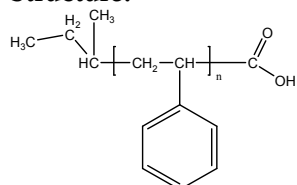


Sample Name:

Mono Carboxy Terminated Polystyrene

Sample #: **P19288-SCOOH**

Structure:



Composition:

Mn x 10 ³	PDI
2.3	1.06
T _g (°C)	83
Functionality %	98

Synthesis Procedure:

Carboxy Terminated Poly (styrene) was prepared by anionic living polymerization of styrene in THF followed by termination with dried CO₂.

Characterization:

The molecular weight and polydispersity index of this polymer were determined before addition of the CO₂H 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:

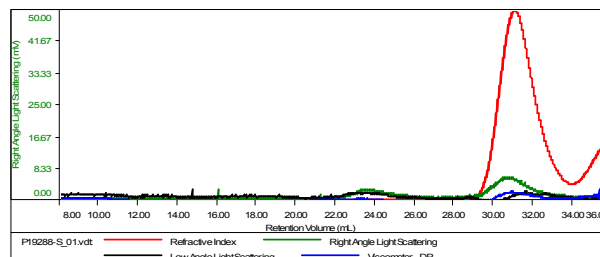
Thermal analysis of the samples was carried out using a differential scanning calorimeter (TA Q100) at a heating rate of 10°C/min. The inflection glass transition temperature (T_g) has been considered.

Solubility: Polymer is soluble in toluene, THF, CHCl₃ and can be precipitated in water and cold methanol.

SEC of Sample:

Sample ID: P19288-S before terminating with CO₂

Concentration (mg/mL)	2.4395
Sample chr/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)
P19288-S_01.vdt	2,346	2,481	2,263	1.058	0.0828

DSC curve of Sample:

