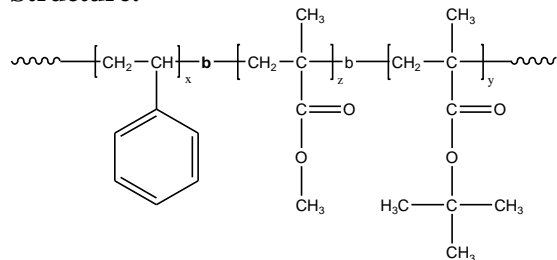


Sample Name:

Poly(styrene-*b*-methylmethacrylate-*b*-tert.-butylmethacrylate)

Sample #: **P11047-SMMAtBuMA**

Structure:



Composition:

Mn x 10 ³ S- <i>b</i> -MMA- <i>b</i> -tBuMA	PDI
190.0- <i>b</i> -33.0- <i>b</i> -15.5	1.08

Synthesis:

The polymer was prepared by living anionic polymerization with sequence addition of styrene, methyl methacrylate (MMA) and tert-butylmethacrylate.

Characterization:

The chemical composition of block copolymer was calculated from proton NMR using CDCl₃ as solvent. The molecular weights and polydispersity index (PDI) of final block were obtained from size exclusion chromatography (SEC).

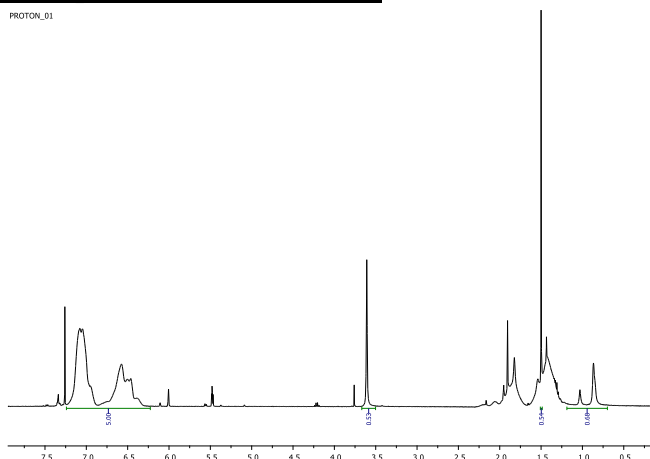
Thermal analysis:

Thermal analysis of the samples was carried out on a TA Q100 differential scanning calorimeter at a heating rate of 10°C/min. The midpoint of the slope change of the heat flow plot of the second heating scan was considered as the glass transition temperature (T_g).

Solubility:

Polymer is soluble in THF, toluene, and CHCl₃. The polymer readily precipitates from hexanes, ether and water.

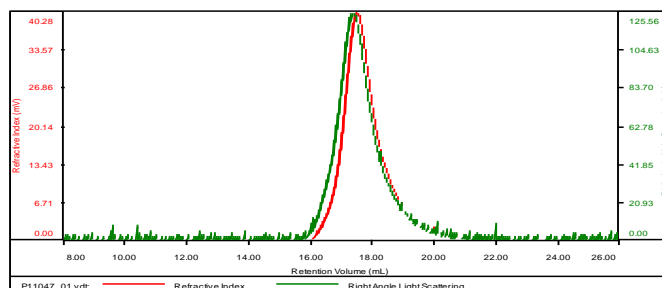
¹HNMR spectrum of the Polymer:



SEC elugram of the polymer:

P11047

Concentration (mg/mL)	2.0147
Sample dn/dc (mL/g)	0.1750
Method File	PS80K-sept-2018-0000.vcm
Column Set	3x PL 1113-6300
Solvent	THF



Sample	Mn (Da)	Mw (Da)	Mw/Mn	IV (dL/g)	Mp (Da)
P11047_01.vdt	237,964	257,370	1.082	0.6315	235,624