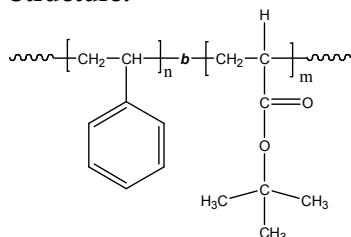


Sample Name: Poly (styrene-b- tert.butyl acrylate)
Sample #: P19321A-StBuA

Structure:



Composition:

Mn x 10 ³ S-b-tBuA	PDI
56,5-b-10.5	1.10

Synthesis Procedure:

Poly (styrene-b-tert.butyl acrylate) is prepared by living anionic polymerization in THF at -78 °C using sec.BuLi initiator adduct with α-methyl styrene in the presence of LiCl. tert.butyl acrylate (tBuA) monomer was added after dilution in THF. For further details please see our published articles.¹⁻⁴

Characterization:

Polymer was 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 Copolymer Mw/Mn is determined by SEC.

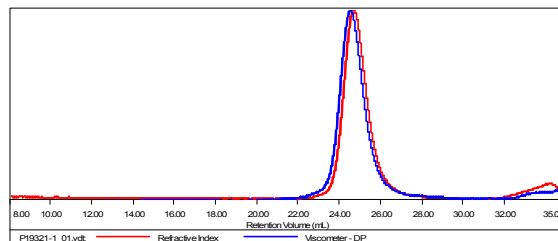
Solubility:

Poly (styrene-b-tert.butylacrylate) is soluble in THF, toluene, dioxane and CHCl₃.

SEC for the sample:

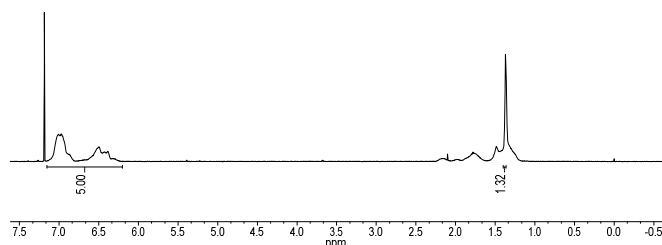
Sample ID: P19321-S

Concentration (mg/mL)	3.1765
Sample dn/dc (mL/g)	0.1850
Method File	PS80K-Mk20-2015-0000.vcm
Column Set	3x PL 1113-6300
Solvent	THF



Sample	MW Number Average (Da)	MW Weight Average (Da)	MW at Peak (Da)	Polydispersity	Intrinsic Viscosity (dL/g)
P19321-1_01.vdt	56,586	62,330	56,274	1.102	0.5471

¹H NMR for the polymer:



References for further information:

1. S. K. Varshney, R. Fayt, Ph. Teyssie, and J.P. Hautekeer US Patent 5,264,527 (1993)
2. Ph. Teyssie, R. Fayt, **S. K. Varshney**, and C. Jacobs Eur. Pat. Appl., Jan 16, 1991 *Eur. Pat. 408420*
Patent Assignees- Atochem S.A France. CA. Vol 114, 26, 247998. "Star Block Copolymers based on Acrylates and Methacrylates and their Manufacture process".
3. Ph. Teyssie, R. Fayt, and **S. K. Varshney**, *Eur. Pat. Appl. Dec. 12, 1990. Eur. Pat. 402204*
Patent Assignees-Norsolor S.A. France. CA Vol 114, 20, 186314. "Catalyst for the the Anionic Living Polymerization (Meth)acrylates".