

Product Profile

Identification

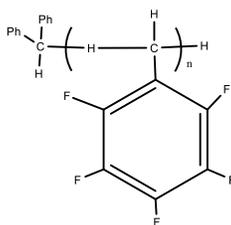
Product Name: Poly(pentafluorostyrene)

Synonym(s): 2,3,4,5,6-Pentafluorostyrene homopolymer

Linear Formula: (C₈H₃F₅)_n

CAS Number: 26838-55-1

Product # P44256A-5FS



Composition:

Mn (g/mole)	4,000
Mw (g/mole)	4,800
Mw/Mn	1.14
dn/dc (mL/g) in THF at 30 °C	0.184

Method of Synthesis

The polymer is synthesized by anionic polymerization process.

Solubility in different solvents:

THF	√		
Alcohol	X	CHCl₃	√
Toluene	√	Water	X

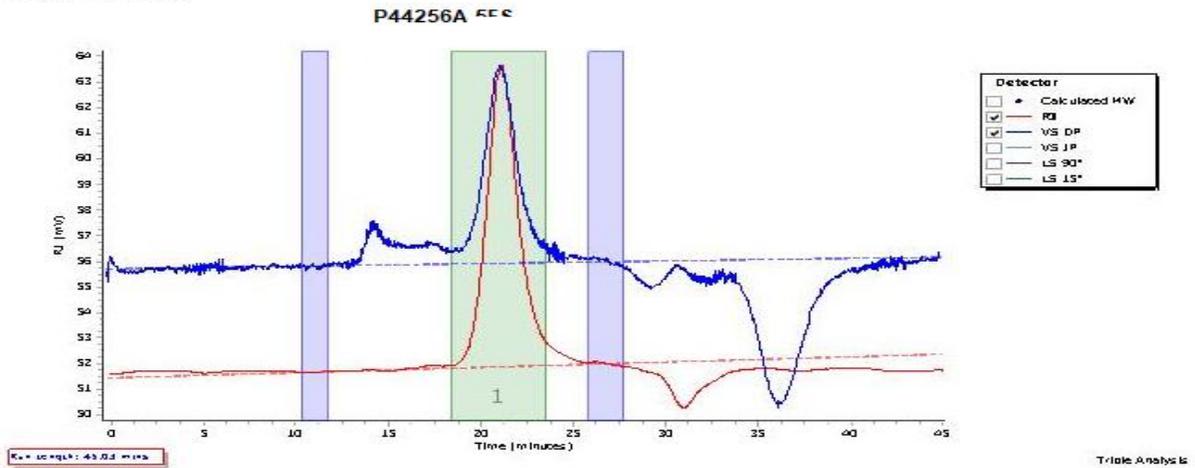
Validation of Architecture

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 90° and LS 15°) 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.



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	4661	4157	4733	5358	6043	5141	1.139