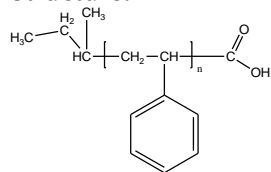


Sample Name:

**Mono Carboxy Terminated Polystyrene**

Sample #: **P19291-SCOOH**

**Structure:**



**Composition:**

Mn x 10 <sup>3</sup>	PDI
4.0	1.1
T <sub>g</sub> (°C)	65
Functionality %	98

**Synthesis Procedure:**

Carboxy Terminated Poly (styrene) was prepared by anionic living polymerization of styrene in THF followed by termination with dried CO<sub>2</sub>.

**Characterization:**

The molecular weight and polydispersity index of this polymer were determined before addition of the CO<sub>2</sub>H function, by size exclusion chromatography (SEC) using a Varian liquid chromatograph equipped with a UV and refractive index detector. Polymer functionality was determined by titration with NaOH using phenolphthalein as the indicator.

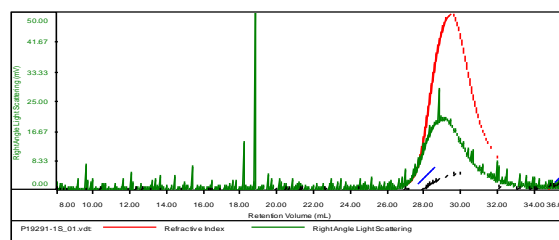
**Thermal analysis:**

Thermal analysis of the samples was carried out using a differential scanning calorimeter (TA Q100) at a heating rate of 10°C/min. The inflection glass transition temperature (T<sub>g</sub>) has been considered.

**Solubility:** Polymer is soluble in toluene, THF, CHCl<sub>3</sub> and can be precipitated in water and cold methanol.

**SEC of Sample:**

Sample ID: P19291-S	
Concentration (mg/mL)	6.1055
Sample dn/dc (mL/g)	0.1850
Method File	PS80K-April29-2015-0000.vcm
Column Set	3x PL 1113-6300
Solvent	THF



Sample	MW Number Average (Da)	MW Weight Average (Da)	MW at Peak (Da)	Polydispersity	Intrinsic Viscosity (dL/g)
P19291-1S_01.vdt	3,922	4,311	4,206	1.099	0.2100

**DSC curve of Sample:**

