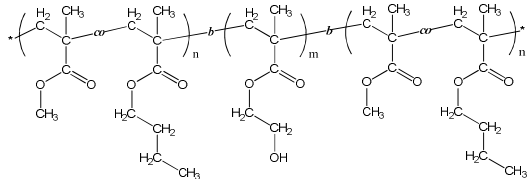


**Sample Name:** Poly(Methyl methacrylate-co-n-Butyl methacrylate random-b-2-Hydroxy ethyl methacrylate-b-Methyl methacrylate-co-n-Butyl methacrylate random)

**Sample #:** P40460-MMAnBuMAran-b-HEMA-b-MMAnBuMAran

**Structure:**



**Composition:**

$M_n \times 10^3$	PDI
MMAnBuMAran-b-HEMA-b- MMAnBuMAran 14.0-b-35.0-b-12.0	1.13

Molar ratio MMA:nBuMA (mol%):	51:49
Weight ratio MMA:nBuMA (wt%):	42:58
Glass transition temperature, $T_{g1}$ :	74 °C
Glass transition temperature, $T_{g2}$ :	114 °C

**Synthesis Procedure:**

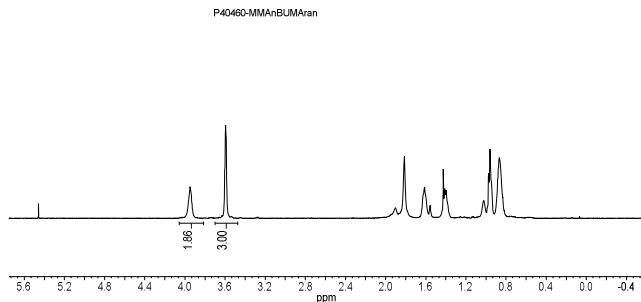
The polymer was synthesized by anionic process by sequential addition of monomers.

**Characterization:**

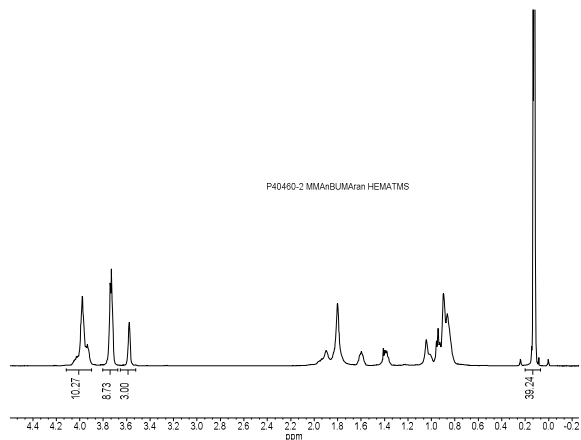
The polymer was characterized by  $^1\text{H-NMR}$  and size exclusion chromatography (SEC).

Thermal analysis of the sample was done on a TA Q100 differential scanning calorimeter (DSC) at a heating rate of 10°C/min. The glass transition temperature ( $T_g$ ) was determined as a midpoint of step change in heat flow curve for the second heating scan.

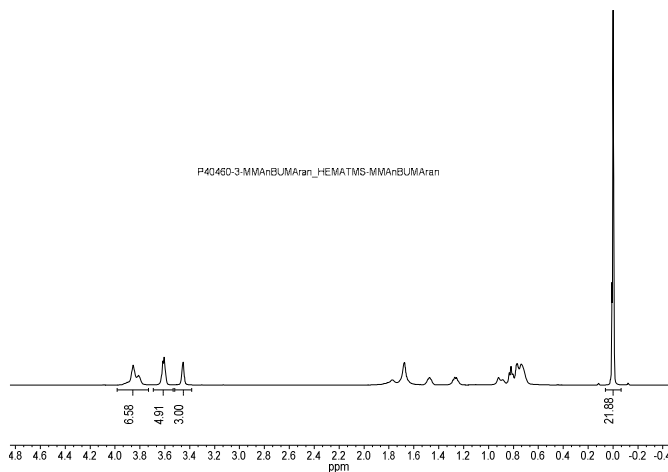
**$^1\text{H-NMR}$  of the MANBUMAran First Block:**



