Sample Name:

Poly(glycidyl methacrylate)

Sample #: P14569-GMA (by Anionic process)

Structure:

Composition:

Composition	
Mn x 10 ³	PDI
38.5	3.4
T _g (°C)	72
Microstructure: Syndio:Hetero:iso 55: 33: 12	

Synthesis Procedure:

Poly(glycidyl methacrylate) is obtained by living anionic /GTP polymerization of glycidyl methacrylate. The reaction scheme used for the polymer synthesis is shown below:

$$\begin{array}{c} \text{CH}_3 \\ \text{N } \text{CH}_2 = \begin{array}{c} \text{CH}_3 \\ \text{GTP process} \end{array} \\ \text{O } \\ \text{CH}_2 = \begin{array}{c} \text{CH}_3 \\ \text{GTP process} \end{array} \\ \text{O } \\ \text{CH}_2 = \begin{array}{c} \text{CH}_3 \\ \text{CH}_2 \end{array} \\ \text{CH}_3 = \begin{array}{c} \text{CH}_3 \\ \text{CH}_2 = \begin{array}{c} \text{CH}_3 \\ \text{CH}_3 = \begin{array}{c} \text{CH}_3 = \begin{array}{c} \text{CH}_3 \\ \text{CH}_3 = \begin{array}{c} \text{CH}_3 = \begin{array}{c} \text{CH}_3 \\ \text{CH}_3 = \begin{array}{c} \text{CH$$

Characterization:

The molecular weight and polydispersity index (PDI) of Poly(glycidyl methacrylate) are obtained by size exclusion chromatography.

Thermal analysis

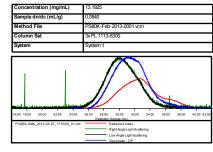
Thermal analysis of the samples was carried out on a TA Q100 differential scanning calorimeter at a heating rate of 10° C/min.The midpoint of the slope change of the heat flow plot of the second heating scan was considered as the glass transition temperature (T_g).

Solubility:

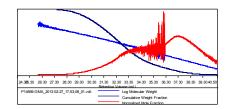
Poly(glycidyl methacrylate) is soluble in THF, CHCl₃, toluene and dioxane. The

polymer precipitates from cold methanol and ethanol.

Sample ID: P14569-GMA



•	Mn (Da)	Mw (Da)	Mp (Da)	MwMn	IV (dL/g)
P14569-GMA_2013-02-27_17;53;08_01.vdt	38,466	131,127	82,472	3.409	0.1943



DSC thermogram of the polymer:

