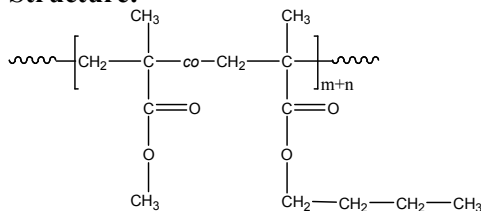


Sample Name: Random Copolymer Poly (methyl methacrylate-co-n-butyl methacrylate)

Sample #: P40437-MMAnBuMAran

Structure:



Composition:

Mn x 10 ³ PMMA-co-PnBuMA	PDI
44.0	1.08
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.

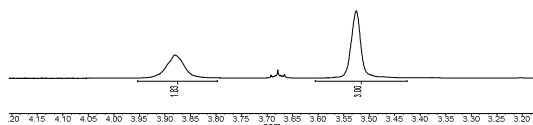
Thermal analysis

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.

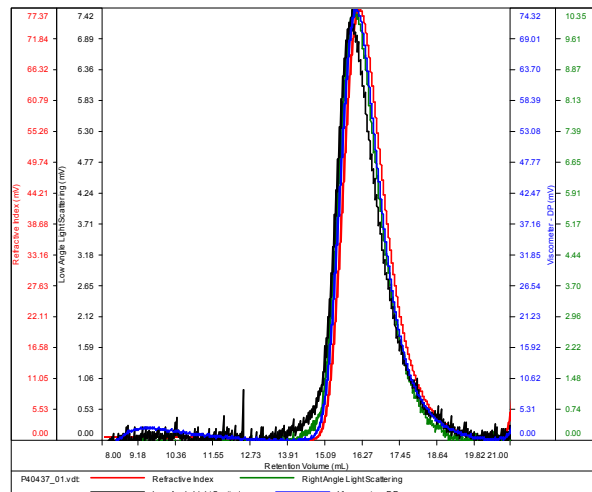
¹H-NMR Spectrum of the random copolymer:



SEC of the random copolymer:

P40437-MMAnBUMAran

Conc (mg/mL)	11.8777
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
P40437_01.vcl	44,116	47,689	44,713	1.081	0.1115

Thermogram for the sample in Duplicate:

Heating rate : 10 °C/minute:

DSC -MMAnBuMA-1:

