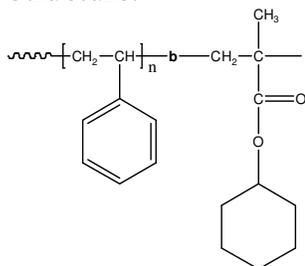


Sample Name: Poly(styrene-b-cyclohexyl methacrylate)

Sample #: P3072-SCHMA

Structure:



Composition:

Mn x 10 ³ S-b-CHMA	Mw/Mn (PDI)
550-b-520	1.25

Synthesis Procedure:

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

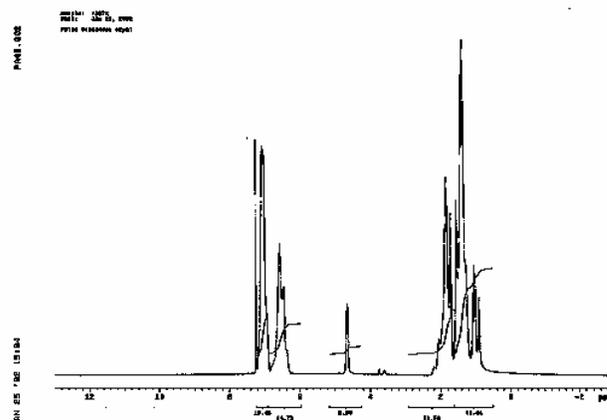
Characterization:

An aliquot of the polystyrene block was terminated before addition of cyclohexyl methacrylate and analyzed by size exclusion chromatography (SEC) to obtain the molecular weight and polydispersity index (PDI). The final block copolymer composition was calculated from ¹H-NMR spectroscopy by comparing the peak area of the styrene protons at 6.3-7.2 ppm with the peak area of cyclohexyl methacrylate protons at ppm. Block copolymer PDI is determined by SEC.

Solubility:

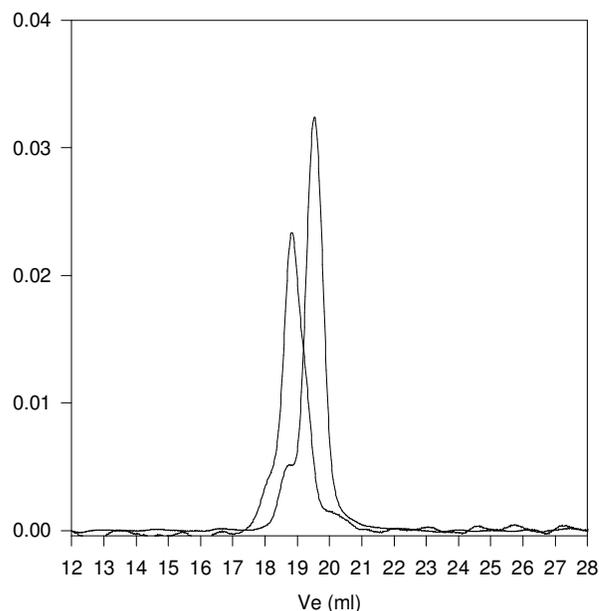
Poly(cyclohexyl methacrylate) is soluble in THF, CHCl₃.

¹H NMR spectrum of the sample



SEC profile of the block copolymer

P3072-SCHMA



— Polystyrene, M_n=550,000, M_w=605,000, PI=1.10

— Block Copolymer PS(550,000)-b-PCHMA(520,000), PI=1.25