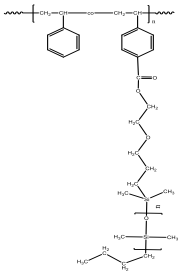
Sample Name:
Poly(styrene)-graft-poly (dimethyl siloxane), grafting on backbone

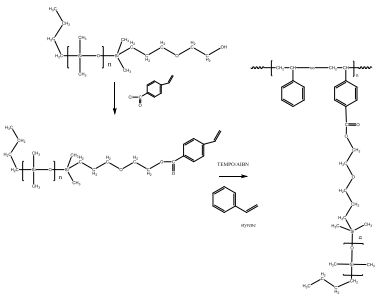
Sample #: **P42482B-SDMScomb**

Structure:



Mn x 10^3 Total	Mn x 10^3 PDMS macromonomer	Mw/Mn Comb	# of PDMS Branches
26.0	1	1.04	6
Styrene mole%=75.0			

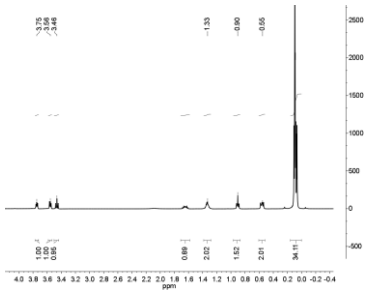
Synthesis:
The following reaction scheme shows how the product was prepared.



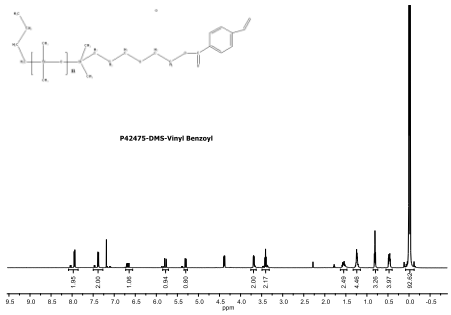
Characterization:
The product was characterized by size exclusion chromatography (SEC) and ^{1}H NMR.

Solubility:
Polymer is soluble in THF, chloroform, and toluene. It precipitates from methanol.

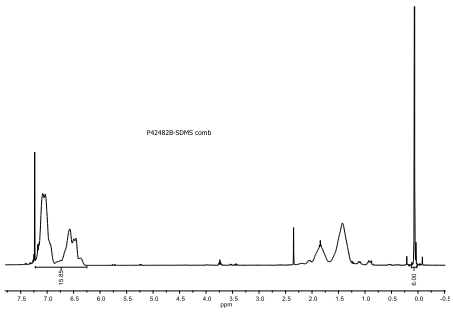
^{1}H NMR spectrum of DMSOH Carbinol:



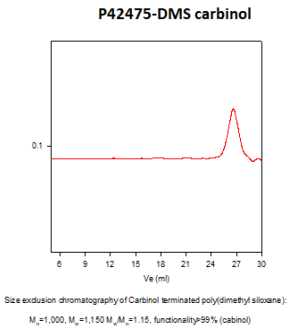
^{1}H NMR spectrum of PDMS Macromonomer used in the synthesis: Lot# P42475-DMS-VinylBenzoyl Mn of 1000:



^{1}H NMR spectrum of comb:



SEC elugram of P42475-DMS-Carbinol:



Size exclusion chromatography of Carbinol terminated poly(dimethyl siloxane):
M_n=1,000, M_w=1,150 M_w/M_n=1.15, functionality>99% (cabinol)

SEC elugram of the sample: