

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.



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10084 - Column Application Note Characterization of an Poly(ethylene-vinyl acetate) Copolymer

Ethylene-vinyl acetate copolymers are copolymers from ethylene and vinyl acetate. Both monomers react after radical initiation statistically in any ratio. The ratio of ethylene and vinyl acetate determines the properties of the copolymers. They are used for heat/weather resistant tech. rubber products like sealings, also for foils and profiles in building industry, as additives for impact resistant PVC, as softener for PVC and for improving of the ozone resistance of SBR and natural rubber.

Experimental Setup

Mobile Phase:	Tetrahydrofuran
Stationary Phase:	PSS SDV
Flow rate [mL/min]:	0,75
Temperature [°C]:	25
Detection:	Shodex-RI71
Calibration:	ReadyCal-Kit Poly(styrene)
Data processing:	PSS WinGPC

Recommendations for Sample Concentration

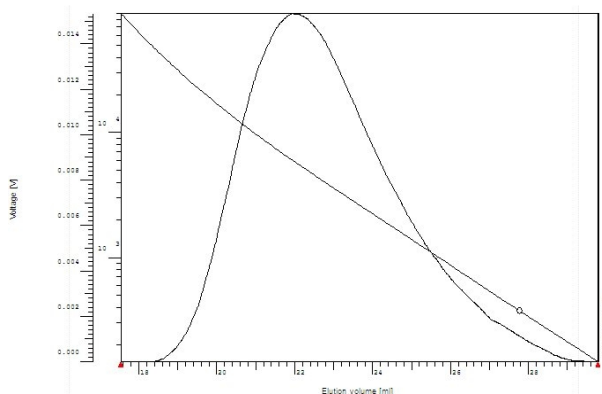
narrow PDI	
M 100 Da - 10 000 Da:	2 g/L
M 10 000 Da - 1 000 000 Da:	1-2 g/L
M > 1 000 000 Da:	0.5 g/L or less
broad PDI (>1.5)	
all molar masses:	3.0 - 5.0 g/L
Injection volume [μ L]:	100



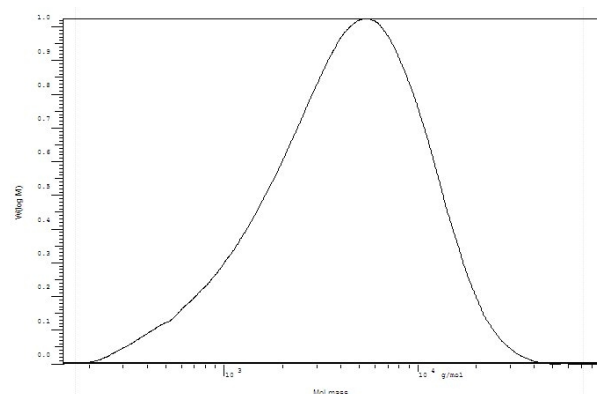
Suitable Columns

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 sda083005lxl (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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