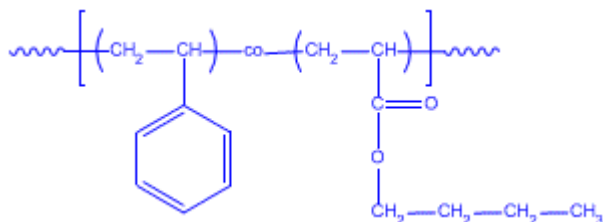


Sample Name:

Random Copolymer Poly(styrene-co-n-butylacrylate)

Sample #: P6406H-SnBAran

Structure:



Composition:

$M_n \times 10^3$	PDI
2.1 (nBA wt%: 7.4)	1.20
T_g for the random copolymer	59°C

Synthesis Procedure:

Random Copolymer is obtained by TEMPO mediated radical polymerization using 1,1-azobis(cyclohexanecarbonitrile) as initiator.

Characterization:

The polymer was analyzed by size exclusion chromatography (SEC) to obtain the molecular weight and polydispersity index (PDI). The copolymer composition was calculated from $^1\text{H-NMR}$ spectroscopy.

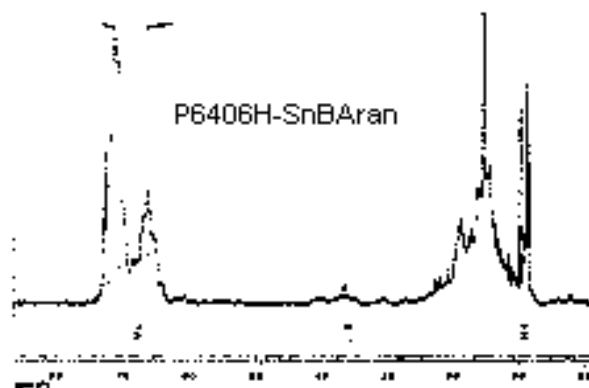
Thermal analysis:

Thermal analysis of the samples was carried out on a TA Q100 differential scanning calorimeter at a heating rate of 20°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).

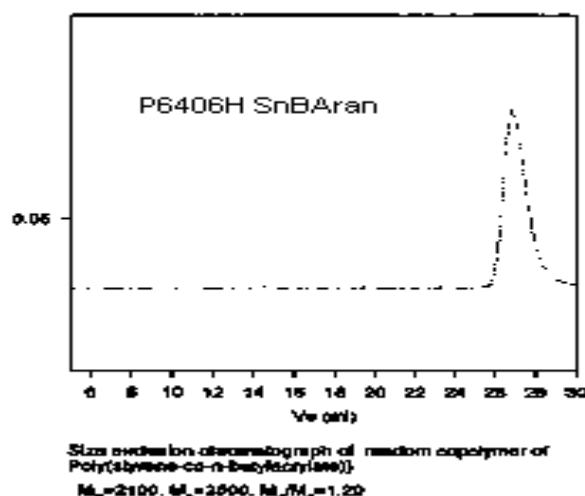
Solubility:

Random Copolymer is soluble in THF, toluene, chloroform and precipitated out from cold hexane (-30°C).

Proton NMR of copolymer:



SEC of the random copolymer:



DSC thermogram for the sample:

