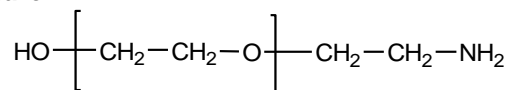


Sample Name: α -Amino-, ω -Hydroxy-Terminated
Poly(Ethylene Glycol)

Sample # P18272-EGNH2OH

Structure:



Composition:

Mn x 10 ³	PDI	NH ₂ functionality
2.5	1.10	> 99%

Synthesis procedure:

α -Amino ω -hydroxy terminated poly(ethylene glycol) was synthesized by proprietary method. Please call us if you would like to know details.

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.

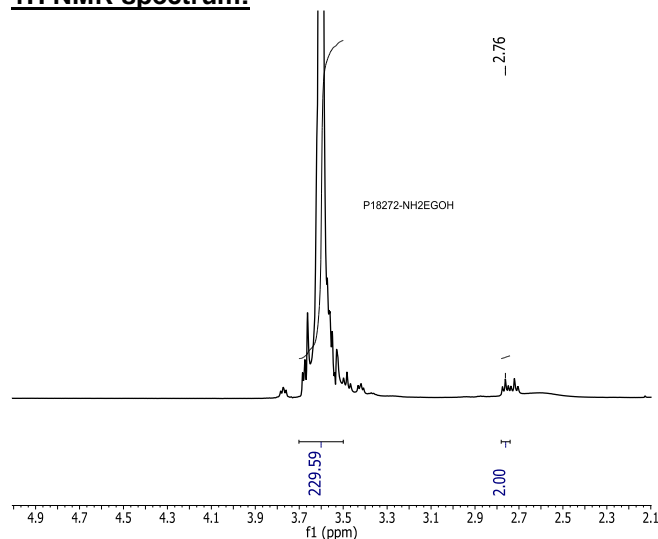
Functionality:

Functionality of the polymer was determined by ¹H NMR analysis or FT-IR spectroscopy or by titration.

Solubility:

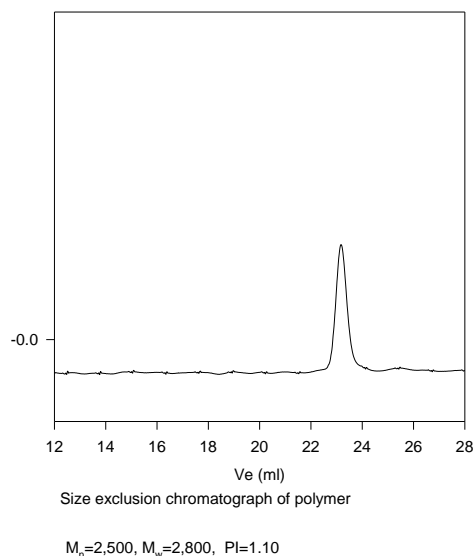
Polymer is soluble in water, methanol and ethanol, THF, CHCl₃. It is precipitated out from cold ethanol, isopropanol, hexane and ether.

1H NMR spectrum:



SEC elugram:

P18272-EGNH2OH



References:

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

Thermal analysis of the sample# P18272-EGNH2OH

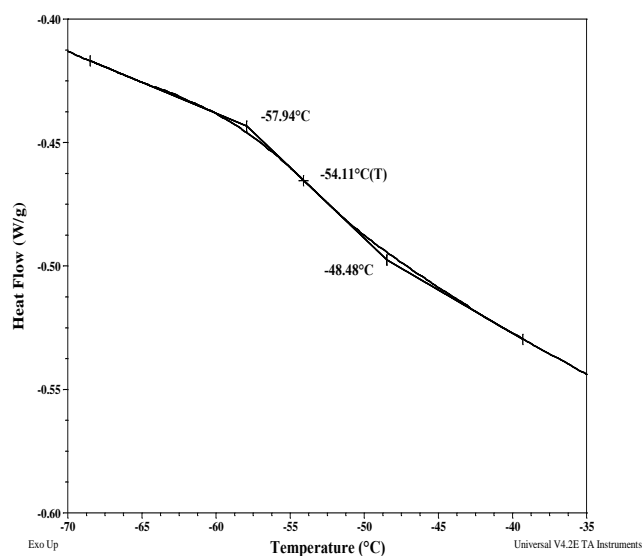
Thermal analysis of the samples was carried out on a TA Q100 differential scanning calorimeter at a heating rate of 10°C/min. The midpoint of the slope change of the heat flow plot of the second heating scan was considered as the glass transition temperature (T_g).

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.

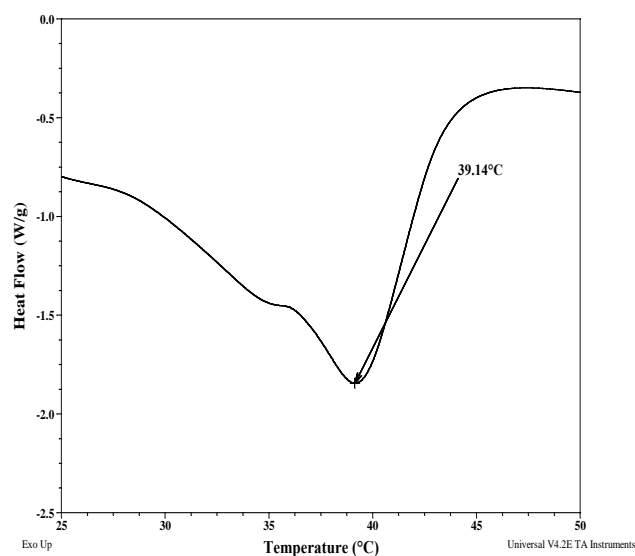
Summary of thermal analysis results:

Sample	T_m (°C)	T_c (°C)	T_g (°C)
PEG-TMS	39	14	-54

DSC thermogram for the polymer:



Melting curve for the sample:



Crystallization curve for the sample:

