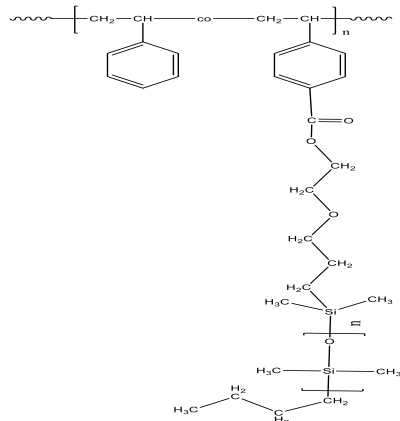


Sample Name:

**Poly(styrene)-graft-poly(dimethyl siloxane),
grafting on backbone**

Sample #: **P42482C-SDMScomb**

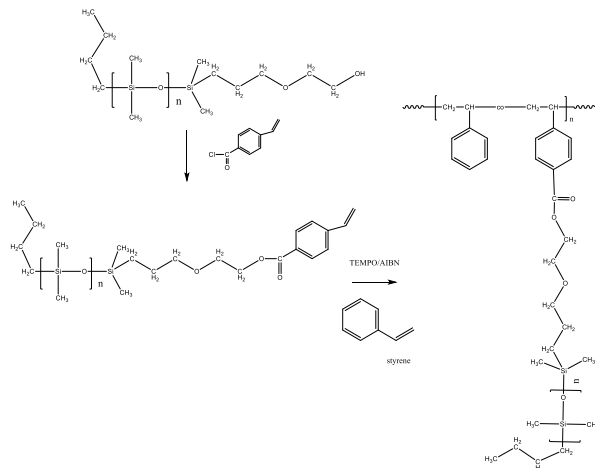
Structure:



<u>Mn x 10³</u>	<u>Mn x 10³</u>	<u>Mw/Mn</u>	<u># of PDMS</u>
<u>Total</u>	<u>PDMS macromonomer</u>	<u>Comb</u>	<u>Branches</u>
10.0	1	1.42	2
Styrene %: ~97 (molar) / ~80 (weight)			

Synthesis:

The following reaction scheme shows how the product was prepared.



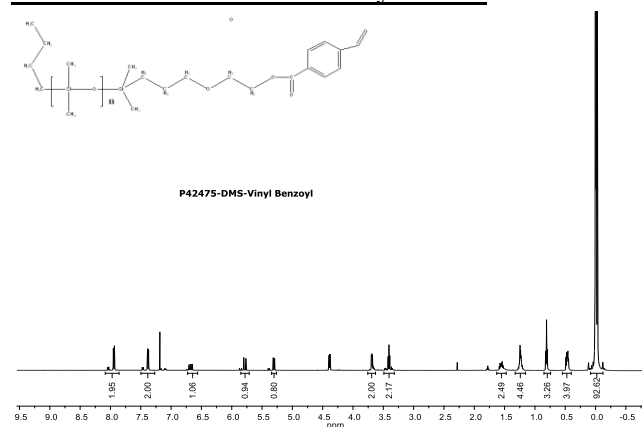
Characterization:

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

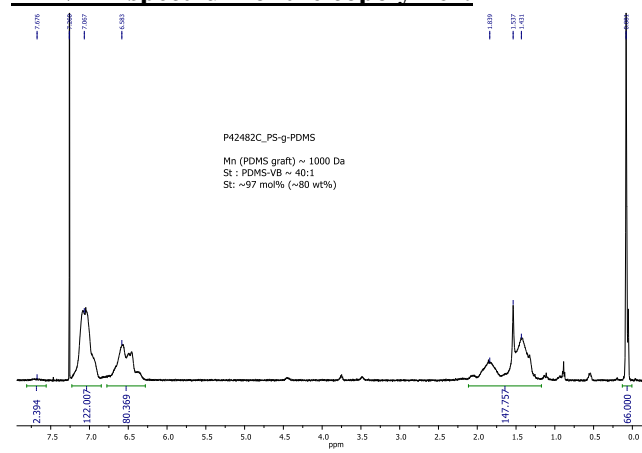
Solubility:

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

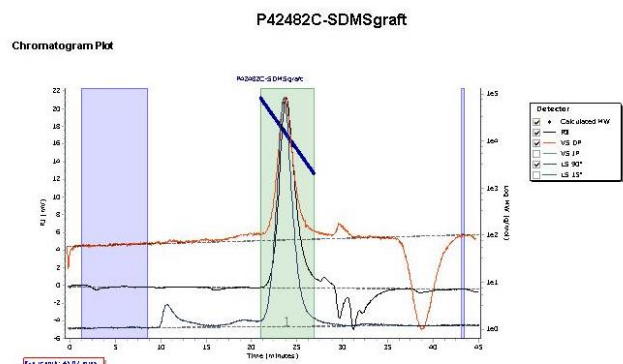
**¹H NMR spectrum of PDMS-VinylBenzoyl
Macromonomer used in the synthesis:**



¹H NMR spectrum of the copolymer:



SEC elugram of the sample:



Molecular Weight Averages						
Peak	Mp (g/mol)	Mn (g/mol)	Mw (g/mol)	Mz (g/mol)	Mz+1 (g/mol)	Mw (g/mol)
Peak 1	14217	10051	14264	19001	24822	17219
PD						
1.419						

Processing Parameters

Method	RI
Concentration Detector Used in Analysis	100.00
Injection volume (μL)	1.00
Flow rate (mL/min)	Calculate Sample Concentration from Entered Sample Properties
Entered dilv (mL/g)	0.186

Last modified by agilent2 at 4:40:58 PM on October 27, 2021