GPC Analysis Service: Silicon Polymers

- ***GPC Analysis of Silicone Polymers***

Silicone polymers, characterized by a backbone of alternating silicon and oxygen atoms, exhibit exceptional thermal resistance, weatherability, and chemical stability. Featuring methyl functional groups, these unique compounds combine organic and inorganic properties, making them essential high-performance materials across all industrial sectors.

Due to their specific chemical structures, silicone polymers often present challenges in GPC analysis, such as low sensitivity that may lead to undetected peaks. Consequently, the selection of appropriate detectors, solvents, and columns is critical. Beyond the standard THF solvent and RI detection typically used in the industry, our institute utilizes Toluene and ELSD (Evaporative Light Scattering Detector) to ensure the highest quality analytical results.

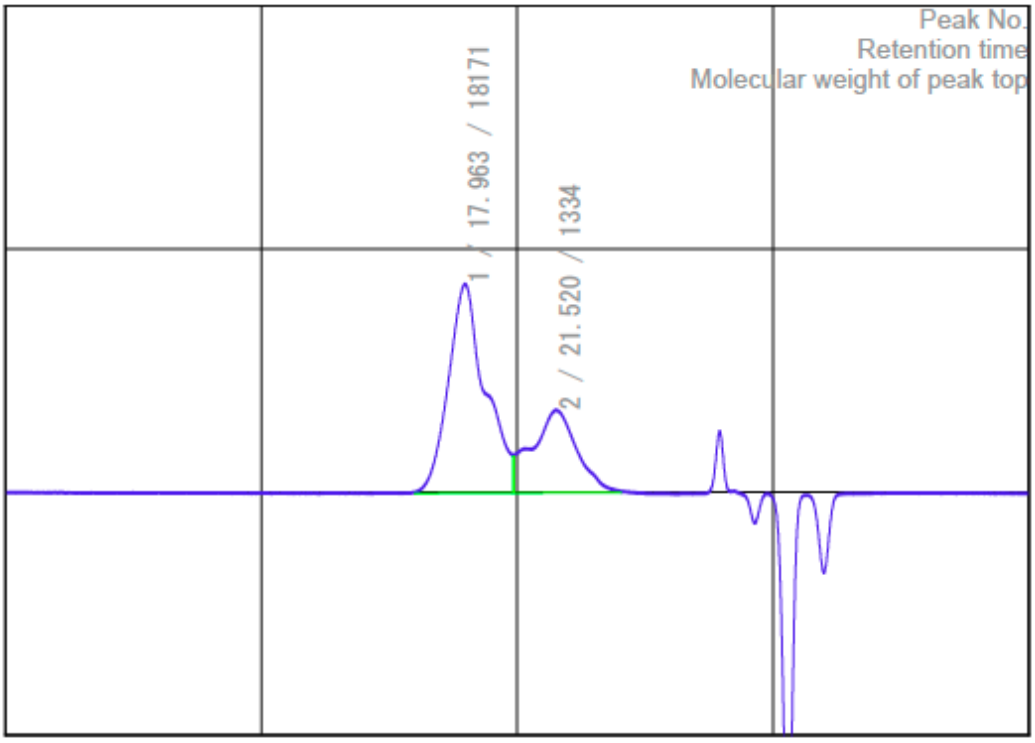
If you are experiencing difficulties with molecular weight measurement due to these unique characteristics, please contact us. Our expert researchers are dedicated to providing prompt and accurate technical support.

