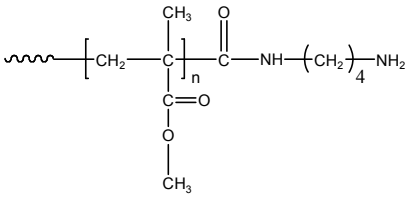
Sample Name:
Amino Terminated Poly(methyl methacrylate) – Syndiotacitc rich (>78 %)

Sample #: P5115-MMANH$_2$

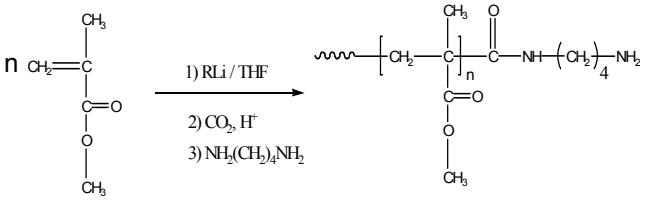
Structure:



Composition:

Mn x 10^3	PDI
55.0	1.10
NH_2 functionality	>90%
T_g for the polymer	131°C

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

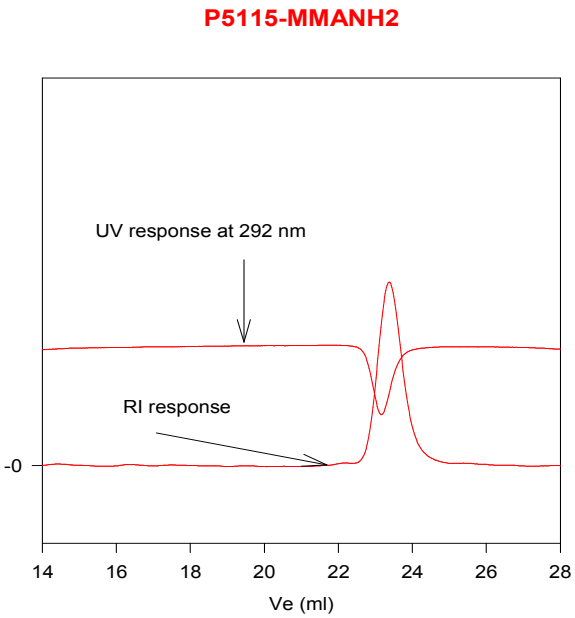


Characterization:
The molecular weight and polydispersity index of this polymer were determined by size exclusion chromatography (SEC) using a Varian liquid chromatograph equipped with a UV and refractive index detector before the addition of the CO_2H function. Transesterification was verified by FT-IR 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 $CHCl_3$, THF and dioxane.

SEC of Sample:



Size exclusion chromatography of Amino Terminated poly methylmethacrylate after end capping with 1-naphthyl isocynate:

Mn:55000, M_w=60500, PI=1.10, functionality>0.98

DSC thermogram for the sample: