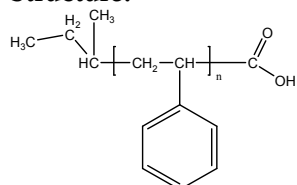


Sample Name:

Mono Carboxy Terminated Polystyrene

Sample #: **P19290-SCOOH**

Structure:



Composition:

$M_n \times 10^3$	PDI
3.0	1.05
T_g ($^{\circ}C$)	56
Functionality %	98

Synthesis Procedure:

Carboxy Terminated Poly (styrene) was prepared by anionic living polymerization of styrene in THF followed by termination with dried CO_2 .

Characterization:

The molecular weight and polydispersity index of this polymer were determined before addition of the CO_2H 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:

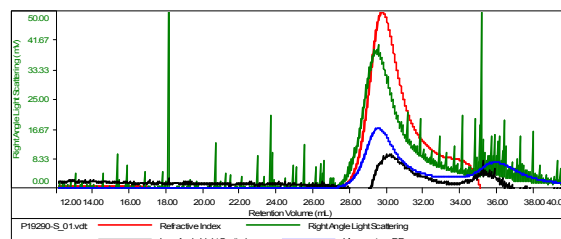
Thermal analysis of the samples was carried out using a differential scanning calorimeter (TA Q100) at a heating rate of $10^{\circ}C/min$. The inflection glass transition temperature (T_g) has been considered.

Solubility: Polymer is soluble in toluene, THF, $CHCl_3$ and can be precipitated in water and cold methanol.

SEC of Sample:

P19290-1-S

Concentration (mg/mL)	14.8367
Sample ch/dc (mL/g)	0.1850
Method File	PS80K-April 29-2015-0000.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)
P19290-S_01.vdt	2,968	3,116	3,041	1.050	0.1776

DSC curve of Sample:

