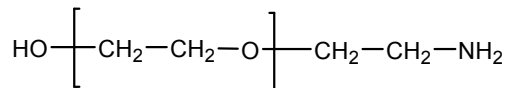


Sample Name:

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

Sample: P5907-EGNH2OH

Structure:

Appearance: Ivory color powder

Composition:

Mn x 10 ³	PDI	NH ₂ functionality
2.2	1.12	> 99%

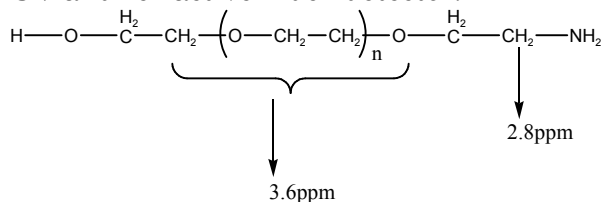
Synthesis Procedure:

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

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

Characterization:

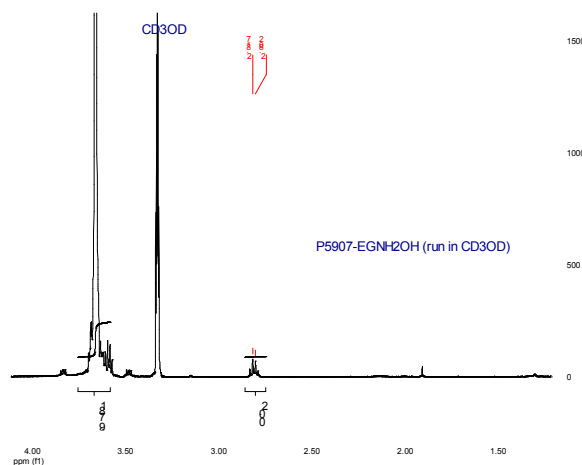
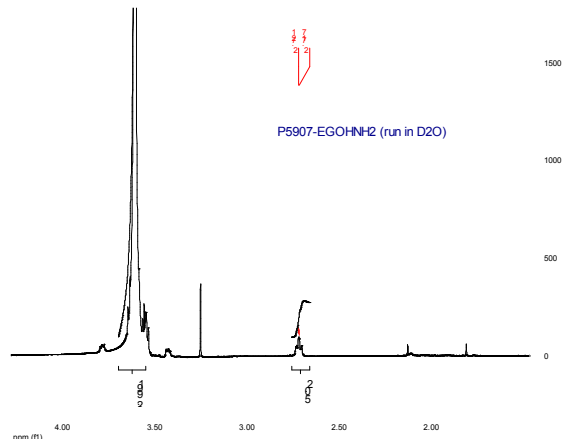
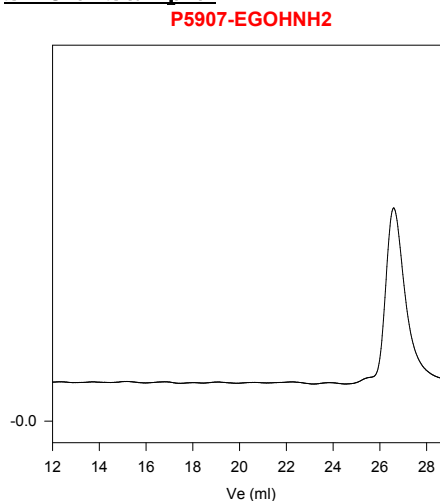
The molecular weight and polydispersity index of this polymer were determined by size exclusion chromatography (SEC) using a Varian liquid chromatograph equipped with a UV and refractive index detector.



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:**

Size exclusion chromatograph of
 α , hydroxy ω amino terminated poly(ethylene glycol):

M_n=2200, M_w=2400, PI=1.12 NH₂ functionality> 99%
MN determined by HNMR and the distribution by SEC

References:

S. K. Varshney, J.X. Zhang, Apply US Patent :
7,009,033 B2, 2006. Heterofunctional Polyethylene
glycol and Poly ethylene oxide, process for their
Manufacture.

Thermal analysis of the sample# P5907-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).

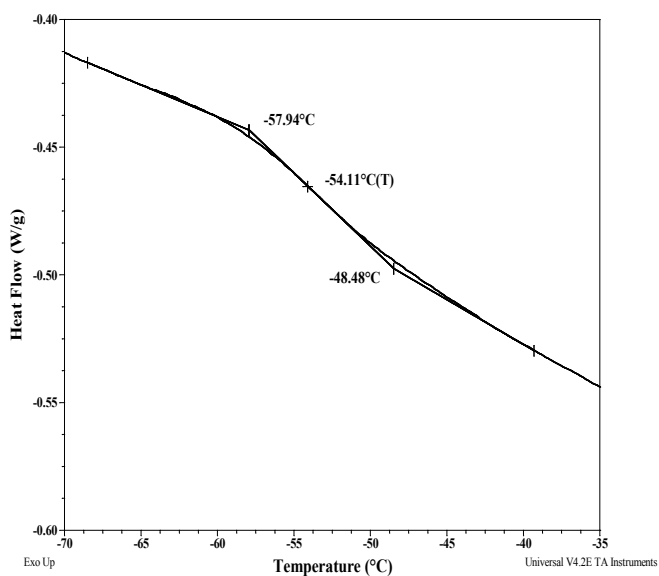
Melting and crystallization curve for the sample

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.

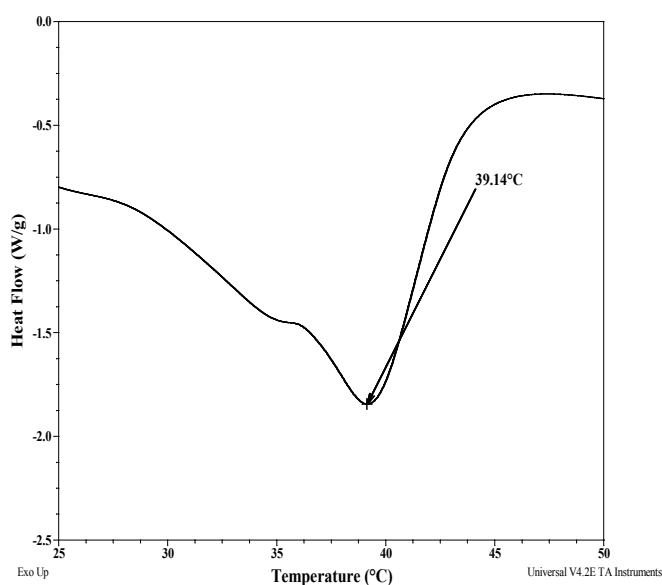
Thermal analysis results at a glance

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

DSC thermogram for the polymer:



Melting curve for the sample:



Crystallization curve for the sample:

