PSS
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10085 - Column Application Note Characterization of Epoxy Resins

Epoxy resins are typically oligomeric compounds containing more than one epoxy function. Many Epoxy resins are prepared by the reaction of bisphenol A with epichlorhydrin. They are used for the preparation of duroplasts by polyaddition with polyfunctional amines (hardeners) or carbonic acids/anhydrides. Typically they are used in electronic industry for isolation, as coatings, glue for plastics or for sealings.

Experimental Setup

Mobile Phase:	Tetrahydrofuran
Stationary Phase:	PSS SDV
Flow rate [mL/min]:	1,00
Temperature [°C]:	25
Detection:	Shodex-RI71
Calibration:	ReadyCal-Kit Poly(styrene) low
Data processing:	PSS WinGPC

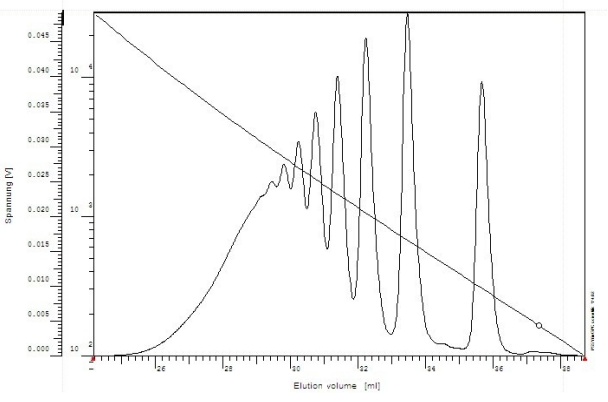
Recommandations for Sample Concentration

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]:	20

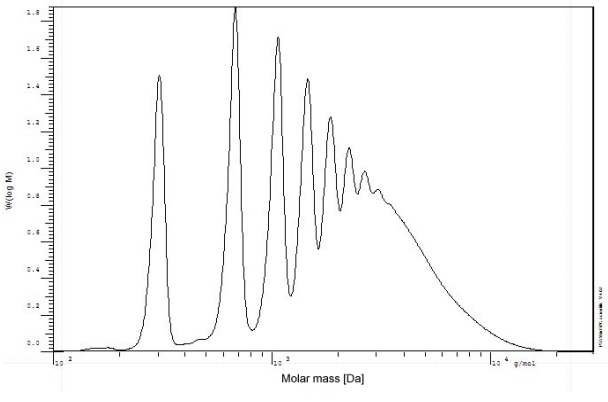
Suitable Columns

low molecular weights:	P/N 201-0001 (set of 3) OR sda083003lis (1 linear)
medium molecular weights:	-
high molecular weights:	-
ultrahigh molecular weights:	-

Elugram and Calibration
separation on PSS SDV



Molar Mass Distribution
separation on PSS SDV



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