- ***Representative Silicone Polymers Analyzed via GPC***

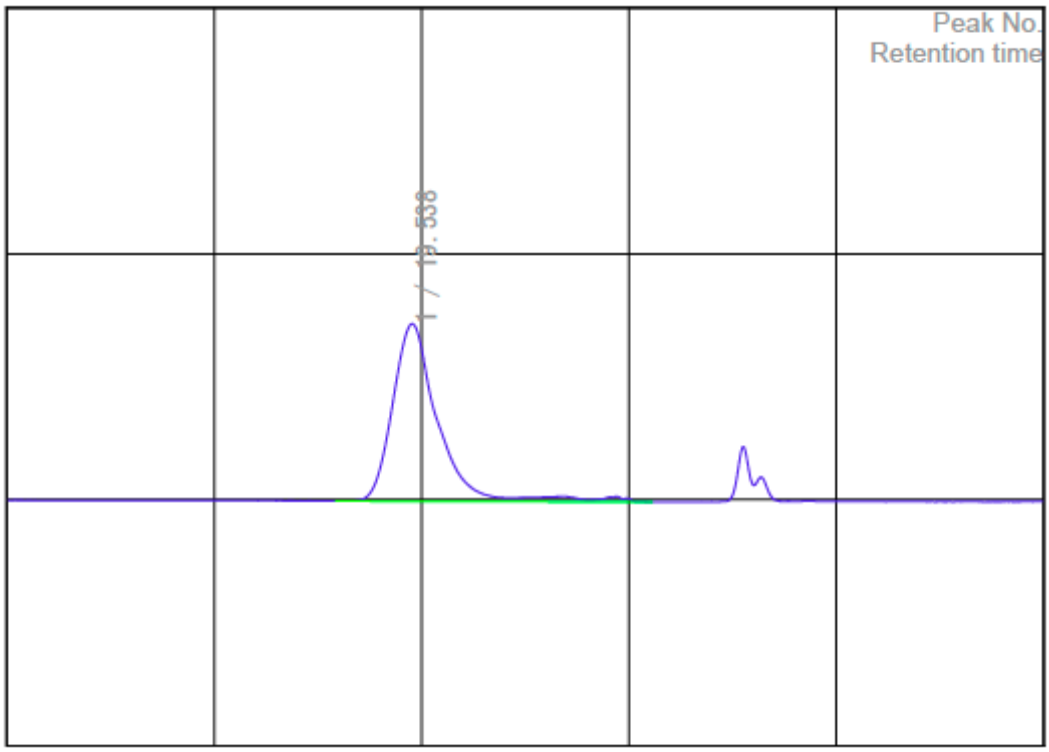
Analysis Solvents	Detectors	Polymer Types
THF, Toluene	RI, ELSD	Polysiloxane, PDMS(Polydimethylsiloxane), Silicone oil, Silicone rubber

