

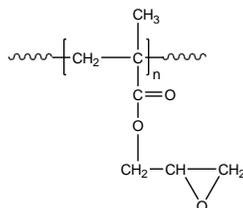
# Product Profile

## Identification

Product Name: Poly(glycidyl methacrylate)

Product Lot Number: P8453-R-GMA

Product Chemical Architecture:

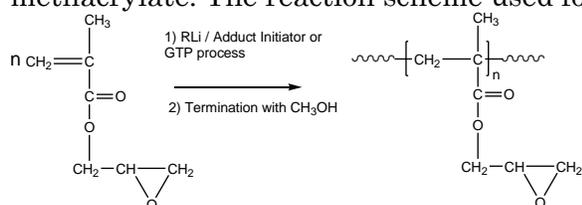


## Composition:

|              |              |
|--------------|--------------|
| Mn (g/mole)  | 20,000       |
| Mw (g/mole)  | 20,500       |
| Mw/Mn        | 1.06         |
| dn/dc (mL/g) | 0.084 in THF |

## Method of Synthesis

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



## Solubility in different solvents

|             |   |                   |   |
|-------------|---|-------------------|---|
| THF         | √ | Alcohol           | X |
| 1,4-dioxane | √ | CHCl <sub>3</sub> | √ |

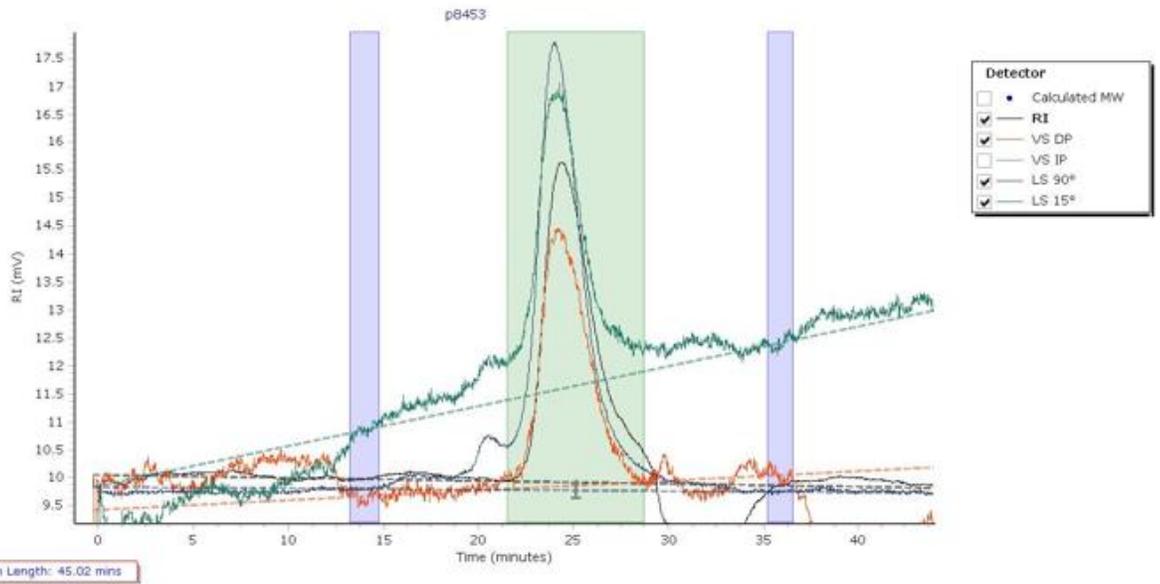
## Validation of Architecture

### A. Gel Permeation Chromatography (GPC), SEC- Profile:

Molecular weights were determined by Agilent Technologie 1260 Infinity II GPC/SEC System equipped with Triple detector (RI, Viscometer, RALS 90o and LS 15o) and three columns (PLgel, 7.5x300 mm, 5µm-10µm, 105-106Å). THF (stabilized BHT) with 1%(v/v%) TEA was the eluent. The flow rate was 1.0 ml/min.

**p8453**

**Chromatogram Plot**



**Molecular Weight Averages**

| Peak   | Mp (g/mol) | Mn (g/mol) | Mw (g/mol) | Mz (g/mol) | Mz+1 (g/mol) | Mv (g/mol) | PD    |
|--------|------------|------------|------------|------------|--------------|------------|-------|
| Peak 1 | 22900      | 19716      | 20866      | 21909      | 22844        | 21859      | 1.058 |

**B. DSC thermogram for the polymer:**

