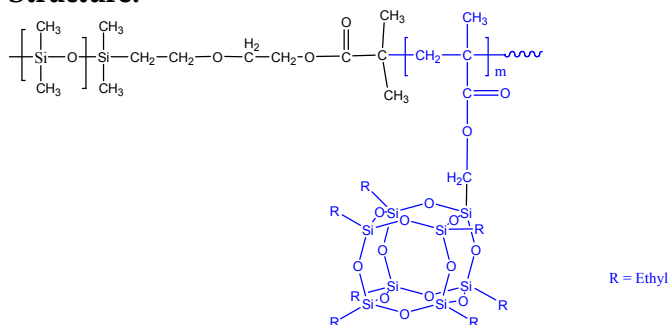


Sample Name:**Poly(dimethylsiloxane-b-POSSEthylmethacrylate)**

POSSEtMA: 2-Propenoic acid, 2-methyl-
3(heptaethylpentacyclo
9.5.1.13,9.15,15.17,13]octasiloxanyl)methylester

Sample #: *P14029-DMSPOSSEtMA*

Structure:**Composition:**

Mn x 10 ³	PDI
PDMS-b-POSSEtMA	
5.0-b-19.5	1.15

Synthesis Procedure:

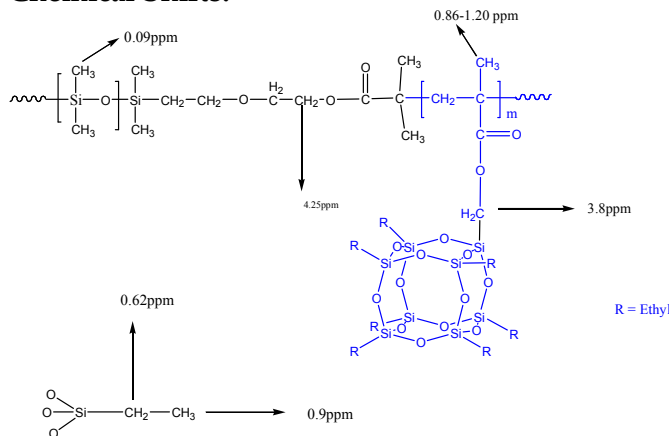
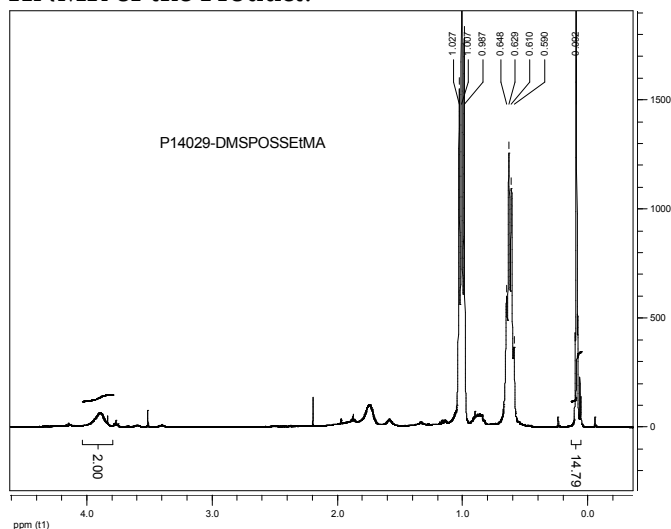
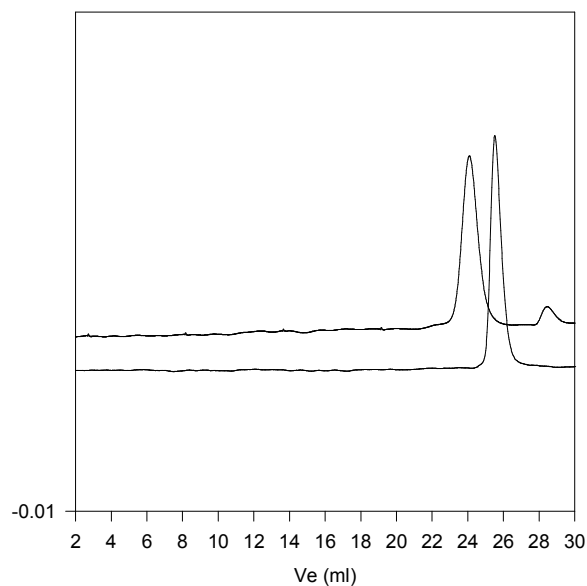
Polymer is synthesized by controlled radical polymerization process.

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:****P14029-DMSPOSSEtMA**

Size exclusion chromatography of poly(DMS-b-acrylate):

— Polydimethylsiloxane, M_n=5000, M_w=5500, PI=1.08

— Block Copolymer PDMS(5000)-b-POSSEtMA(19500), PI=1.15

Thermal analysis of the *P14029-DMSPOSSEtMA*

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).

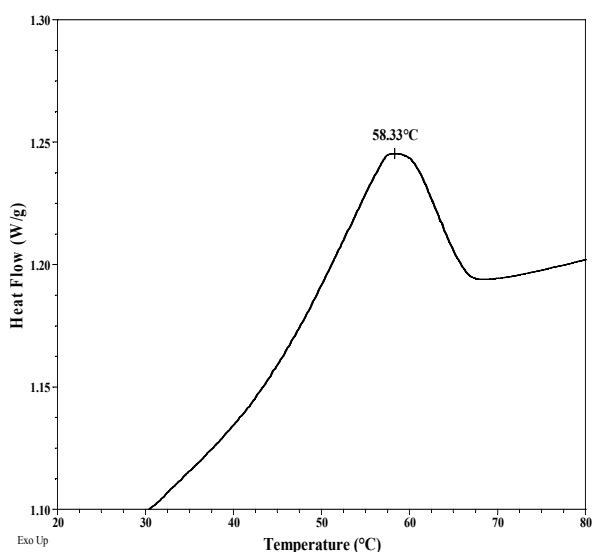
Melting and crystallization curve for the sample

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)
POSSMA block	69, 103	58	-
DMS block	-	-	-

Crystallization curves POSSisoBuMA block:



Melting curves for POSSBuMA:

