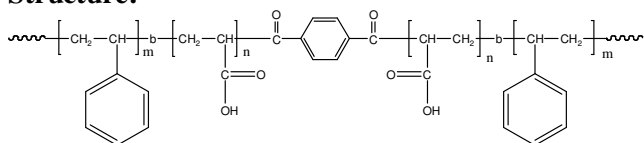


Sample Name:

Poly(styrene-b-acrylic acid-b-styrene)

Sample #: **P19591-SAAS**

Structure:



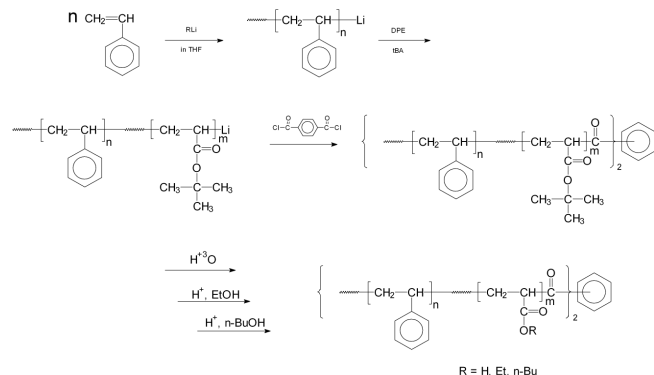
Composition:

Mn x 10 ³ (S-b-AA-b-S)	PDI
2.0-b-22.0-b-2.0	1.22

T _g for PS block:	Not distinct
T _g for AA block:	116°C

Synthesis Procedure:

The scheme of the reaction is illustrated below:



Characterization:

Polymer was characterized by SEC and ¹H NMR.

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:

Polymer is soluble in THF, toluene and CHCl₃. It precipitates from methanol, ethanol, water and hexanes (depending on the compositions).

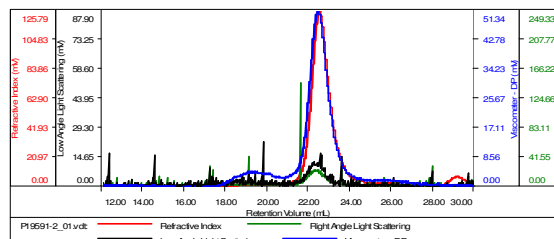
Reference:

S.K. Varshney, P. Kesani, N. Agarwal, J. Xin. Zhang, M. Rafailovich. Synthesis of ABA type thermoplastic elastomers based on Polyacrylates, *Macromolecules*, 1999,32,235

SEC elugram:

Sample ID-P19591-2 Before linking reaction

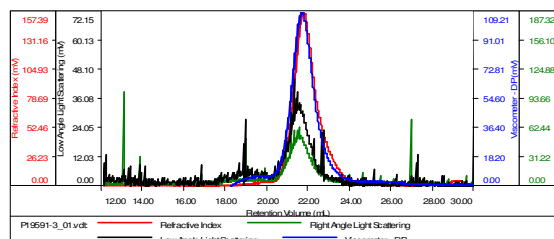
Concentration (mg/mL)	0.5380
Sample dn/dc (mL/g)	0.0000
Method File	PS80K-Nov-2015-0000.vcm
Column Set	3x PL 1113-6300
Solvent	THF



Sample	MW Number Average (Da)	MW Weight Average (Da)	MW at Peak (Da)	Polydispersity	Intrinsic Viscosity (dL/g)
P19591-2_01.vct	21,451	25,496	21,000	1.189	3.0091

Sample ID-P19591-3 after linking reaction

Concentration (mg/mL)	0.8894
Sample dn/dc (mL/g)	0.0000
Method File	PS80K-Nov-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)
P19591-3_01.vct	43,532	53,369	45,314	1.227	4.7445

¹H NMR of Sample:

