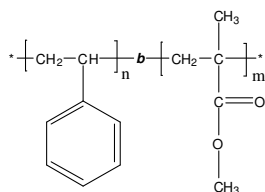


**Sample Name:** Poly (styrene-*b*-methyl methacrylate)  
(PMMA block is predominantly syndiotactic, >78%)

**Sample #** P19617P-SMMA

**Structure:**



**Composition:**

Mn x 10 <sup>3</sup> S-b-MMA	PDI
795.0-b-275.0	1.17

T <sub>g</sub> for PS block:	103°C
T <sub>g</sub> for PMMA block:	103°C

**Synthesis procedure:**

The polymer was synthesized by anionic polymerization.

**Characterization:**

The polymer was characterized by SEC, <sup>1</sup>H NMR, and DSC.

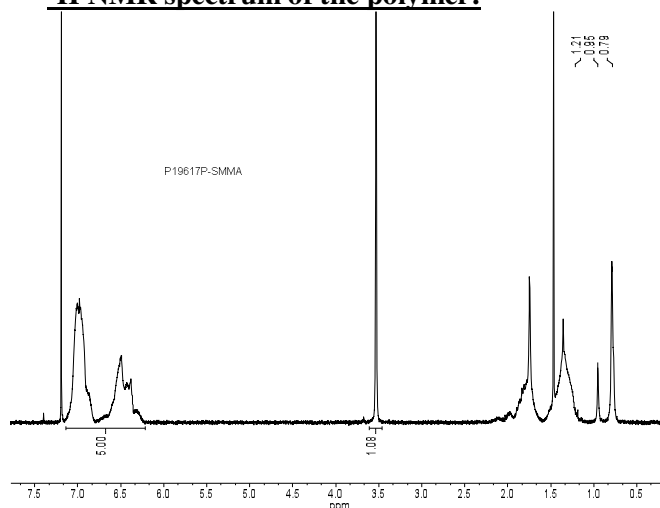
**Solubility:**

Poly(styrene-*b*-methyl methacrylate) is soluble in THF, toluene, dioxane, chloroform; and it precipitates from methanol, ethanol, hexanes, water.

**References:**

1. S. K. Varshney, R. Fayt, Ph. Teyssie, and J.P. Hautekeer US Patent 5,264,527 (1993)
2. Ph. Teyssie, Ph. Bayard, R. Jerome, S. K. Varshney, and J. S. Wang, *35th IUPAC International Union of Pure & Applied Chemistry International Symposium on Macromolecules* 1994, 67.

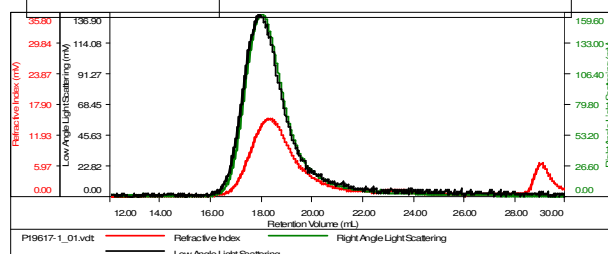
**<sup>1</sup>H NMR spectrum of the polymer:**



**SEC elugram:**

**Sample ID-P19617-S**

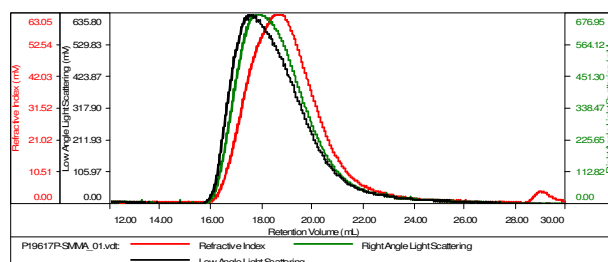
Concentration (mg/mL)	0.1880
Sample dn/dc (mL/g)	0.1880
Method File	PS80K-June80-2015-0000.vcm
Column Set	3x PL 1113-6300
Solvent	THF



Sample	MW Number Average (Da)	MW Weight Average (Da)	MW at Peak (Da)	Polydispersity	Intrinsic Viscosity (dL/g)
P19617-1_01.vcl	795,031	911,412	849,317	1.146	10.1117

**Sample ID-P19617P-SMMA**

Concentration (mg/mL)	1.1696
Sample dn/dc (mL/g)	0.1610
Method File	PS80K-June80-2015-0000.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)
P19617P-SMMA_01.vcl	1.099 e 6	1.251 e 6	1.018 e 6	1.171	10.7942

(v. K-01)