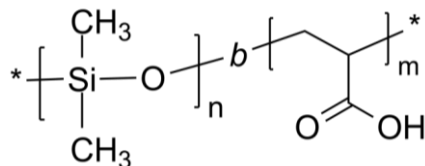


Sample Name:

Poly(dimethylsiloxane)-b-poly(acrylic acid)

Sample #: **P43383C-DMSAA**

Structure:

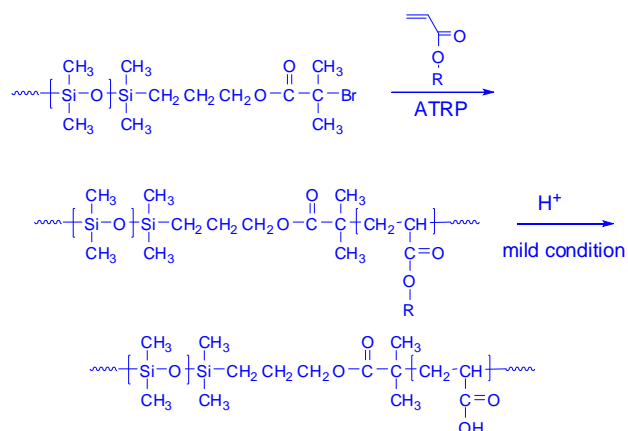


Composition:

Mn x 10 ³ PDMS-b-PAA	PDI
8.0-b-2.0	1.4

Synthesis Procedure:

Poly(dimethyl siloxane -b- acrylic acid) was prepared by living anionic polymerization of hexamethyl cyclotrisiloxane followed by controlled radical polymerization of Ethoxy ethyl acrylate. The reaction scheme is shown below:



Characterization:

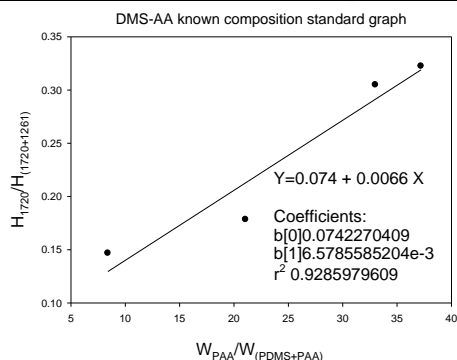
The product was characterized by size exclusion chromatography (SEC) and ¹H NMR data analysis.

Note: The calculation of the composition bases on the FTIR standard fit line obtained from polymers that have known composition.

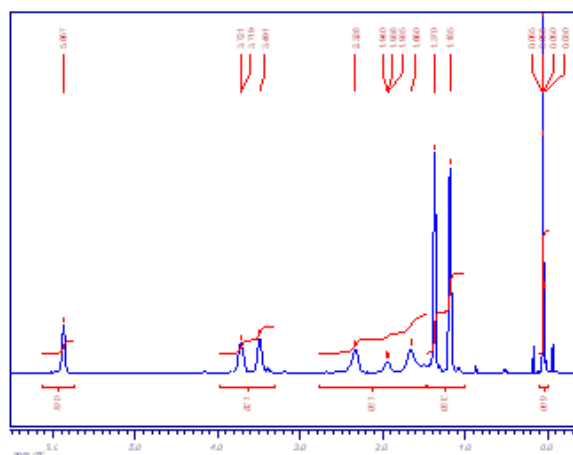
Solubility:

Poly(dimethyl siloxane -b- acrylic acid) is soluble in THF, and not soluble in MeOH, ether, hexane.

FTIR standard line for composition calculation:

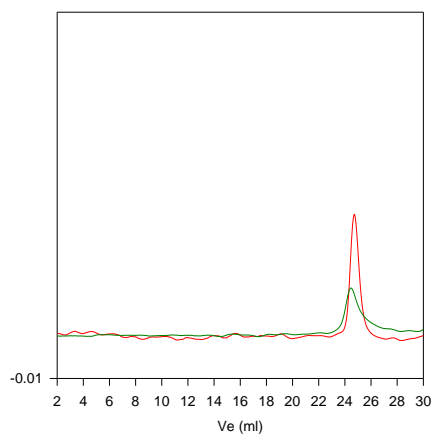


¹H-NMR Spectrum of the block copolymer:



SEC profile of the DMSEtEA:

P43383C-DMSEtOEa



Size exclusion chromatography of poly(DMS-b-acrylate):

— Polydimethylsiloxane, M_n=8000, M_w=8600, PI=1.08

— Block Copolymer PDMS(8000)-b-PtEOEA(3,000), PI=1.42