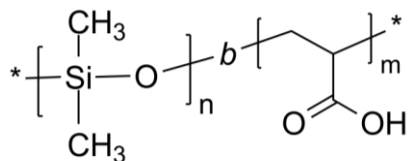


Sample Name: Poly(dimethylsiloxane)-b-poly(acrylic acid)

Sample #: P43383A-DMSAA

Structure:

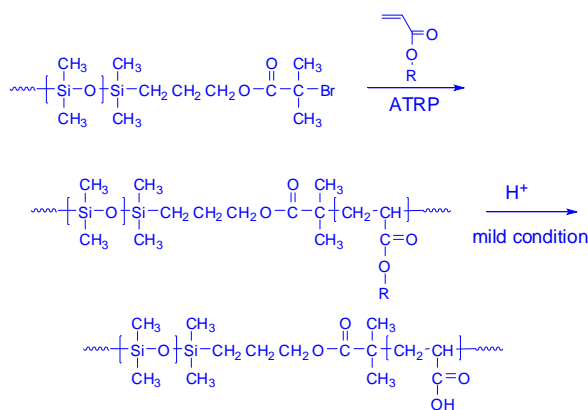


Composition:

Mn $\times 10^3$ PDMS-b-PAA	PDI
8.0-b-8.0	1.3

Synthesis Procedure:

The reaction scheme is shown below:



Characterization:

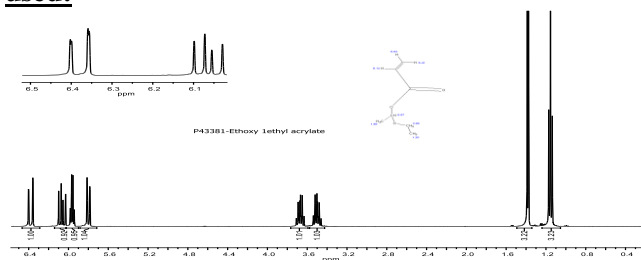
The results from NMR and FTIR are comparable.

Note: The protected polyacrylic acid may cause the SEC profile broadening. We still claim the Mw/Mn as the apparent molecular weight. Real Mw/Mn should be narrower.

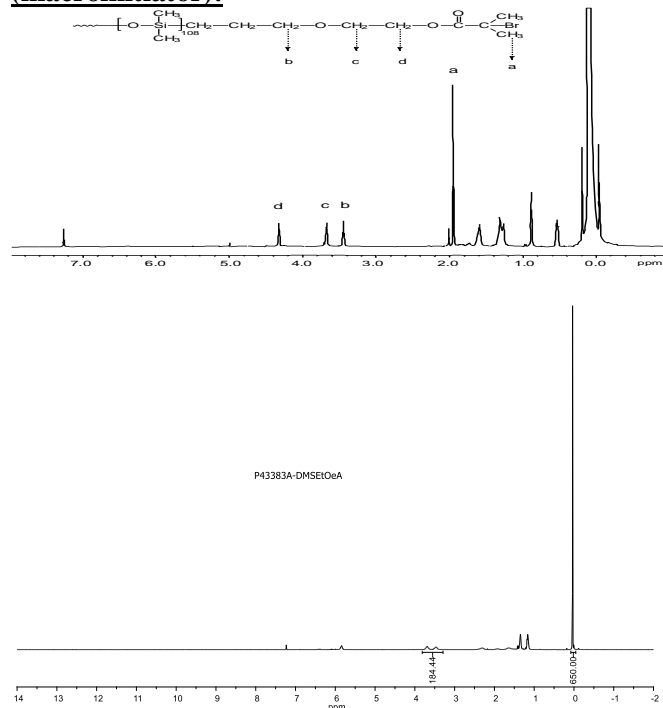
Solubility:

Poly(dimethyl siloxane -b- acrylic acid) is soluble in THF. It is not reprecipitated well in methanol or hexanes because of its amphiphilic characters.

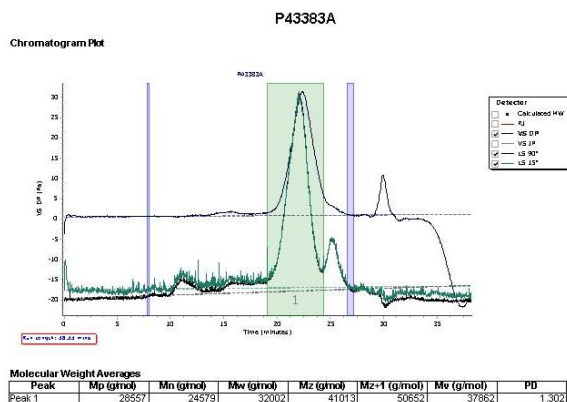
H-NMR Spectrum of the Monomer high purity used:



¹H-NMR Spectrum of the DMS-Br (macroinitiator):



SEC profile of the block copolymer: DMS-b-EtoEA



Peak	Mp (g/mol)	Mn (g/mol)	Mw (g/mol)	Mz (g/mol)	Mz+1 (g/mol)	Mw (g/mol)	PDI
Peak 1	28557	24579	32002	41013	50652	37662	1.302