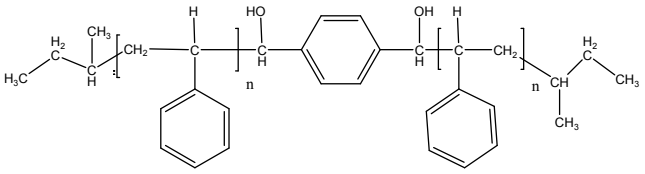
## Sample Name:

**Dihydroxy group in the center of Polystyrene**

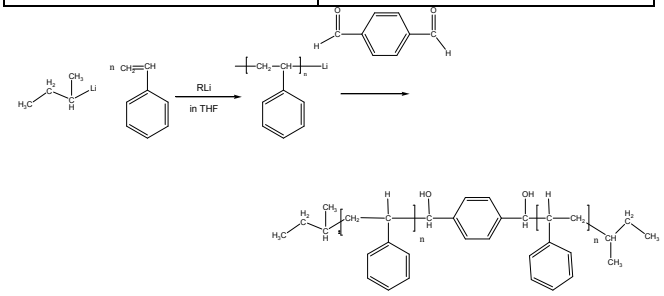
Sample #: **P18121 -S(2OH)x**

## Structure:



## Composition:

| Mn x $10^3$ | PDI |
|---|---|
| 10.0 | 1.18 |
| $T_g$ ($^o$C) | 98 oC |

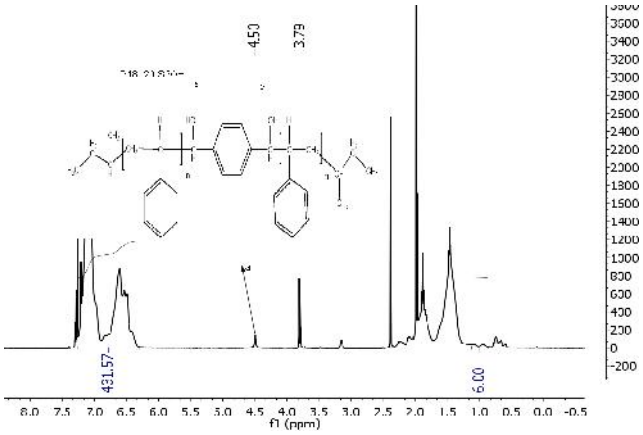



## Characterization:

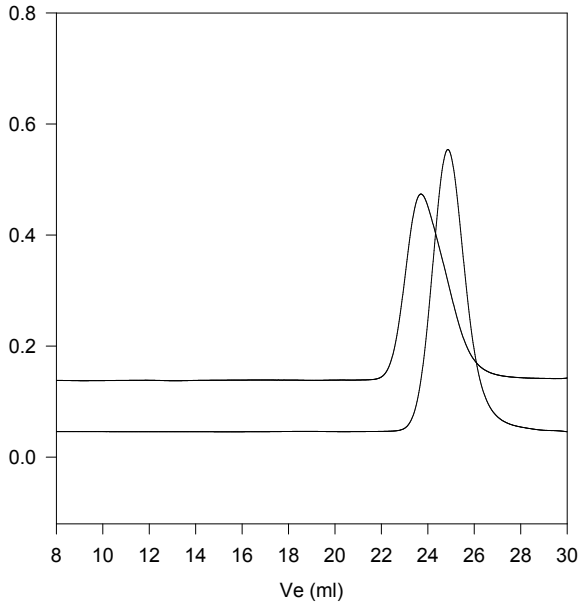
The molecular weight and polydispersity index of this polymer were determined by size exclusion chromatography (SEC) using a Varian liquid chromatograph equipped with a UV and refractive index detector.

## Thermal analysis:

Thermal analysis of the samples was carried out on a TA Q100 differential scanning calorimeter at a heating rate of 10$^o$C/min.The midpoint of the slope change of the heat flow plot of the second heating scan was considered as the glass transition temperature ($T_g$).




## SEC for the functional polymer:




Size exclusion chromatography of dihydroxy in the center polystyrene:

$M_n$=5,000, $M_w$=6,000, PI=1.2

After linking reaction : Mn 10,000 Mw/Mn: 1.2 functionality: >1.98%