- ***Examples of Silicone Polymer GPC Analysis***

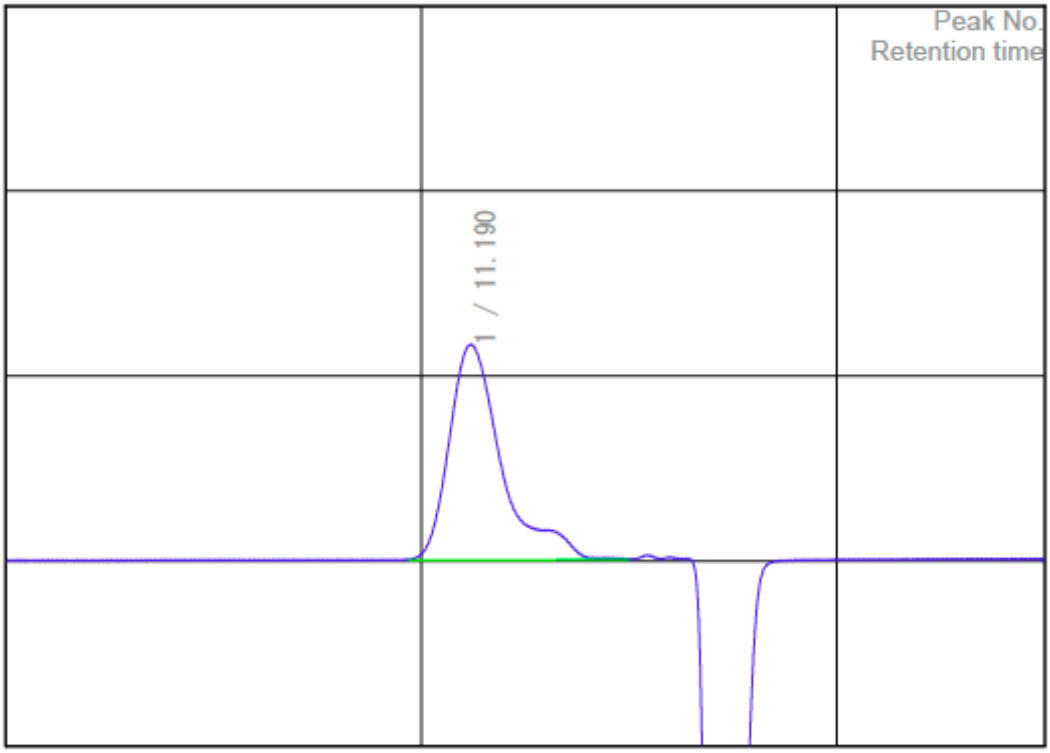
THF-GPC Chromatogram of Polysiloxane



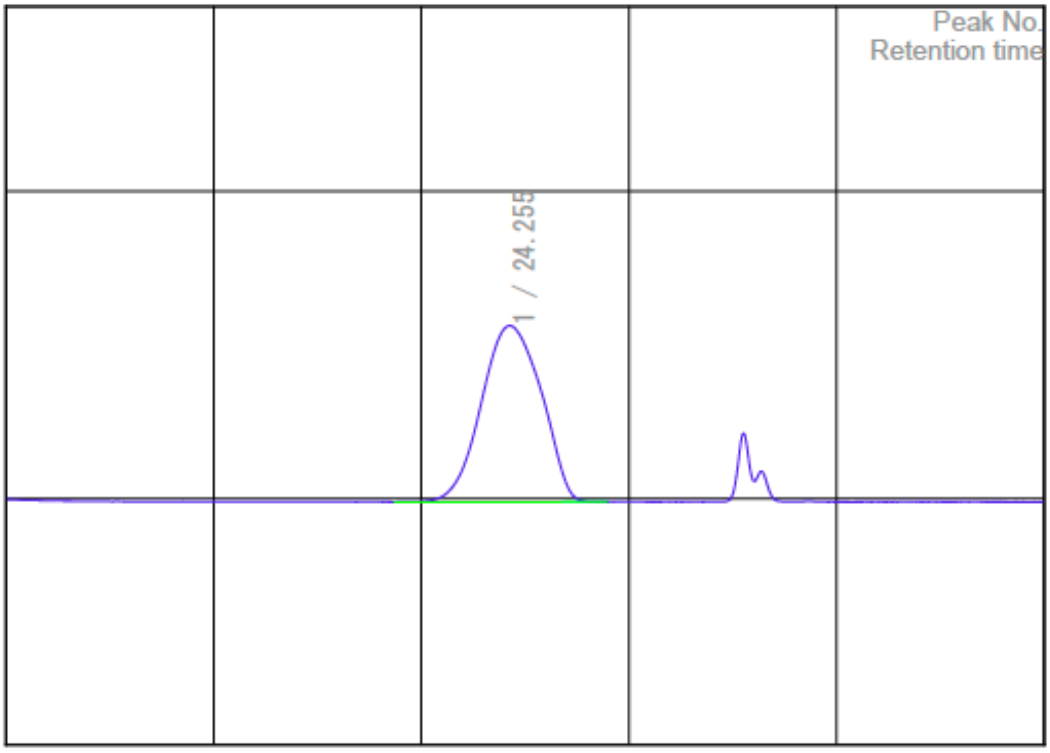
Toluene-GPC Chromatogram of Polysiloxane



THF-GPC Chromatogram of PDMS (Polydimethylsiloxane)



THF-GPC Chromatogram of PDMS (Polydimethylsiloxane)



THF-GPC Chromatogram of PDMS (Polydimethylsiloxane)