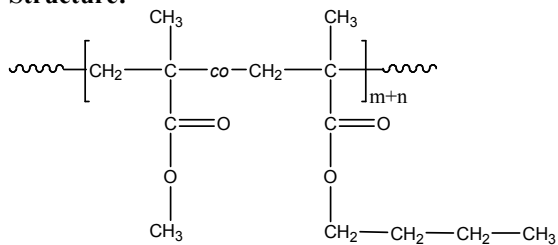


Sample Name: Random Copolymer Poly(methyl methacrylate-co-n-butyl methacrylate)

Sample #: P40434-MMA_nBuMA_r

Structure:



Composition:

Mn x 10 ³ PMMA-co-PnBuMA	PDI
52.5	1.12
T _g of random polymer	62.5 °C mid point
MMA:nBuMA molar ratio	40:60

Synthesis Procedure:

Random Copolymer Poly(methyl methacrylate-co-n-butyl methacrylate) is prepared by anionic polymerization

Characterization:

The polymer was analyzed by size exclusion chromatography (SEC). Copolymer composition was calculated from ¹H-NMR.

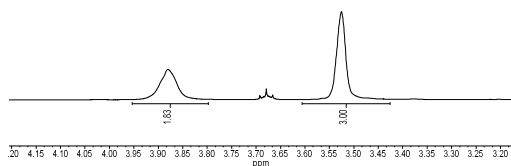
Thermal analysis

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:

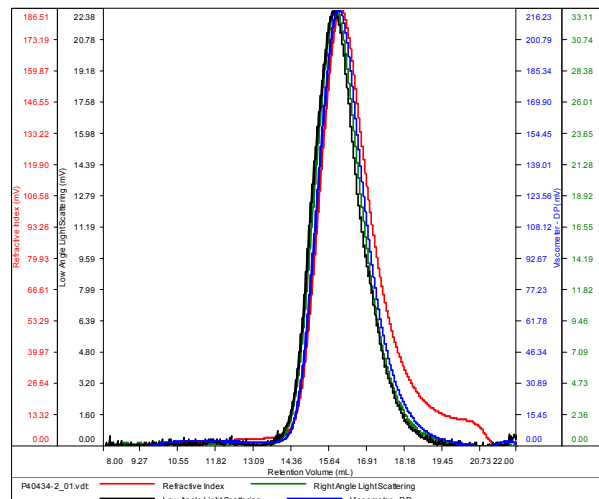
The polymer is soluble in CHCl₃, THF, DMF, and acetone. It precipitated out from methanol and hexane.

¹H-NMR Spectrum of the random copolymer:



SEC of the random copolymer: P40434-MMA_nBuMA_r

Conc (mg/mL)	36.9779
dn/dc (mL/g)	0.0650
Method	PS80k_December-2016-0004.vcm
Solvent	DMF w 0.023M LiBr
Column	PSS



Sample	Mn	Mw	Mp	Mw/Mn	IV
P40434-2_01.vdt	52,542	58,955	61,359	1.122	0.1244

DSC -MMA_nBuMA-1:

