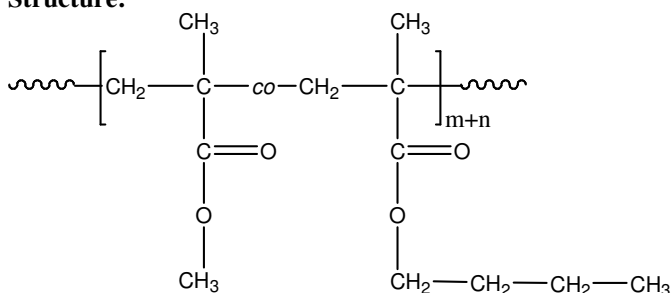


Sample Name:

Random Copolymer Poly(methyl methacrylate-co-n-butyl methacrylate)

Sample #: P11167-MMA_nBuMA_r**Structure:****Composition:**

Mn x 10 ³	PDI
PMMA-co-PnBuMA	
34.3	1.04
T _g of random polymer	59 °C mid point
MMA:nBuMA molar ratio	36:64

Synthesis Procedure:

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

Characterization:

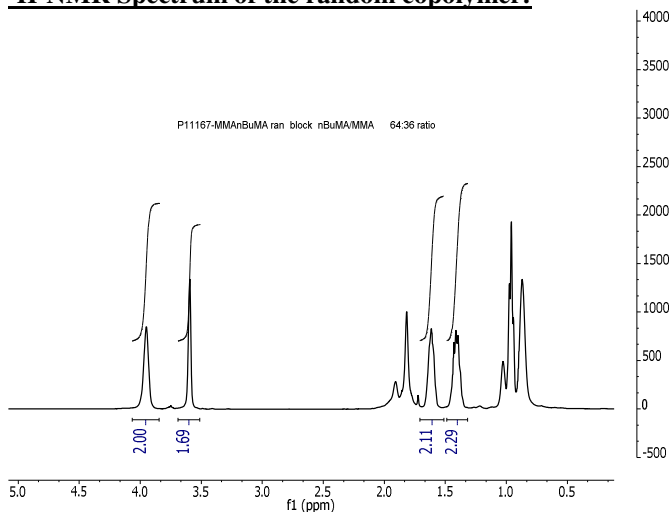
The polymer was analyzed by size exclusion chromatography (SEC). Copolymer composition was calculated from ¹H-NMR.

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).

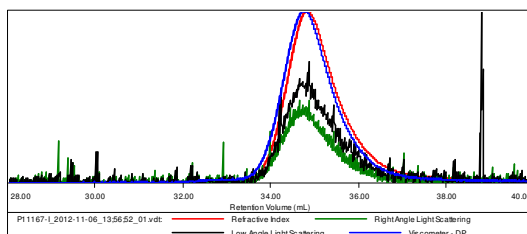
Solubility:

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

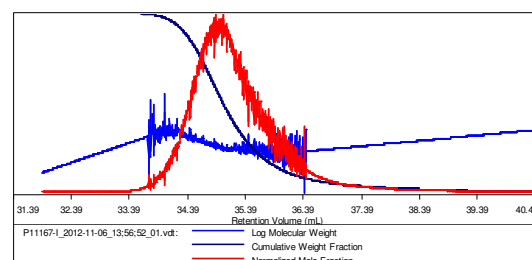
¹H-NMR Spectrum of the random copolymer:**SEC of the random copolymer:**

Sample ID: P11167-I-MMA_nBuMA

Concentration (mg/mL)	10.7943
Sample dn/dc (mL/g)	0.0800
Method File	PS80K-Nov-2012-0000.vcm
Column Set	3x PL 1113-6300
System	System 1



Sample	Mn (Da)	Mw (Da)	Mp (Da)	Mw/Mn	IV (dL/g)
P11167-I_2012-11-06_13:56:52_01.vdt	34,273	35,532	35,245	1.037	0.2164

**Thermogram for the sample in Duplicate:**

Heating rate: 10 °C/minute:

DSC of P11167-1-MMA_nBuMA-1:

