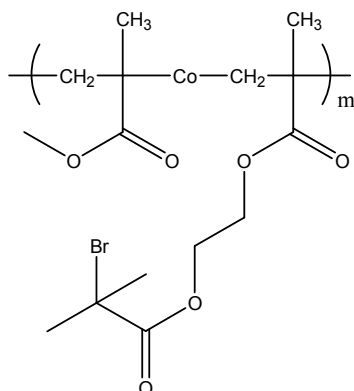


Sample Name:

Poly(methylmethacrylate-co-(isobutryl)ethylmethacrylate)

Sample #: P13068-5-MMABrIBEMArAn

Structure:**Composition:**

Mn × 10 ³ MMA-Co-BrIBEMA	PDI
19.1	6.67
Mol % BrIBEMA: 42%	Synd:56% Hetero:22% Iso:22%
T _g for the polymer	63 °C

Synthesis Procedure:

Poly(Methylmethacrylate-Co-2-bromoisobutryl ethylmethacrylate) random copolymer was synthesized by Reversible Addition-Fragmentation chain-transfer (RAFT).

SEC analysis of the obtained block copolymer in THF was carried out in THF and triethyl amine as eluent. The final random copolymer composition was confirmed by ¹H-NMR spectroscopy in CdCl₂ by comparing the peak area of the methyl ester protons at 3.6 ppm against ethyl methacrylate at 4.2-4.17 ppm. Block copolymer PDI was determined by SEC.

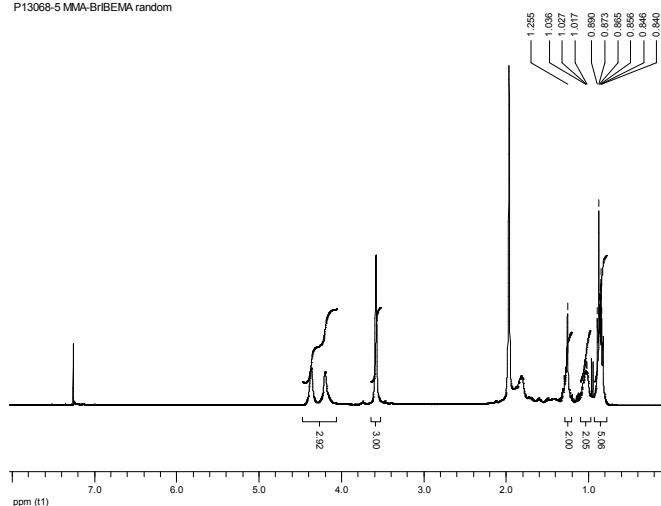
Thermal analysis:

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).

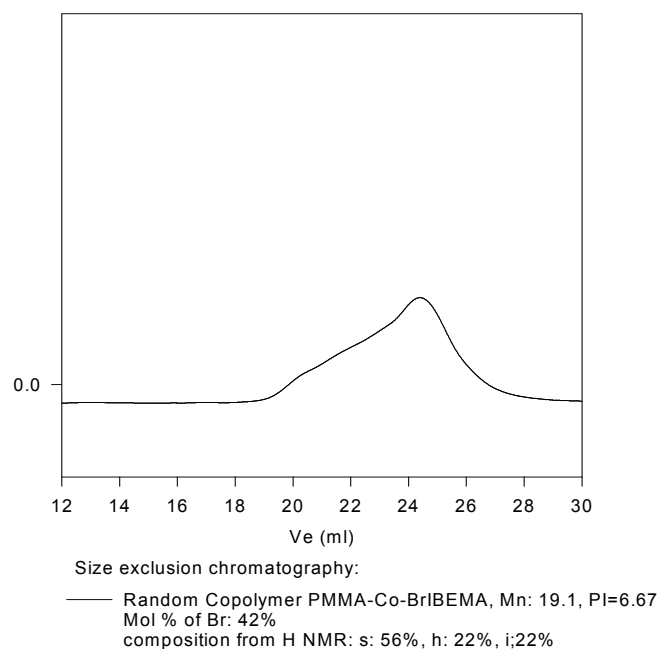
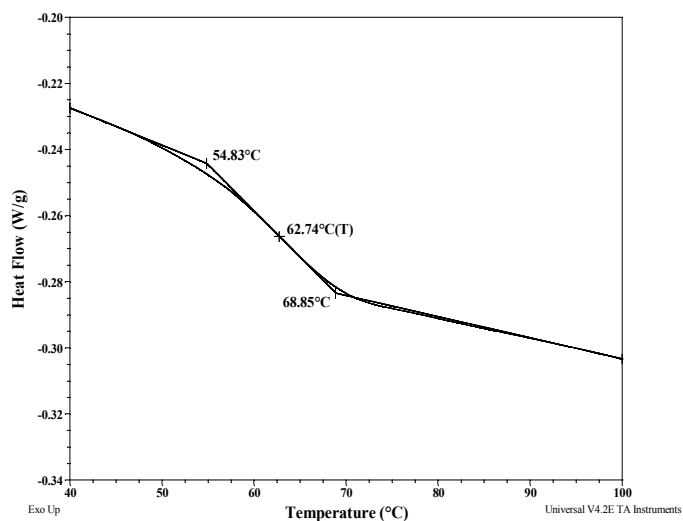
Solubility:

Polymer is soluble in THF and CHCl₃.

P13068-5 MMA-BrIBEMA random

**SEC of the block copolymer:**

P13068-5-MMA-Co-BrIBEMA

**DSC thermogram for the polymer:****¹H-NMR Spectrum of the block copolymer :**