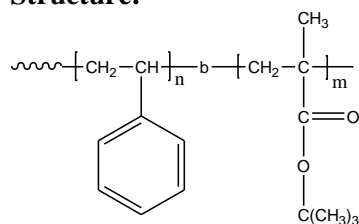


Sample Name: Poly(styrene-b-t-butyl methacrylate)

Sample #: P11068-StBuMA

Structure:



Composition:

Mn x 10 ³ S-b-tBuMA	Mw/Mn (PDI)
246.0-b-562.0	1.2

Synthesis Procedure:

Poly(styrene-b-t-butyl methacrylate) is prepared by anionic polymerization with sequence addition of styrene followed by t-butyl methacrylate.

Characterization:

The final block copolymer composition was calculated from ¹H-NMR spectroscopy by comparing the peak area of the styrene aromatic protons at 6.3-7.2 ppm with the methyl proton of t-butyl methacrylate protons at 0.8-1.2 ppm. Final block copolymer PDI is determined by SEC in THF.

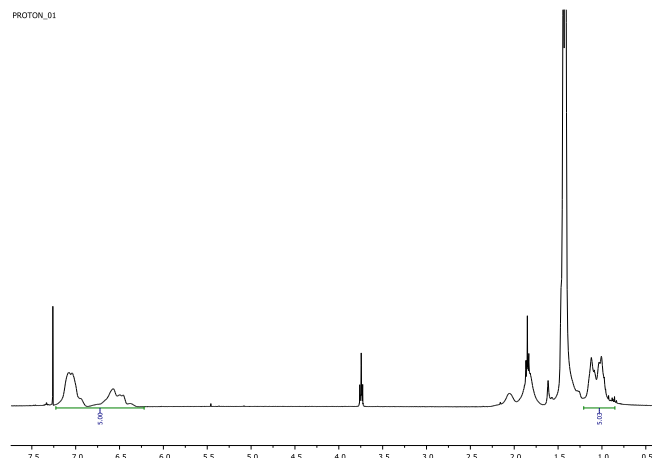
Thermal analysis

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:

Poly(styrene-b-t-butyl methacrylate) is soluble in THF, dioxane, CHCl₃.

¹H NMR spectrum of the block copolymer:



SEC of the block copolymer:

