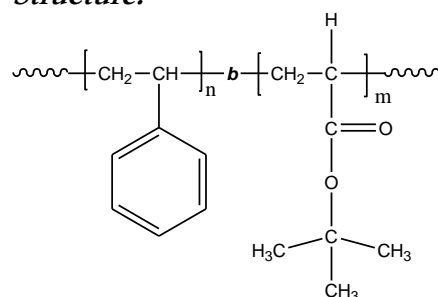


**Sample Name:** Poly(styrene-b-tert.butylacrylate)

**Sample #:** P18754A-StBuA

**Structure:**



**Composition:**

Mn x 10 <sup>3</sup> S-b-tBuA	PDI
28.0-b-123.0	1.18

**Synthesis Procedure:**

Poly(styrene-b-tert.acrylate) is prepared by living anionic polymerization in THF at -78 °C using sec.BuLi initiator adduct with  $\alpha$ -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.<sup>1-4</sup>

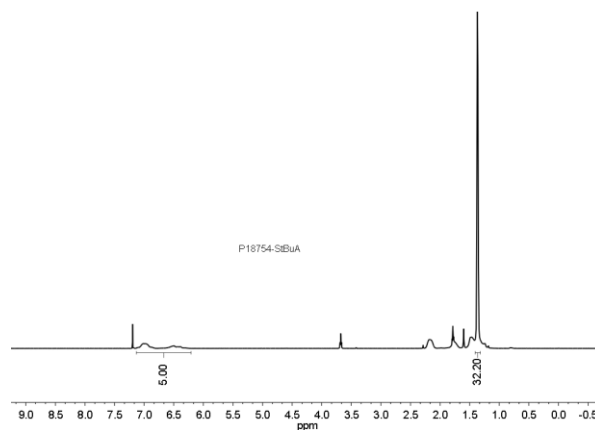
**Characterization:**

Polymer analyzed by size exclusion chromatography (SEC) to obtain the molecular weight and polydispersity index (PDI). The final block copolymer composition was calculated from <sup>1</sup>H-NMR Copolymer Mw/Mn is determined by SEC.

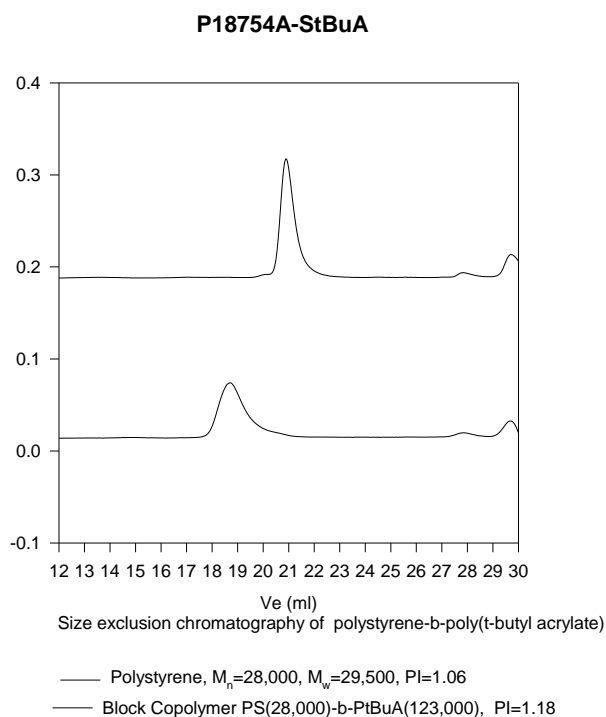
**Solubility:**

Poly(styrene-b-tert.butylacrylate) is soluble in THF, toluene, dioxane and CHCl<sub>3</sub>

**<sup>1</sup>H-NMR for the polymer:**



**SEC for the sample :**



**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".