



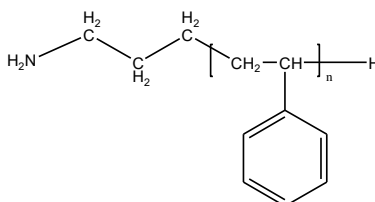
Product Profile

Identification

Product Name: Amino Terminated Polystyrene

Product Lot Number: P40055-SNH2

Chemical Architecture:

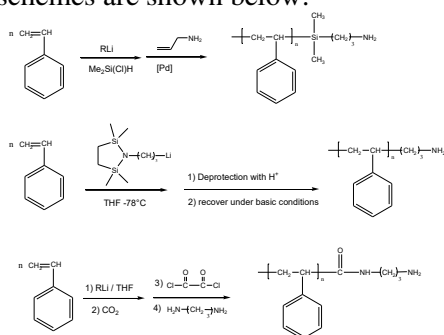


Composition:

Mn (g/mole)	5,500
Mw (g/mole)	6,500
Mw/Mn	1.15

Method of Synthesis

ω -amino terminated polystyrene was synthesized by anionic living polymerization with different end-grouping strategies. The reaction schemes are shown below:



Solubility in different solvents:

THF	√	Methanol	X
CHCl ₃	√	Hexane	X
Toluene	√		

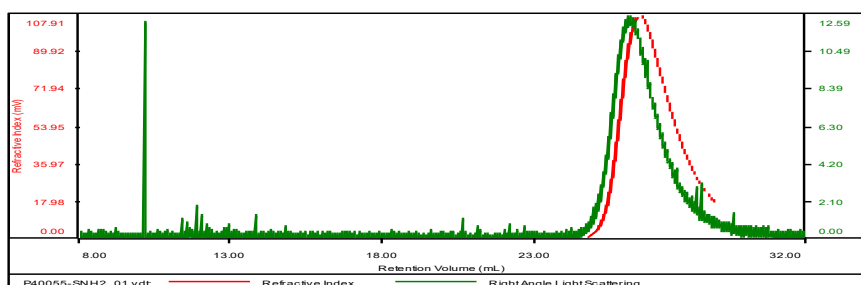
Validation of Architecture

A. Gel Permeation Chromatography (GPC), SEC Profile:

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. However, amino terminated polystyrene was found to interact with chromatography columns and therefore the amino group was protected by reaction with 1-naphthyl isocyanate before GPC analysis. Removal of the protecting group was confirmed by UV spectroscopy and the degree of functionality was confirmed by titration with HClO₄ using crystal violet as the indicator.

Sample ID: P40055-SNH2

Concentration (mg/mL)	4.0330
Sample dn/dc (mL/g)	0.1850
Method File	PS80K-30JUNE2016-0000.vcm
Column Set	3x PL 1113-6300
Solvent	THF



Sample	Mn (Da)	Mw (Da)	Mw/Mn	IV (dL/g)	Mp (Da)
P40055-SNH2_01.vdt	5,614	6,496	1.157	0.0829	6,966