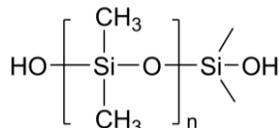


**Sample Name: Poly(dimethyl siloxane),  $\alpha,\omega$ -bis(silanol)-terminated**

**Sample #: P9155-DMS**

**Structure:**



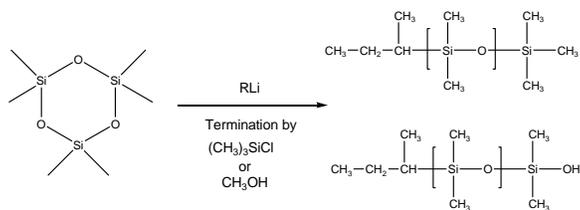
**Composition:**

Mn x 10 <sup>3</sup>	PDI
25.0	1.5

T <sub>m</sub> (°C): -43
T <sub>c</sub> (°C): -72
T <sub>g</sub> (°C): -127 (Lit.)

**Synthesis Procedure:**

The polymerization of the cyclic trimer (hexamethyl cyclotrisiloxane-D3) was initiated with a monofunctional lithium-based initiator in a polar / non-polar solvent mixture.



**Characterization:**

The molecular weight and polydispersity index (PDI) are obtained by size exclusion chromatography (SEC).

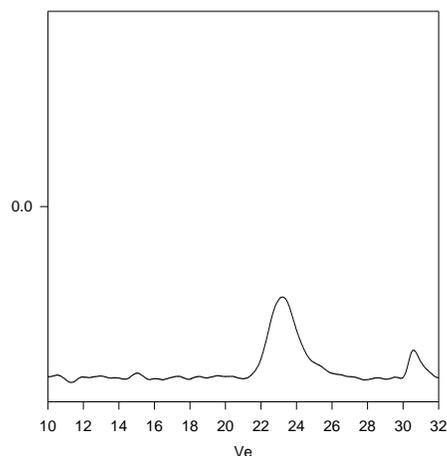
**Thermal analysis:**

Thermal analysis of the samples was carried out on a TA Q100 differential scanning calorimeter at a heating rate of 10°C/min. The melting temperature (T<sub>m</sub>) was taken as the maximum of the endothermic peak where as the crystallization temperature (T<sub>c</sub>) was considered as the minimum of the exothermic peak.

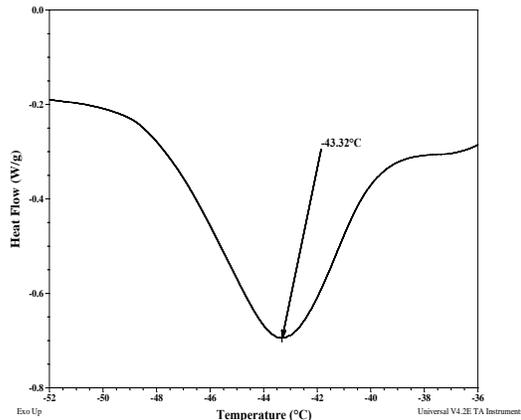
**Solubility:**

Polysiloxane is soluble in hexane, toluene, cyclohexane, THF and chloroform. It precipitates from methanol and ethanol.

**SEC profile of Homopolymer: P9155-DMS**



**Melting curve for DMS:**



**Crystallization curve for DMS:**

