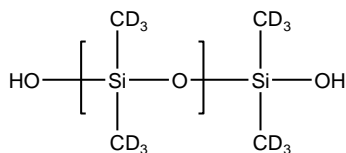


Sample Name:

**Deuterated Poly (dimethylsiloxane-d6) ,  $\alpha,\omega$ -bis(silanol)-terminated**

Sample #: **P42184-dPDMS**

**Structure:**



**Composition:**

$\text{Mn} \times 10^3$	PDI
86.0	1.6

**Synthesis Procedure:**

The polymerization of the Deuterated Polydimethyl siloxane; Disilanol terminated was initiated with  $\text{CF}_3\text{SO}_3\text{H}$  Cationic polymerization process.

**Characterization:**

The product was characterized by size exclusion chromatography (SEC) and D NMR.

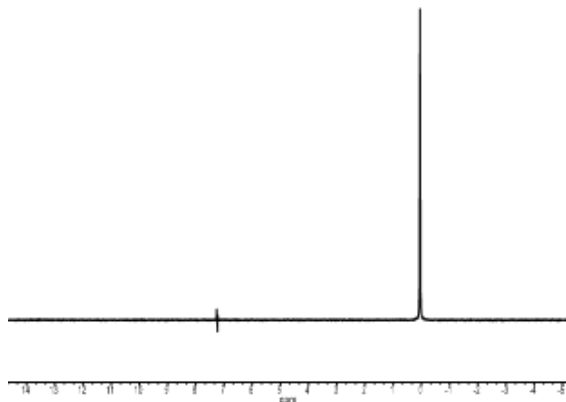
The following table is a listing of the conditions used for SEC analysis:

Parameter	Condition Used
Dissolution Solvent	Toluene
Sample Concentration	20 to 40 mg/mL
Filtration	0.2 $\mu\text{m}$ Nylon syringe filter
Mobile Solvent	Toluene
Columns	2 X Malvern T3000
Flow Rate	1.0 mL/min
System Back Pressure	800 psi
Injection Volume	100 $\mu\text{L}$
Column Temperature	30°C
Detector Temperature	30°C

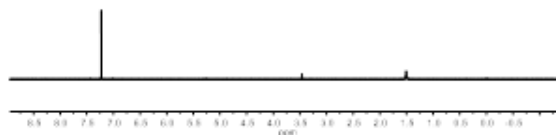
**Solubility:**

Deuterated Polydimethyl siloxane is soluble in hexane, toluene, cyclohexane, THF and chloroform but precipitates from methanol and ethanol.

**D NMR spectrum of the Sample:**



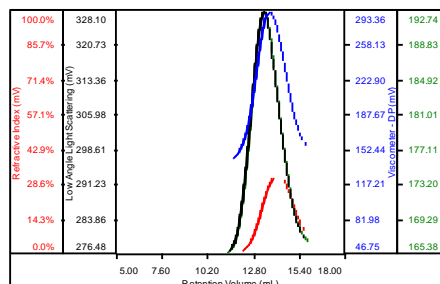
**HNMR spectrum of the Sample:**



**SEC elugram of the Sample:**

P42184-d6PDMS

dn/dc	0.0900
Solvent	Toluene
Flow Rate	1.0000
Method	PS100K-08302019-0000.vcm



Sample	Mn	Mw	Mz	IV	Mw/Mn
2019-12-22_19:09:56_d6DMS-F1_01.vcl	86,403	142,291	247,731	0.2256	1.647