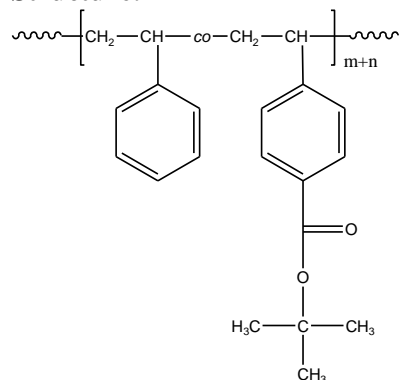


Sample Name: Random Copolymer Poly (styrene-co-4-tert.butyl vinyl benzoate)

Sample #: P16225E-StBuVBA

Structure:



Composition:

PS (mol%) : 60

Mn x 10 ³ PS-co-PtBuVBA	PDI
25.0	1.11

Synthesis Procedure:

The polymer was synthesized by controlled radical polymerization process.

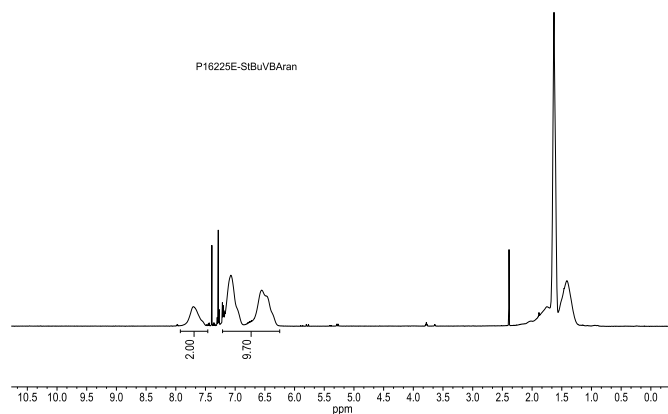
Characterization:

The polymer Poly(S-co-tBuVB) was analyzed by size exclusion chromatography (SEC) to obtain the molecular weight and polydispersity index (PDI). The copolymer composition was calculated from ¹H-NMR spectroscopy by comparing the peak area the aromatic protons of styrene at about 6.66-7.05 ppm with the protons of t-butyl vinylbenzoate at about 6.8-8 ppm that deducts the contribution of the styrene protons.

Solubility:

The polymer is soluble in THF, DMF, CHCl₃ and precipitated out from hexane and water.

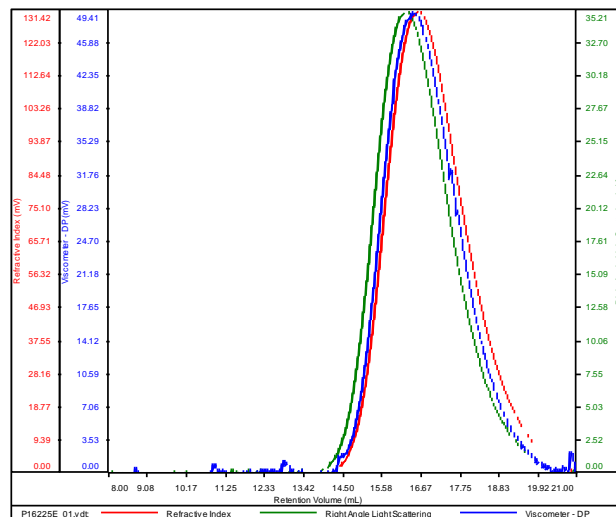
¹H-NMR of the copolymer Poly(S-co-tBuVB):



SEC of the random copolymer Poly(S-co-tBuVBA):

P16225E-StBuVBAran

Conc	8.4575
dn/dc	0.1650
Solvent	DMF w 0.023M LiBr
Flow Rate	0.7000
Method	PS80k_2017-July-05-0000.vcm



Sample	Mn	Mw	Mp	Mw/Mn	IV
P16225E_01.vdi	24,800	27,652	26,752	1.115	1.0000