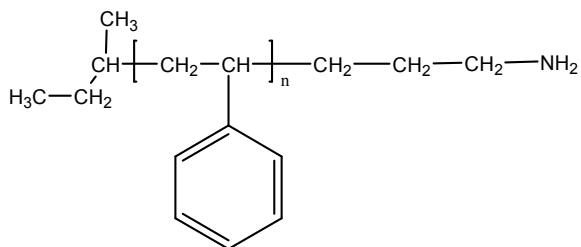


Sample Name: Amino Terminated Polystyrene

Sample #: P40302-SNH2

**Structure:**



**Composition:**

| $M_n \times 10^3$ | PDI  |
|-------------------|------|
| 2.5               | 1.11 |

**Synthesis Procedure:**

$\alpha$ -amino terminated polystyrene was synthesized by anionic living polymerization.

**Characterization:**

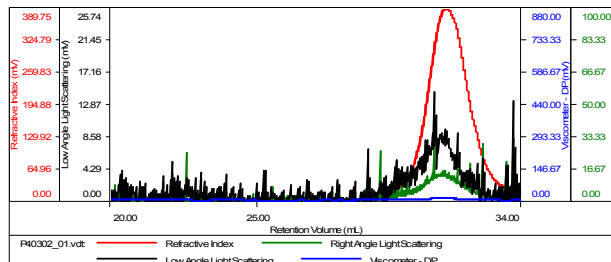
The molecular weight and polydispersity index of this polymer were determined by size exclusion chromatography (SEC) using a Varian liquid chromatograph equipped with a UV and refractive index detector. However, amino terminated polystyrene was found to interact with chromatography columns and therefore 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  $HClO_4$  using crystal violet as the indicator.

**Solubility:** Polymer is soluble in THF, Chloroform, and toluene. It precipitated out from methanol and hexane.

**SEC elugram of Sample:**

**P40302-SNH2**

|                       |                          |
|-----------------------|--------------------------|
| Concentration (mg/mL) | 9.5527                   |
| Sample dn/dc (mL/g)   | 0.1850                   |
| Method File           | PS80K-Nov2016-6-0000.vcm |
| Column Set            | 3x PL 1113-6300          |
| Solvent               | THF                      |



| Sample        | Mn (Da) | Mw (Da) | Mw/Mn | IV (dL/g) | Mp (Da) |
|---------------|---------|---------|-------|-----------|---------|
| P40302_01.vdt | 2,388   | 2,663   | 1.115 | 0.0672    | 2,283   |

**H NMR Spectrum of the Sample:**

