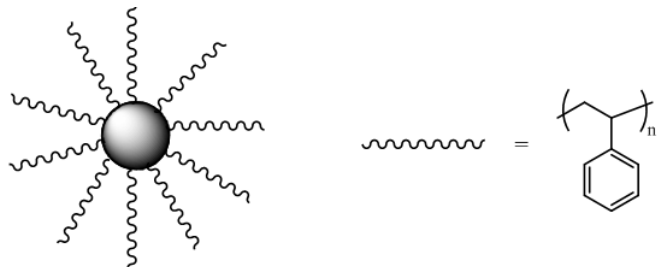


Sample Name: **Multi-arm (star) polystyrene with diethylene glycol dimethacrylate core**

Sample #: **P19780-PS-multiarms**

Structure:



# of Branches: ~ 10 per core

#### Composition:

	$M_n \times 10^3$ (g/mol)	$M_w/M_n$
<i>PS branch:</i>	25	1.04
<i>Star PS:</i>	254	1.13

#### Synthesis Procedure:

The polymer was synthesized by anionic polymerization process.

#### Solubility:

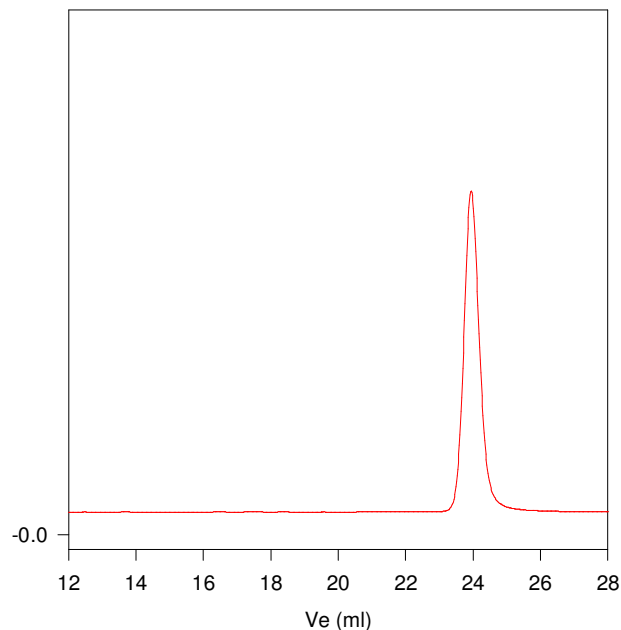
The polymer is soluble in THF, toluene, chloroform.

#### Characterization:

The molecular weight and polydispersity index ( $M_w/M_n$ ) were determined by size exclusion chromatography (SEC).

#### SEC elugram of polystyrene branch:

**P19780-S**



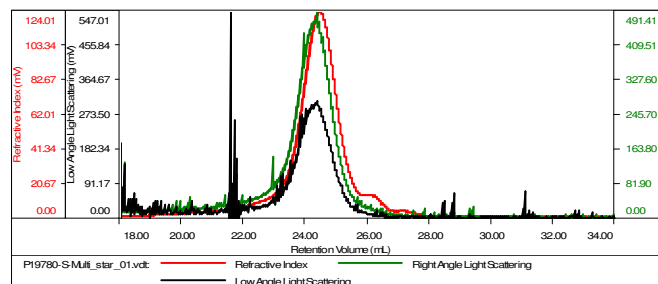
Size exclusion chromatograph of polystyrene:

$M_n=25000$ ,  $M_w=26000$ ,  $PI=1.04$

#### SEC elugram of star polymer:

**Sample ID-P19780-S multi arms**

Concentration (mg/mL)	0.6407
Sample dn/dc (mL/g)	0.1850
Method File	PS80K-March2016-0001.vom
Column Set	3x PL 1113-6300
Solvent	THF



Sample	Mn (Da)	Mw (Da)	Mw/Mn	IV (dL/g)	Rh (nm)	Ret Vol (mL)
P19780-S-Multi_star	254,430	289,094	1.136	2.9097	30.40	24.417