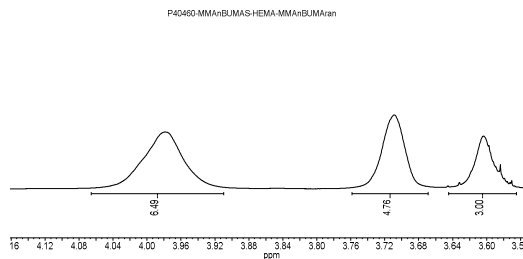
**$^1\text{H-NMR}$  of the MMAnBUMAran-HEMATMS:**



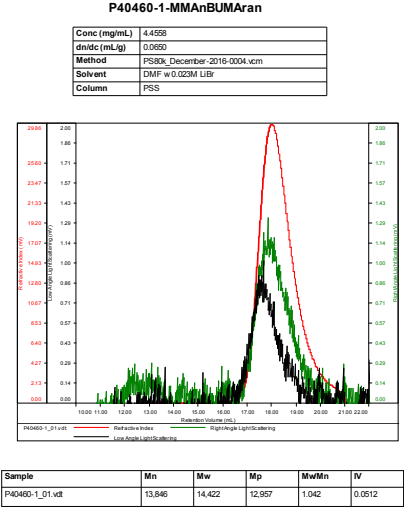
**$^1\text{H-NMR}$  of the MMAnBuMAran-b-HEMA-TMS-b-MMAnBuMAran tri block:**



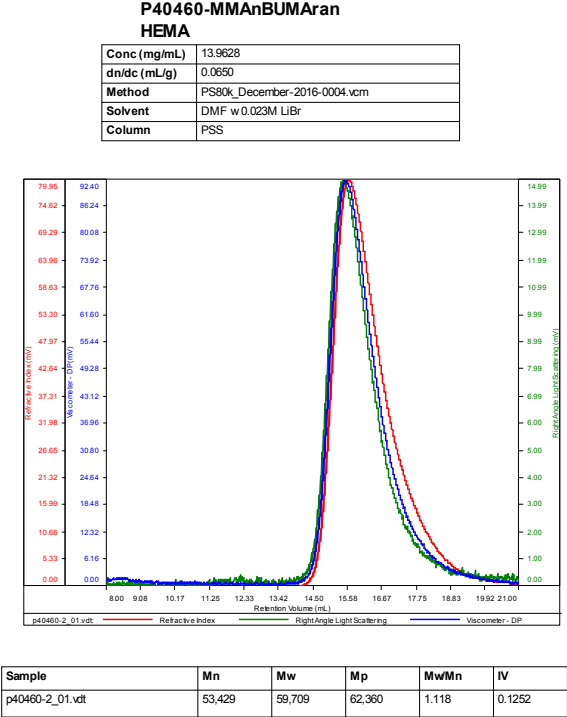
**$^1\text{H-NMR}$  of the MMAnBuMAran-b-HEMA-b-MMAnBuMAran tri block:**



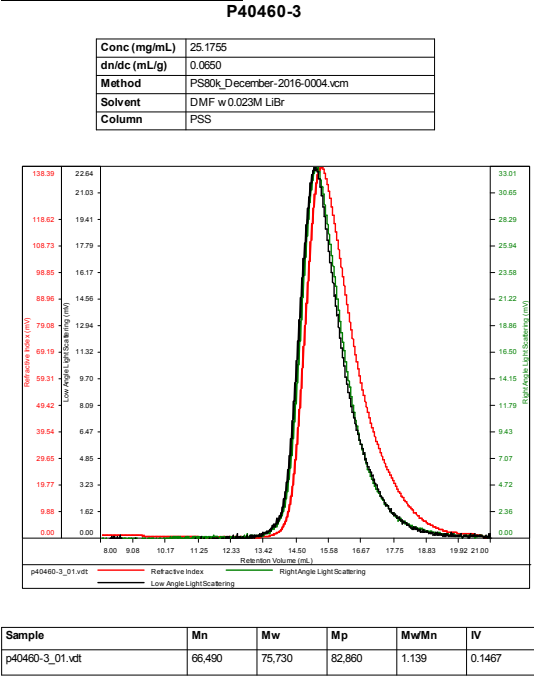
SEC elugram of the MManBUMAran First Block:



SEC elugram of the MMA-nBuMAran-HEMA:



SEC elugram of the MMA-nBuMAran-HEMA-  
MMA-nBuMAran:



DSC thermogram of MManBuMA-b-HEMA-b-  
MManBuMA (2<sup>nd</sup> heating scan, 10°C/min):

