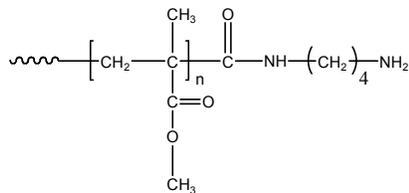


Sample Name:

Amino Terminated Poly(methyl methacrylate)
– Syndiotactic rich (> 78 %)

Sample #: P3523-MMANH₂

Structure:

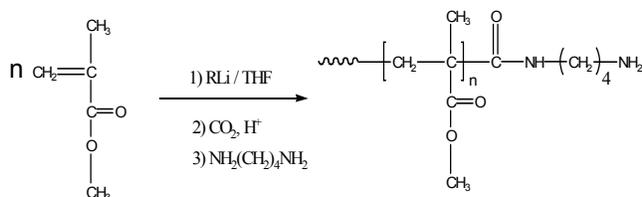


Composition:

M _n x 10 ³	PDI
30.0	1.80
NH ₂ functionality	>90%
T _g for the polymer	128°C

Synthesis Procedure:

Amino terminated polymethylmethacrylate is obtained by the chemical modification of the carboxylic acid terminated PMMA. The scheme of the polymerization reaction is illustrated below:



Characterization:

The molecular weight and polydispersity index of this polymer were determined by size exclusion chromatography (SEC) using a Varian liquid chromatograph equipped with a UV and refractive index detector before the addition of the CO₂H function. Transesterification was verified by FT-IR to verify the disappearance of the t-butyl group.

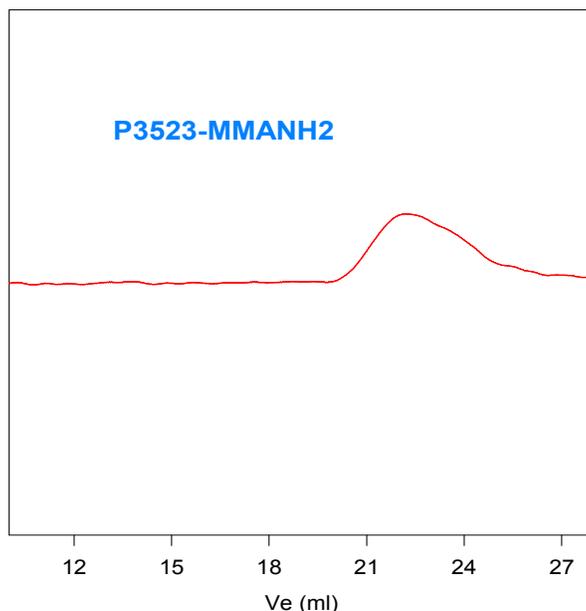
Thermal analysis:

Thermal analysis of the samples was carried out using a differential scanning calorimeter (TA Q100) at a heating rate of 10°C/min. The inflection glass transition temperature (T_g) has been considered.

Solubility:

The polymer is soluble in CHCl₃, THF and dioxane.

SEC of Sample:



Poly(methyl methacrylate) End-capped with 1-Naphthyl Isocyanate.
Size Exclusion Chromatography of Amino Terminated
M_n=30000 M_w=54000, PI=1.8 functionality >0.90% (by titration)

DSC thermogram for the sample:

