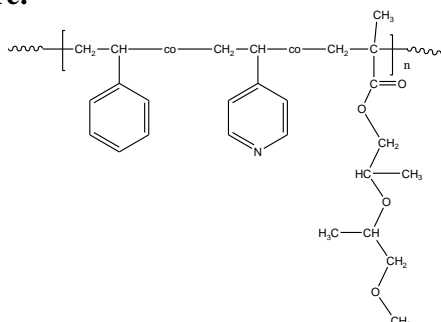


**Sample Name:** Random Copolymer Poly (styrene-co-4-vinylpyridine –co-propylene glycol methyl ether methacrylate)

**Sample #:** P40987-S4VPPGMAran

**Structure:**



**Composition:**

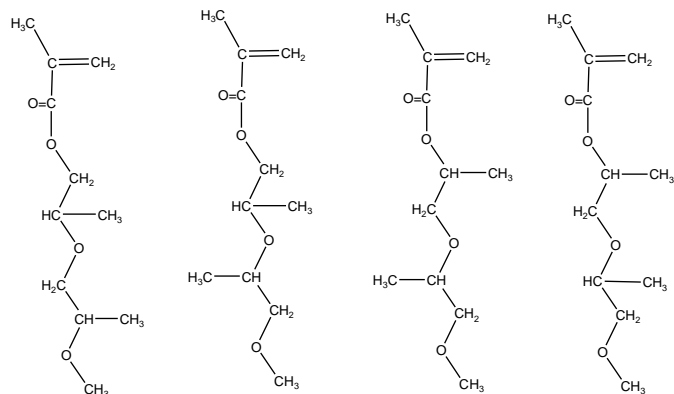
$M_n \times 10^3$	PDI
45.5	1.5
S:4VP: PGMA mole ratio	11:62:27
$M_n$ of Poly(propylene glycol) methacrylate	261

**Characterization:**

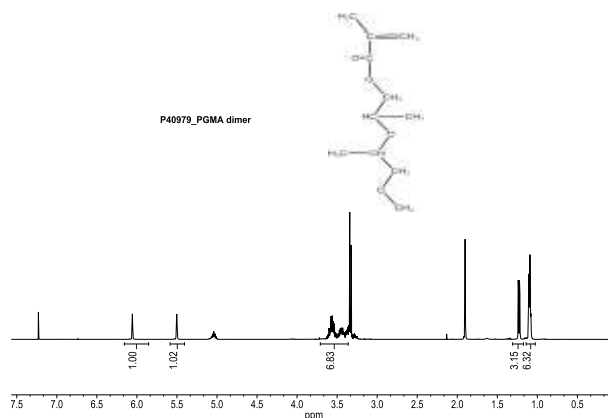
Polymer analyzed by size exclusion chromatography (SEC) to obtain the molecular weight and polydispersity index (PDI). The final block copolymer composition was calculated from  $^1\text{H-NMR}$  spectroscopy.

**Note:** Propylene glycol methacrylate is Dipropylene glycolmethacrylate (dimer): mixture of isomers

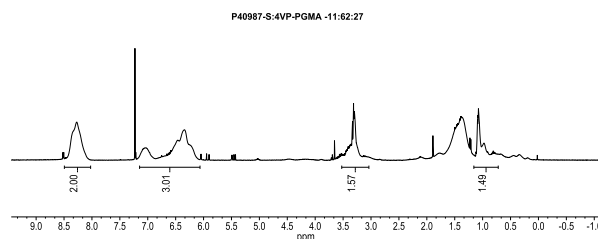
dipropylene glycol methyl ether methacrylate : mixture of isomers



**HNMR of dipropylene glycolmethacrylate (dimer) monomer used in this synthesis Lot # p40979 (Mixture of isomers):**



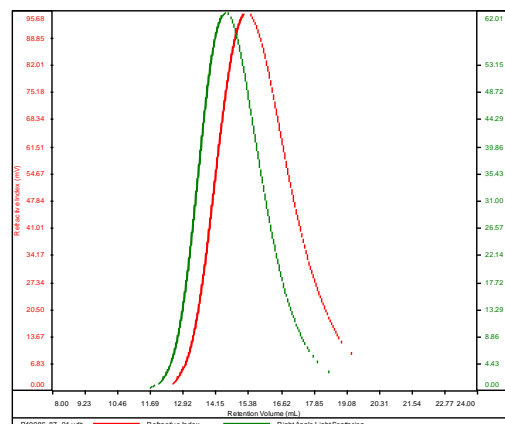
**$^1\text{H-NMR}$  Spectrum of the random copolymer:**



**SEC elugram of the random copolymer:**

P40987-S4VPPGMAran

Conc	8.0523
dn/dc	0.1650
Solvent	DMF w 0.023M LiBr
Flow Rate	0.7000
Method	PS80k_2018-03-09-0000.vcm



Sample	$M_n$	$M_w$	$M_p$	$M_w/M_n$	IV
P40986-87_01.vcl	45,498	68,300	60,836	1.501	0.3180