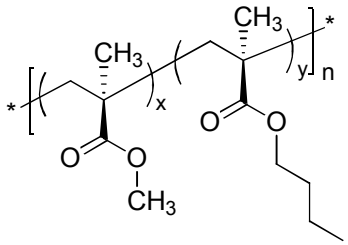
Sample Name: **Poly(methyl methacrylate–*co*–n-butyl methacrylate), *isotactic-rich random copolymer***

Sample # **P40343-MMAnBuMAran-iso**

Structure:



Composition:

Mn x 10^3 (g/mol)	Mw/Mn
70.0	1.5

MMA : nBuMA (mol %)	49 : 51
T_g (^{o}C):	–4 °C
isotactic:	> 92%

Synthesis Procedure:

Poly(methyl methacrylate–*co*–n-butyl methacrylate) random copolymer was prepared by anionic polymerization.

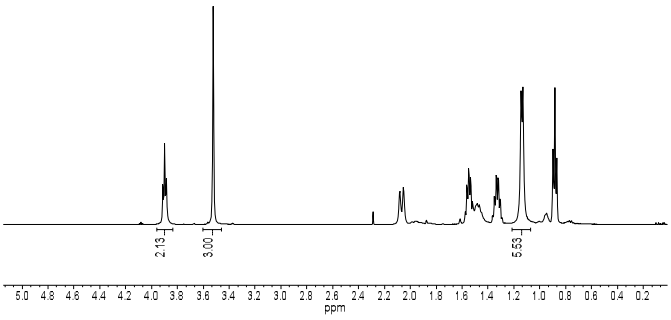
Characterization:

The molecular structure and tacticity of the polymer were confirmed by ^{1}H NMR spectroscopy analysis. The molecular weight and polydispersity index (M_w/M_n) of the polymer were obtained by size exclusion chromatography (SEC) using DMF as an eluent.

Thermal Analysis:

Thermal analysis was performed on TA Instruments Q100 differential scanning calorimeter (DSC) under a nitrogen atmosphere. The glass transition temperature (T_g) of the polymer was measured at a scan rate of 10°C/min shortly after creating thermal history of the sample.

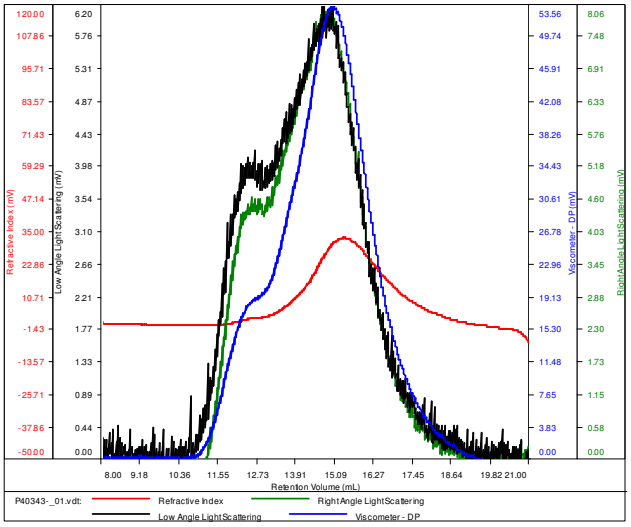
^{1}H NMR (500 MHz, $CDCl_3$) spectrum:



SEC elugram of the polymer in DMF:

P40343-MMAnBUMAran

Conc (mg/mL)	8.0245
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
P40343-_01.vdt	69,958	107,130	86,151	1.531	0.2023

DSC thermogram (2nd heating scan, 10°C/min):