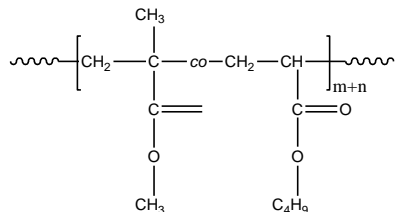


Sample Name:

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

Sample #: P1704-MMA_nBuA_r**Structure:****Composition:**

PMMA (mol%) : 20

Mn x 10 ³ PMMA-co-PnBA	PDI
102.9	1.51
T _g of random polymer	-21°C

Synthesis Procedure:

Random Copolymer Poly(styrene-co-methyl methacrylate) is prepared by either anionic or group transfer or radical polymerization of methyl methacrylate and n-butyl acrylate.

Characterization:

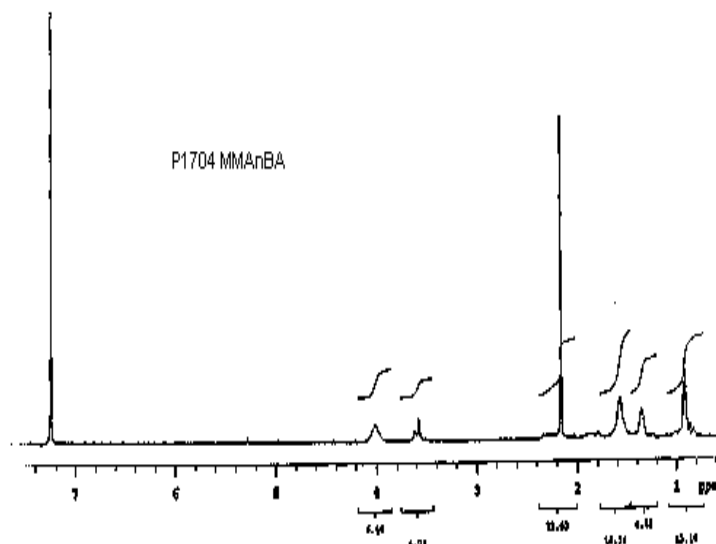
The polymer was analyzed by size exclusion chromatography (SEC) to obtain the molecular weight and polydispersity index (PDI). The copolymer composition was calculated from ¹H-NMR spectroscopy.

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, toluene and precipitated out from methanol and water.

¹H-NMR Spectrum of the random copolymer:**Thermogram for the sample:**