

### Errata Notice

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## # 10035 - Column Application Note Characterization of Poly(isobutylene)

Poly(isobutylene) (PIB) can be made from the monomer isobutylene by cationic polymerization. Polyisobutylene is an elastomer and gas impermeable. The first major application of PIB/ butyl rubber (copolymer: 98% isobutylene, 2% of isoprene) was tire inner tubes. PIB (in the form of polyisobutylene succinimide) is used as an additive in lubricating oils and motor fuels.

### Experimental Setup

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



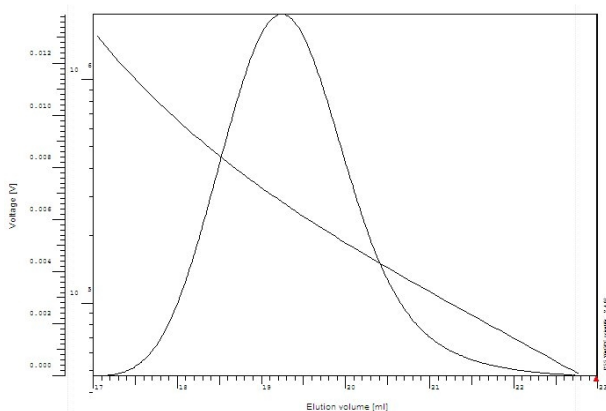
### Recommadations for Sample Concentration

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 [ $\mu$ L]:	20

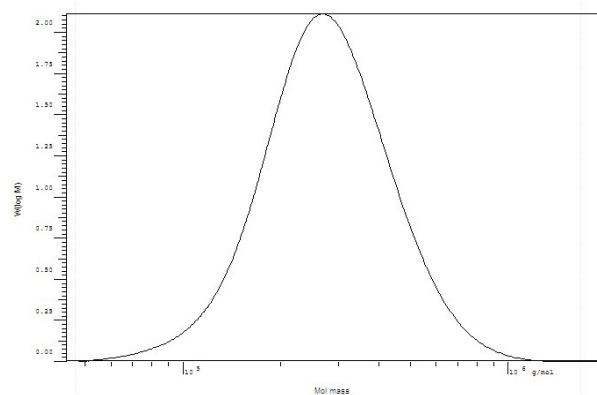
### Suitable Columns

low molecular weights:	P/N 201-0001 (set of 3) OR sda083003lis (1 linear)
medium molecular weights:	P/N 201-0002 (set of 2) OR sda083005lim (1 linear)
high molecular weights:	P/N 201-0003 (set of 3) OR sda083005ixl (1 linear)
ultrahigh molecular weights:	P/N 202-0001 (set of 3)

### Elugram and Calibration separation on PSS SDV



### Molar Mass Distribution separation on PSS SDV



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