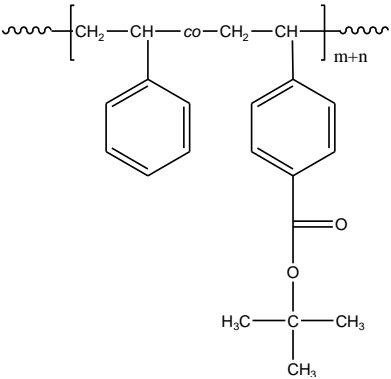


Sample Name: **Random Copolymer Poly (styrene-co-4-tert.butyl vinyl benzoate)**

Sample #: **P16225A-StBuVBA**

Structure:



Composition:

PS (mol%) : 94.0

Mn x 10 ³ PS-co-PtBuVBA	PDI
24.0	1.08

Synthesis Procedure:

The polymer was synthesized by controlled radical polymerization process.

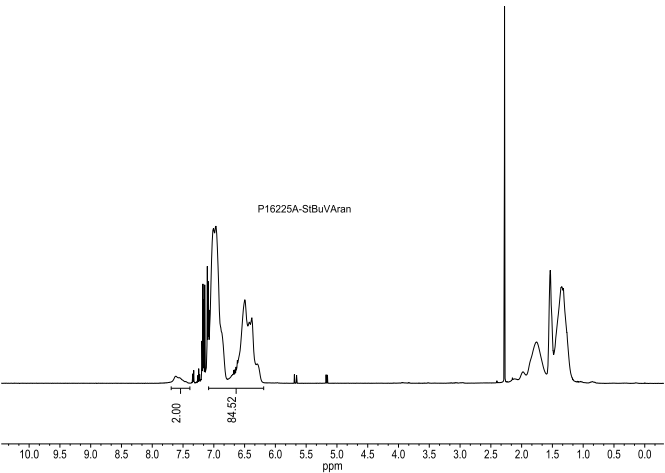
Characterization:

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.

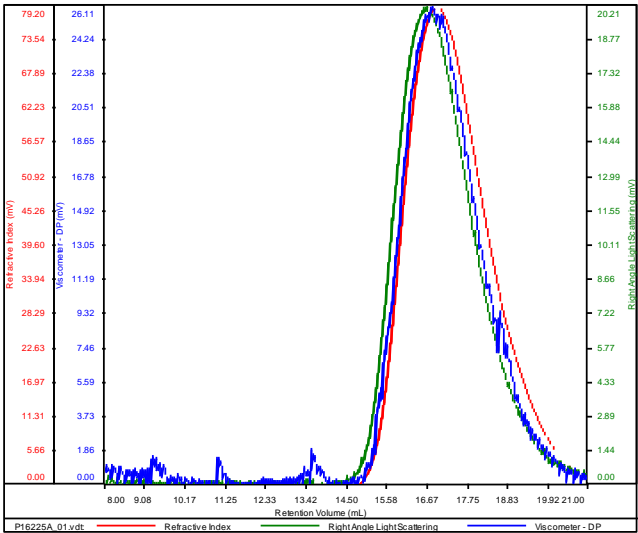
¹H-NMR of the copolymer Poly(S-co-tBuVB):



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

P16225A-StBuVBAran

Conc	5.1146
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
P16225A_01.vdt	23,789	25,692	25,714	1.080	1.0000