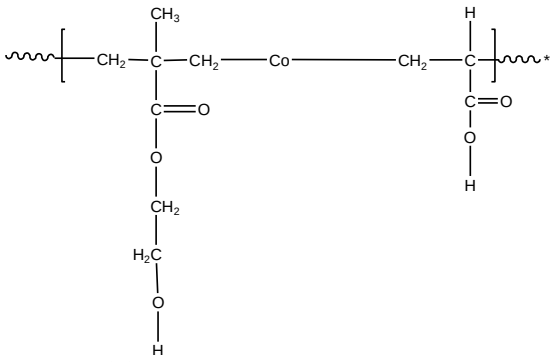
Sample Name: **Random Copolymer Poly (2-Hydroxy ethyl methacrylate-co-Acrylic acid)**

Sample #: **P40693A-HEMAAAran**

Structure:



Composition:

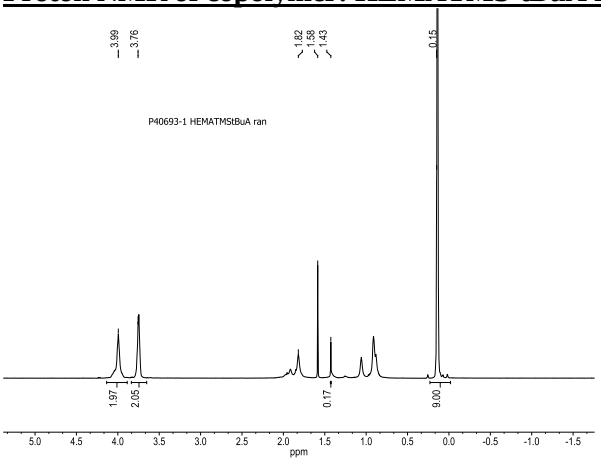
Mn x 10^3 HEMA-co-AA	PDI
73.0	1.19
T_g for the random copolymer	
HEMA:AA molar ratio	98:2

Synthesis Procedure:
The polymer was synthesized by anionic polymerization process.

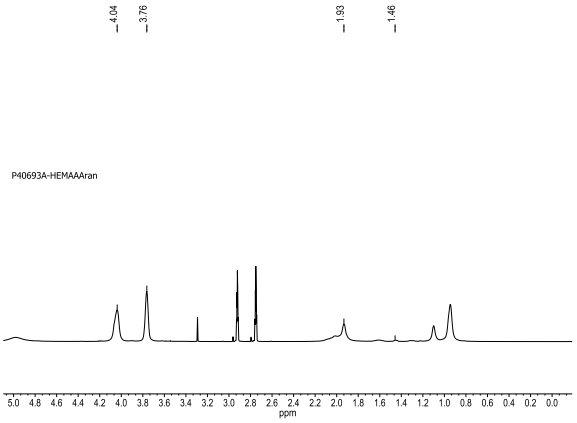
Characterization: By GPC and HNMR
The product was characterized by size exclusion chromatography (SEC) and ^{1}H NMR.

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).

Proton NMR of copolymer: HEMATMS-tBuA ran



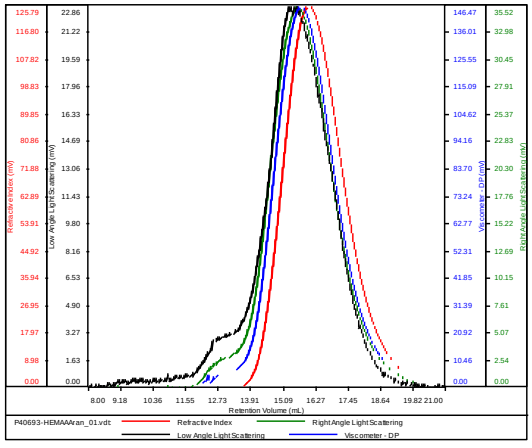
Proton NMR of copolymer: HEMAAA ran



SEC of the random copolymer:

P40693-HEMAAAran

Conc	21.3437
dn/dc	0.0640
Solvent	DMF w 0.023M LiBr
Flow Rate	0.7000
Method	PS80k_2017-July-20-0000.vcm



Sample	Mn	Mw	Mp	Mw/Mn	IV
P40693-HEMAAAran_01.vdt	73,784	88,333	75,612	1.197	20.3965