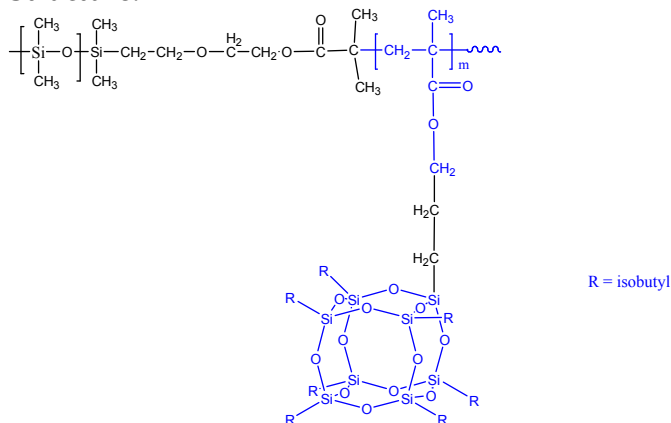


Sample Name:**Poly(dimethylsiloxane-b-POSSisobutylmethacrylate)**

POSSisoButylMA: 3-(3,5,7,9,11,13,15-heptaisobutylpentacyclo[9.5.1.13,9.15,15.17,13]octasiloxan-1-yl)propylmethacrylate

Sample #: *P14016-DMSPOSSisoBuMA*

Structure:**Composition:**

Mn x 10 ³ PDMS-b- POSSisoBuMA	PDI
5.0-b-23.0	1.25

Synthesis Procedure:

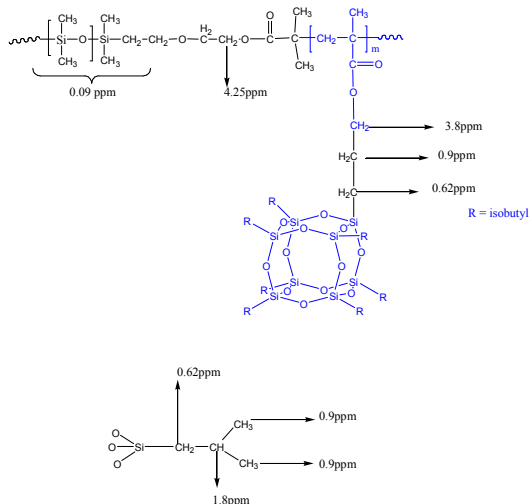
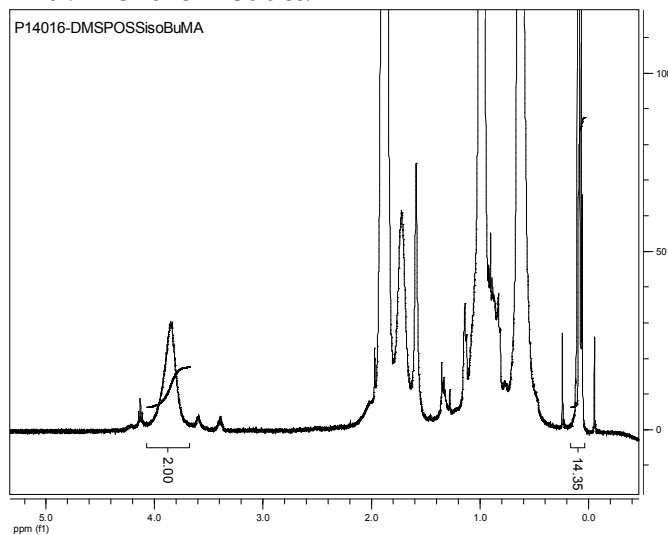
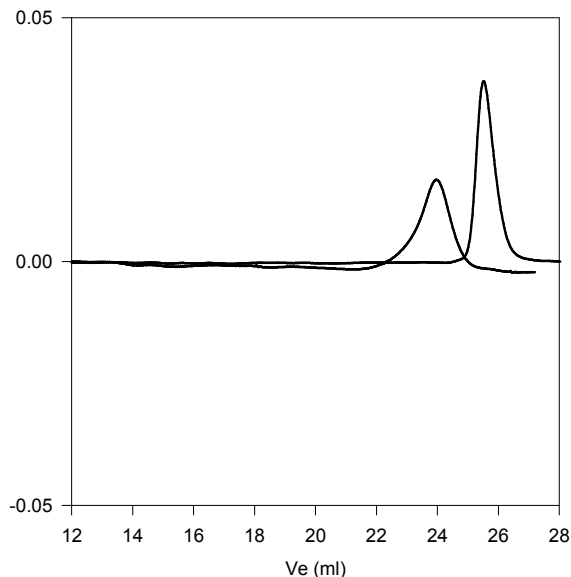
Polymer is synthesized by controlled radical polymerization process.

Purification of the polymer:

The obtained polymer dissolved in CHCl₃/toluene and pass through the column packed with silica. The polymer was recovered by precipitation in cold ether/ethanol mixture.

Solubility:

Polymer is soluble in CHCl₃, THF and toluene. The polymer precipitated out from hexane.

Chemical Shifts:**HNMR of the Product:****SEC of the block copolymer:****P14016-DMSPOSSisoBuMA**

— Poly(DMS): M_n=5000, M_w=6300, M_w/M_n=1.05

— Block Copolymer PDMS(5000)-b-POSSisoBuMA(23,000), M_w/M_n=1.25

Thermal analysis of the *P14016-DMSPOSSisoBuMA*

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).

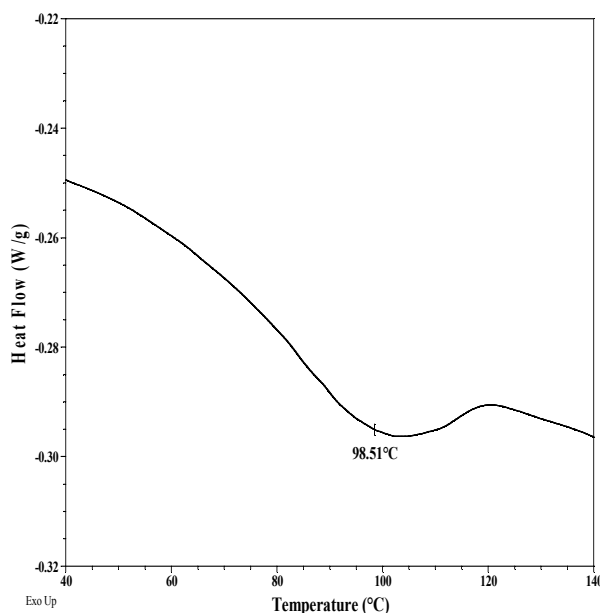
Melting and crystallization curve for the sample

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)
DMS block	Not distinct		
POSSMA block	99	45	-

Melting curves for POSSMA:



Crystallization curves POSSMA block:

