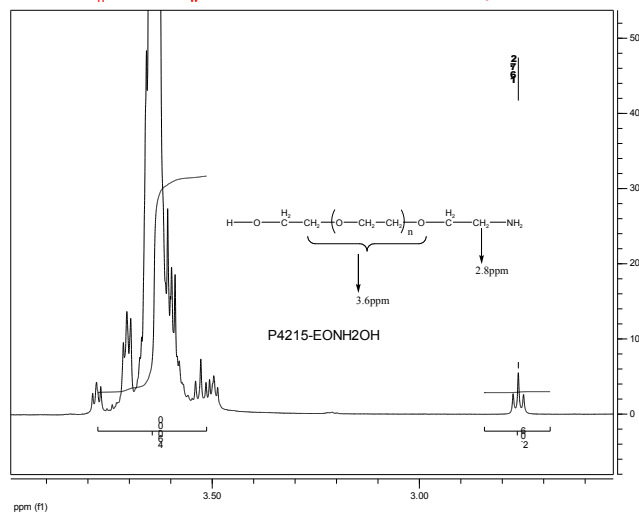
Polymer is soluble in water, methanol and ethanol, THF, CHCl₃. It is precipitated out from cold ethanol, isopropanol, hexane and ether.

SEC of Sample:

P4215-EGNH2OH



$M_n=4800$, $M_w=5500$, $PI=1.15$ NH2 functionality> 99%



References:

S. K. Varshney, J.X. Zhang, US patent 09/895,323, 2001. Heterofunctional Polyethylene glycol and Poly ethylene oxide, process for their Manufacture

Thermal analysis of the sample# P4215-EONH2OH

Thermal analysis of the samples was carried out on a TA Q100 differential scanning calorimeter at a heating rate of 10°C/min. The midpoint of the slope change of the heat flow plot of the second heating scan was considered as the glass transition temperature (T_g).

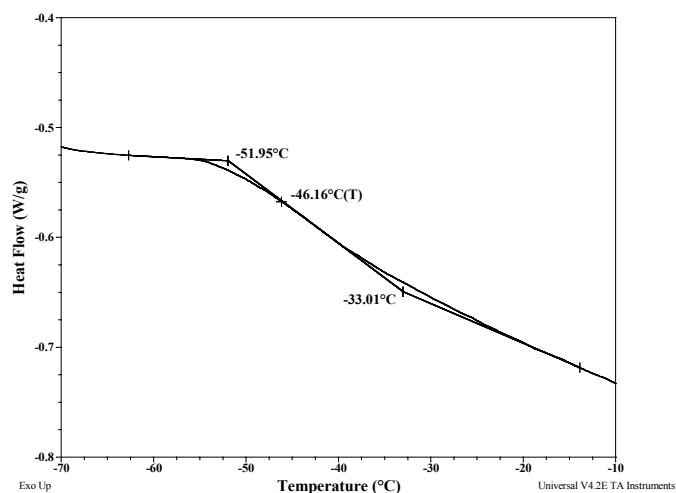
Melting and crystallization curve for the sample

The melting temperature (T_m) was taken as the maximum of the endothermic peak where as the crystallization temperature (T_c) was considered as the minimum of the exothermic peak.

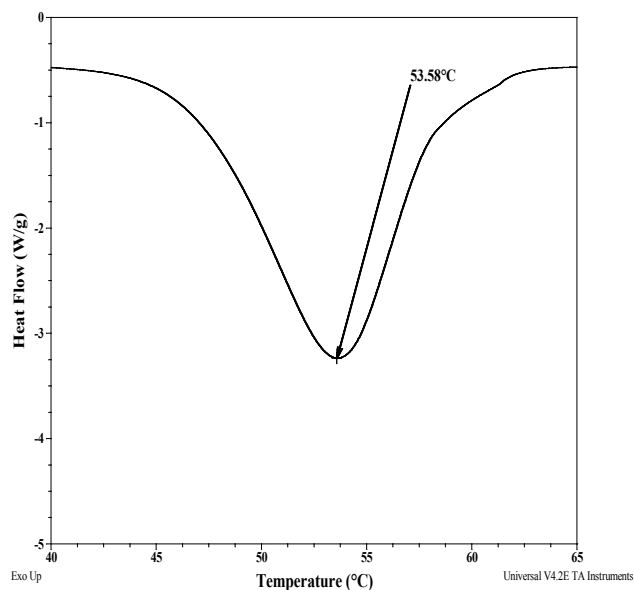
Thermal analysis results at a glance

Sample	T_m (°C)	T_c (°C)	T_g (°C)
EGTMS	54	32	-46

DSC thermogram for the polymer:



Melting curve for the sample:



Crystallization curve for the sample:

