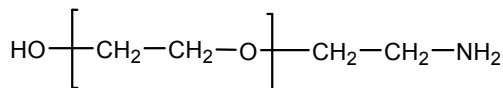


Sample Name:

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

Sample: P8696-EGNH2OH

Structure:**Composition:**

Mn x 10 ³	PDI
1.1	1.15

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.

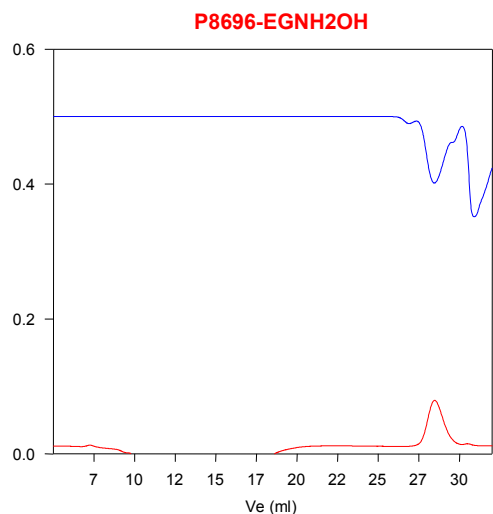
Characterization:

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.

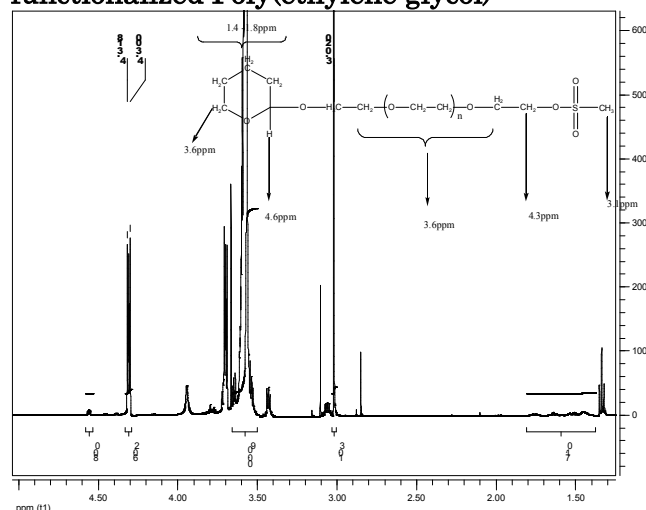
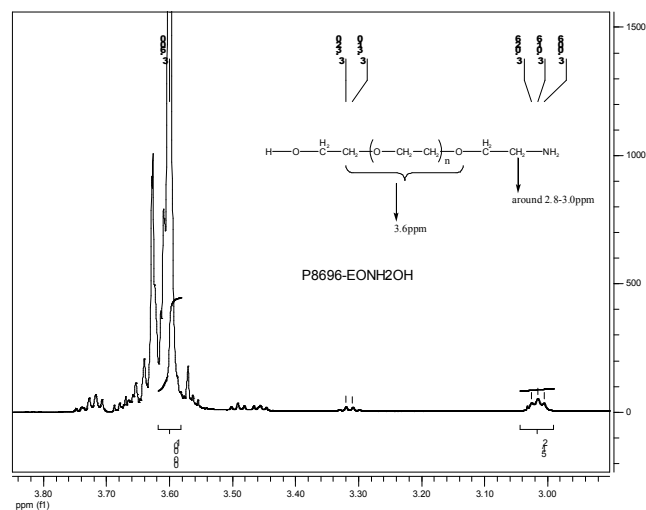
Solubility:

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

SEC of the polymer:

Size exclusion chromatography of amino-terminated Poly(ethylene glycol) capped with naphthyl isocyanate (amino-polymer cannot be eluted in these columns):

— RI signal: Mn=1100, Mw=1250, Mw/Mn=1.15, NH₂ Functionality > 95%
— UV signal running at 290 nm

¹H NMR α pyran ω mesylate end functionalized Poly(ethylene glycol)**¹H NMR Spectrum of the product:****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# P8696-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).

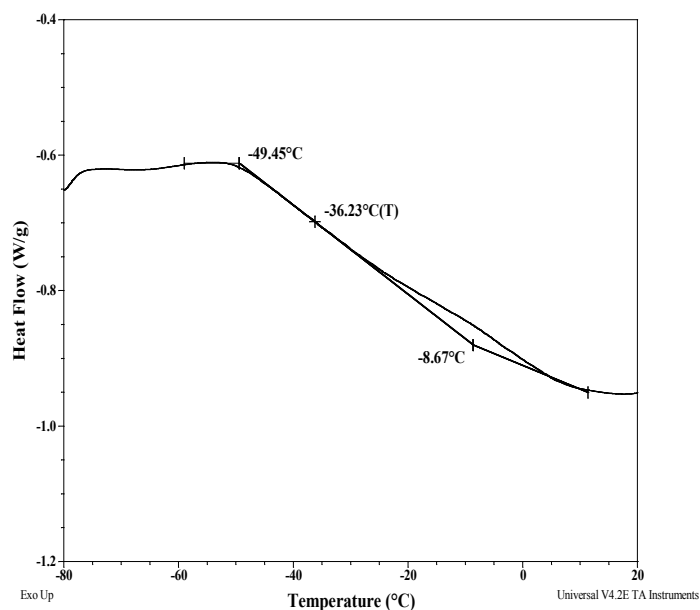
Melting and crystallization curve for the sample

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.

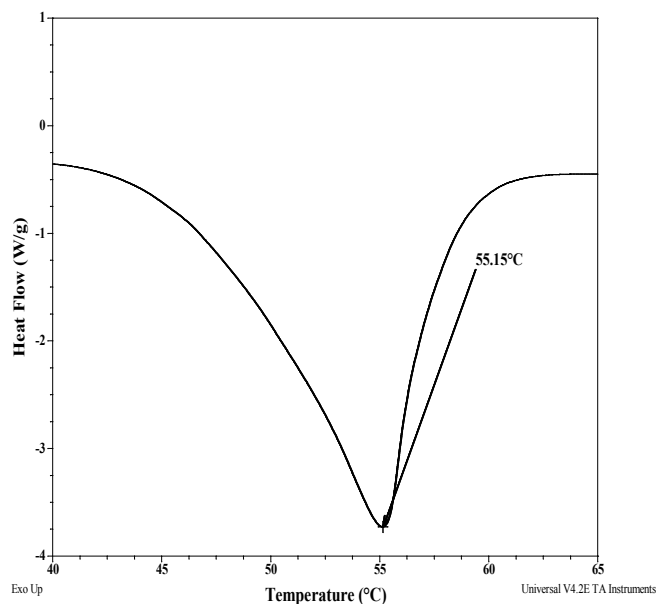
Thermal analysis results at a glance

Sample	T_m (°C)	T_c (°C)	T_g (°C)
EGTMS	55	27	-36

DSC thermogram for the polymer:



Melting curve for the sample:



Crystallization curve for the sample:

