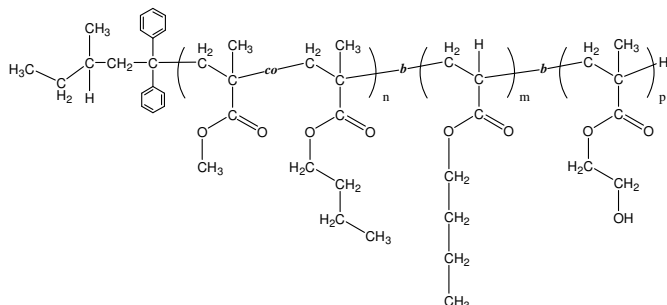


Sample Name:

Poly(methyl methacrylate-*co*(*random*)-*n*-butyl methacrylate) -*block*-poly(*n*-butylacrylate)-*block*-2-hydroxyethyl methacrylate

Sample #: **P19755A-MMAnBuMAran-b-nBuA-b-HEMA**

Structure:



Composition:

$M_n \times 10^{-3}$ (g/mol)	20.5- <i>b</i> -5.0- <i>b</i> -24.5
M_w/M_n	1.12

Molar ratio MMA : nBuMA	52 : 48 (mol/mol)
Weight ratio MMA:nBuMA	60:40

Synthesis Procedure:

The polymer was synthesized by anionic process.

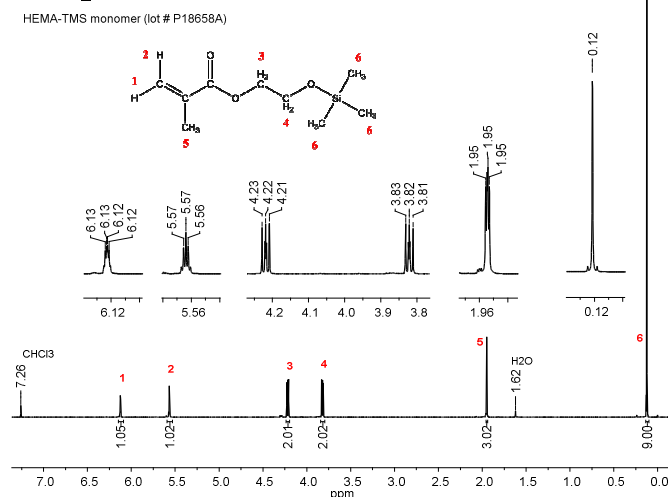
Solubility:

The polymer is soluble in THF, DMF.

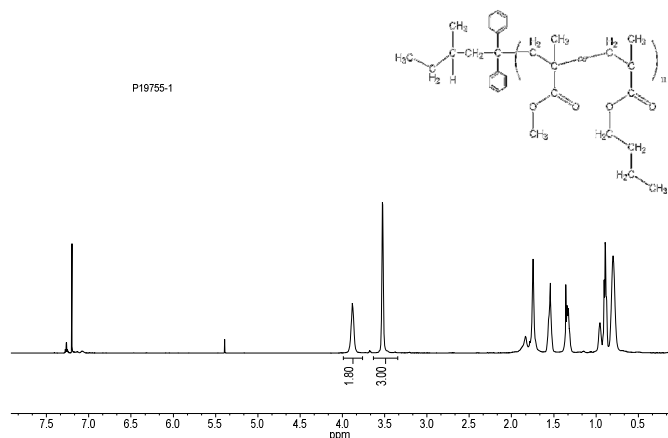
Characterization:

The polymer composition was calculated by ^1H NMR. The average molecular weight and polydispersity index were determined by size exclusion chromatography (SEC). Thermal analysis of the sample was done on a TA Q100 differential scanning calorimeter (DSC) at a heating rate of $10^\circ\text{C}/\text{min}$. The glass transition temperature (T_g) was determined as a midpoint of step change in heat flow curve for the second heating scan.

