

Errata Notice

This document contains references to PSS or Polymer Standards Service. Please note that PSS is now Agilent. This document will be republished as an Agilent document in the future.



A part of Agilent

10041 - Column Application Note Characterization of Poly(ethylene oxide)

Poly(ethylene oxide) (PEO) or Poly (ethylene glycol) (PEG) refers to an oligomer or polymers of ethylene oxide. The two names are chemically synonymous, but historically PEG refers to lower molecular weights, PEO to higher molecular weights.

Experimental Setup

Mobile Phase:	Water Sodium azide 0.05%
Stationary Phase:	PSS SUPREMA
Flow rate [mL/min]:	1,00
Temperature [°C]:	25
Detection:	Shodex-RI71
Calibration:	ReadyCal-Kit Poly(ethylene oxide)
Data processing:	PSS WinGPC

Recommendations for Sample Concentration

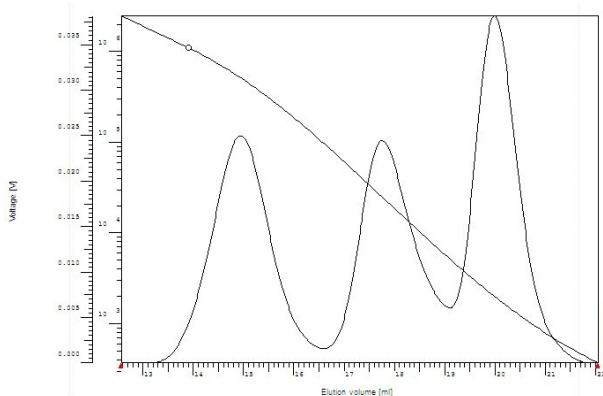
narrow PDI	
M 100 Da - 10 000 Da:	2 g/L
M 10 000 Da - 1 000 000 Da:	1-2 g/L
M > 1 000 000 Da:	0.5 g/L or less
broad PDI (>1.5)	
all molar masses:	3.0 - 5.0 g/L
Injection volume [µL]:	100



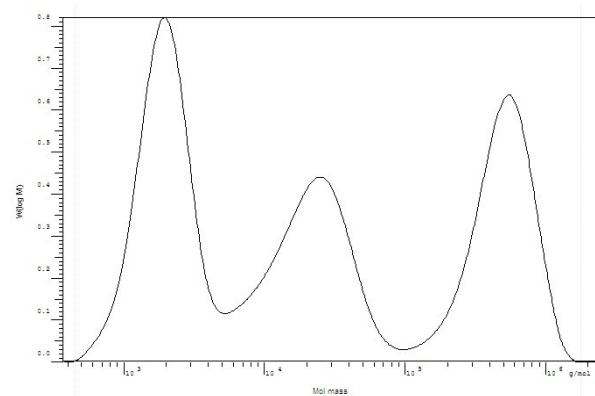
Suitable Columns

low molecular weights:	P/N 206-0001 (set of 3) OR sua083005lis (1 linear)
medium molecular weights:	P/N 206-0002 (set of 3) OR sua083005lim (1 linear)
high molecular weights:	P/N 206-0003 (set of 3) OR sua083010lxl (1 linear)
ultrahigh molecular weights:	P/N 206-0004 (set of 3) OR sua083010luh (1 linear)

Elugram and Calibration separation on PSS SUPREMA



Molar Mass Distribution separation on PSS SUPREMA



PSS Polymer Standards
Service GmbH
In der Dalheimer Wiese 5
55120 Mainz | Germany

Phone +49 6131 96239-0
Fax +49 6131 96239-11
E-Mail info@pss-polymer.com
Web www.pss-polymer.com

Polymer Standards
Service-USA, Inc.
160 Old Farm Rd, Suite A
Amherst | MA 01002 | USA

Phone +1 413 835-0265
Fax +1 413 835-0354
E-Mail pssusa@pss-polymer.com
Web www.pss-polymer.com

DE96342163
5994-6281EN
July 1, 2023