

Sample Name:

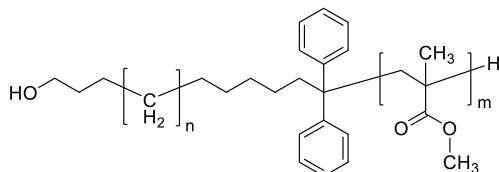
Poly(methylene-*block*-methyl methacrylate)

Synonym:

Poly(ethylene-*block*-methyl methacrylate)

Sample # **P42295A-M-MMA**

Structure:

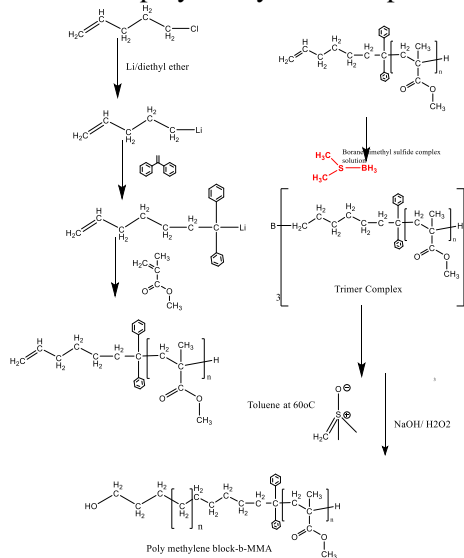


Composition:

$M_n \times 10^3$ (g/mol) [M- <i>b</i> -MMA]	M_w/M_n
0.30-b-9.0	1.10

Synthesis Procedure:

Scheme of polymer synthesis is presented below:



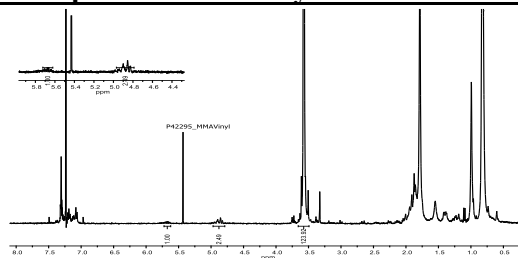
Characterization:

The product was analyzed using proton NMR, size exclusion chromatography (SEC), and DSC methods.

Solubility:

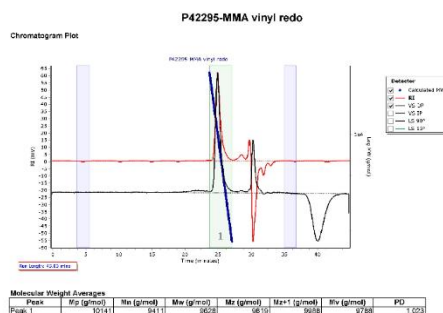
Polymer is soluble in hot toluene and in THF becomes opaque.

¹H NMR spectrum of the allyl terminated PMMA:

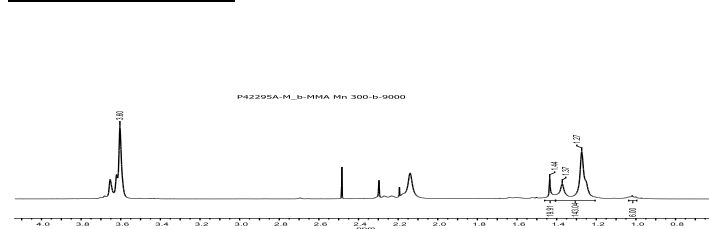


SEC elugram of the allyl terminated PMMA:

Agilent GPC/SEC Software



¹H NMR of the diblock copolymer in chlorobenzene-*d*₅:



Due to the polymer crystallization at room temperature, a fraction of polymethylene could be detected by proton NMR of the poly(MMA-*b*-methylene) in chlorobenzene. The diblock copolymer composition was calculated based on the yield of polymer after reaction with sulfur ylides.

SEC elugram of the polymer in Toluene at 60 °C:

Agilent GPC/SEC Software

