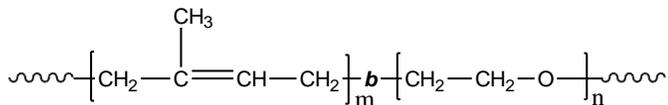


Sample Name:  
**Poly(1,4-isoprene)-b-poly (ethylene oxide)**

Sample #: **P42016B-IPEO**

**Structure:**



**Composition:**

Mn × 10 <sup>3</sup> PIP-b-EO	Mw/Mn (PDI)
48.0-b-10.5	1.01

**Synthesis Procedure:**

Poly(Isoprene 1,4 addition or 1,2 addition)-b-ethylene oxide) can be prepared by anionic polymerization process.

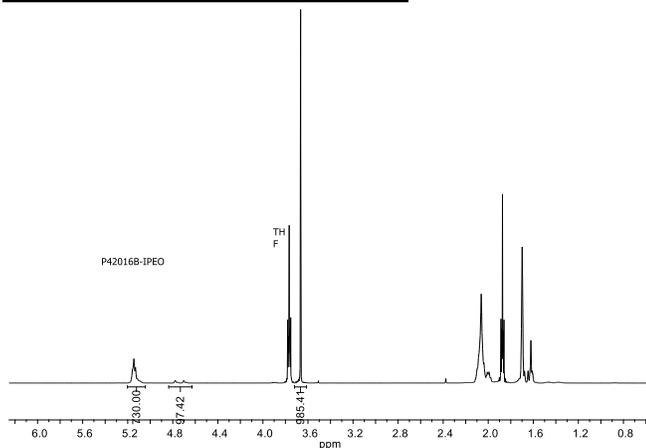
**Characterization:**

The product was characterized by size exclusion chromatography (SEC) and <sup>1</sup>H NMR.

**Solubility:**

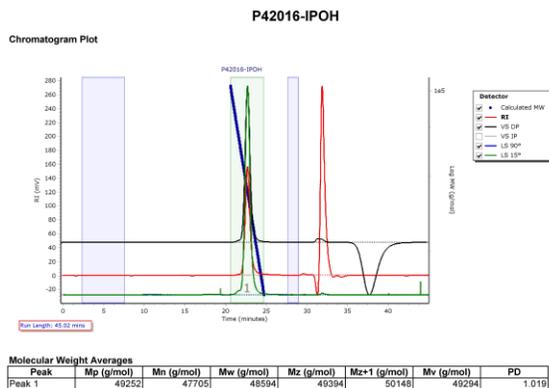
Poly (isoprene-b-ethylene oxide) is soluble in THF, and CHCl<sub>3</sub>.

**HNMR of the Block Copolymer:**



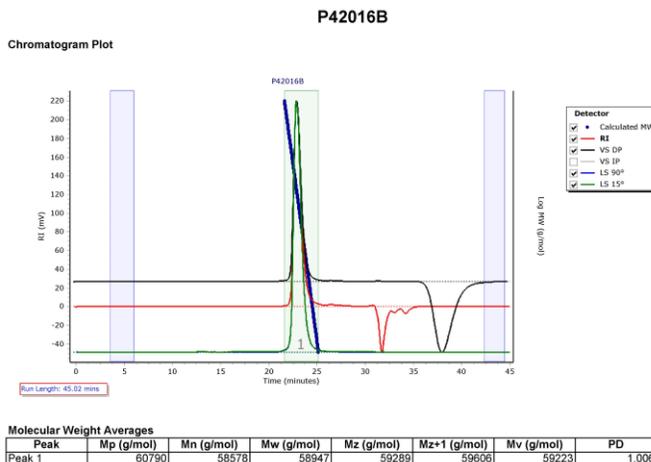
**SEC elugram of the first Block:**

Agilent GPC/SEC Software



**SEC elugram of the block copolymer:**

Agilent GPC/SEC Software



**Thermal analysis of the sample# P42016B-IPEO**

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<sub>g</sub>).

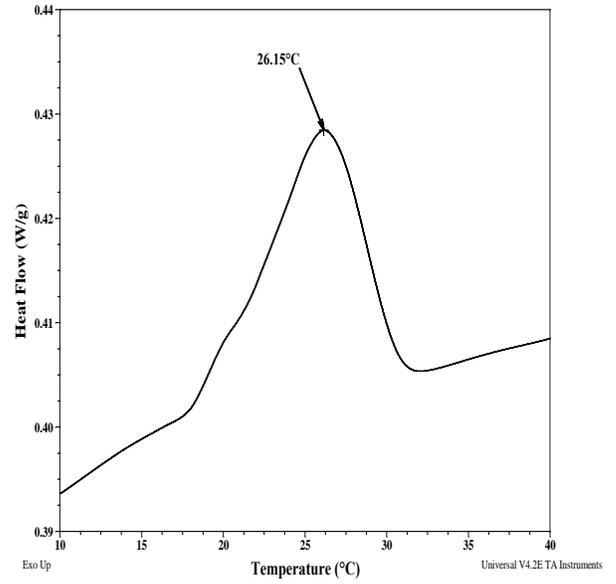
**Melting and crystallization curve for the sample**

The melting temperature (T<sub>m</sub>) was taken as the maximum of the endothermic peak whereas the crystallization temperature (T<sub>c</sub>) was considered as the minimum of the exothermic peak.

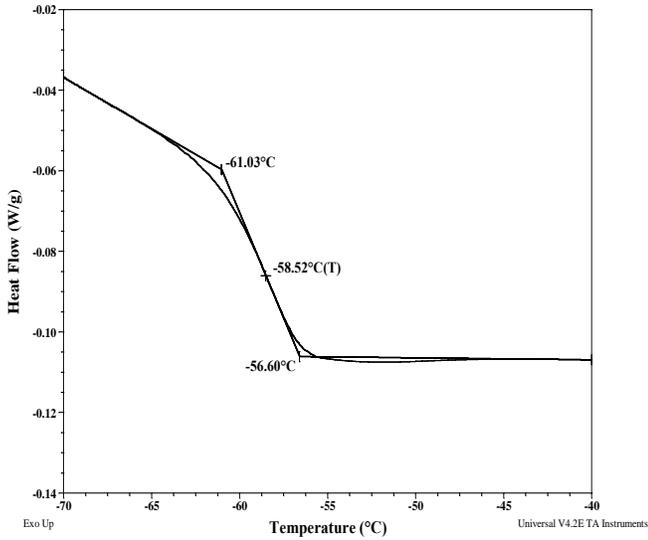
**Thermal analysis results at a glance:**

Sample	T <sub>m</sub> (°C)	T <sub>c</sub> (°C)	T <sub>g</sub> (°C)
EO	49	26	-
IP	-	-	-59

**Crystallization curve for PEO block:**



**Thermogram for Ip block:**



**Melting curve for PEO block:**

