

Sample Name:

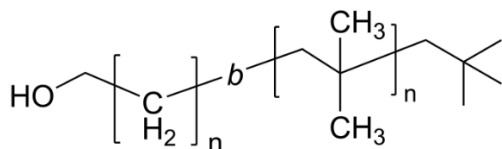
Poly(methylene)-b-poly(isobutylene)

Synonym:

Polyethylene-b-polyisobutylene

Sample # **P42315A-MIB**

Structure:

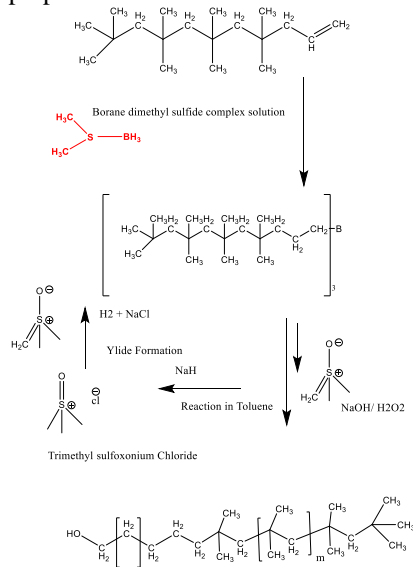


Composition:

| | |
|---------------------------------------|-----------|
| $M_n \times 10^3$ (g/mol) [M-b-IB] | M_w/M_n |
| 0.50-b-8.0 | 1.04 |

Synthesis Procedure:

The following reaction scheme shows how the product was prepared:



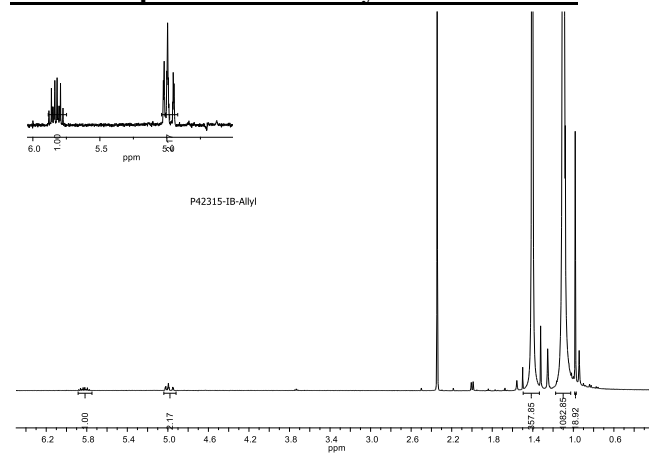
Characterization:

The product was analyzed using proton NMR, size exclusion chromatography (SEC), and DSC methods.

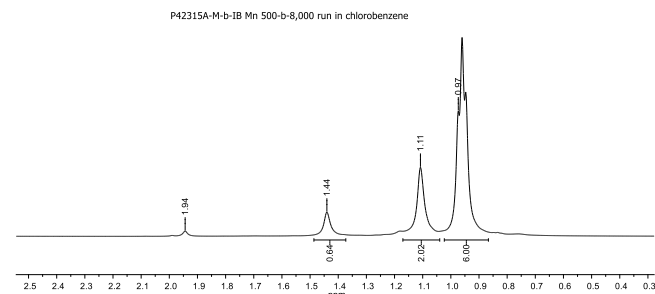
Solubility:

Polymer is soluble in hot toluene and in THF it becomes opaque at room temperature and settle down while by heating it gives clear solution.

^1H NMR spectrum of the allyl terminated IB:

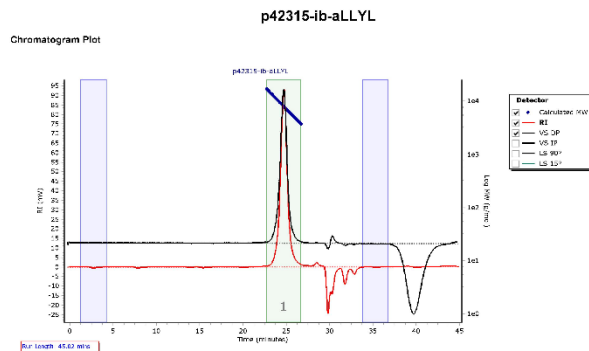


^1H NMR of the diblock copolymer in chlorobenzene- d_5 :



SEC elugram of the allyl terminated PIB:

Agilent GPC/SEC Software



| Peak | Mp (g/mol) | Mn (g/mol) | Mw (g/mol) | Mz (g/mol) | Mz+1 (g/mol) | Mz+2 (g/mol) | PD |
|--------|------------|------------|------------|------------|--------------|--------------|-------|
| Peak 1 | 7914 | 7780 | 8072 | 8367 | 8684 | 8991 | 1.038 |