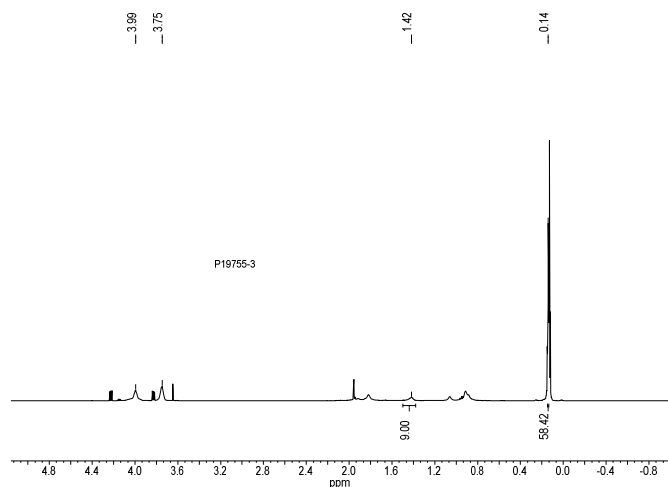
^1H NMR of HEMA-TMS monomer (500 MHz, CDCl_3):



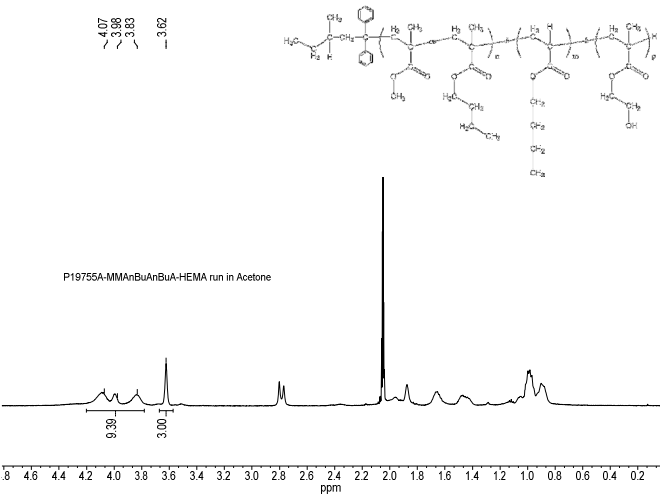
^1H NMR of MMA-nBuMA [first block] in CDCl_3 :



^1H NMR of MMAnBuMA-b-tBuA-b-HEMATMS in CDCl_3 :



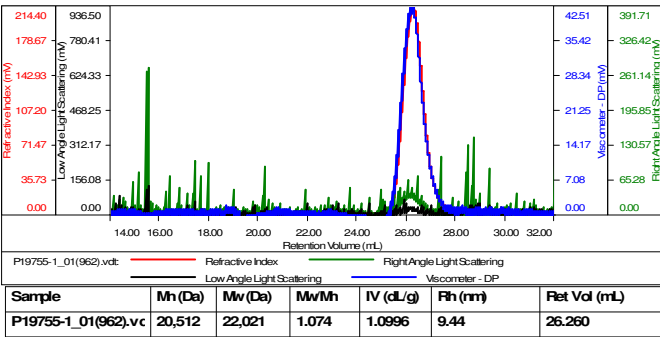
¹H NMR of MManBuMA-b-nBuA-HEMA in acetone-d₆:



SEC of MMA-nBuMA [first block]:

Sample ID-P19755-1

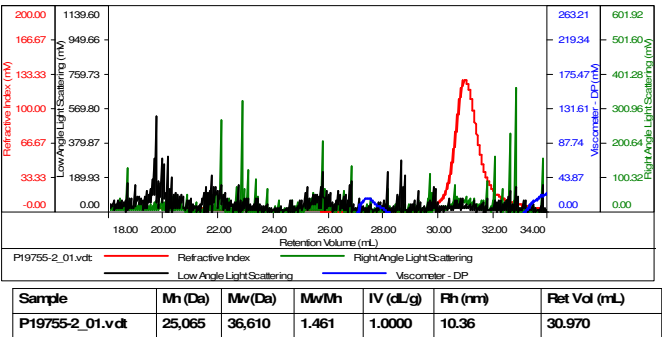
Concentration (mg/mL)	1.4764
Sample dn/dc (mL/g)	0.0880
Method File	PS80K-March2016-0001.vcm
Column Set	3x PL 1113-6300
Solvent	THF



SEC of [MMA-nBuMA]-b-tBuA diblock copolymer:

Sample ID-P19755-2

Concentration (mg/mL)	1.0188
Sample dn/dc (mL/g)	0.0940
Method File	PS80K-March2016-0001.vcm
Column Set	3x PL 1113-6300
Solvent	THF



Sample ID-P19755-3

Concentration (mg/mL)	3.1063
Sample dn/dc (mL/g)	0.0800
Method File	PS80K-March2016-0001.vcm
Column Set	3x PL 1113-6300
Solvent	THF

