10031 - Column Application Note
Characterization of Poly(methyl methacrylate)

A part of **Agilent**

Poly(methyl methacrylates (PMMA) and copolymers with a high content of PMMA are used in plastics applications. PMMA is a thermoplastic and transparent materialc and is commonly called acrylic glass or simply acrylic. The material is often used as an alternative to glass.

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(methyl methacrylate)
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]:	100

Suitable Columns

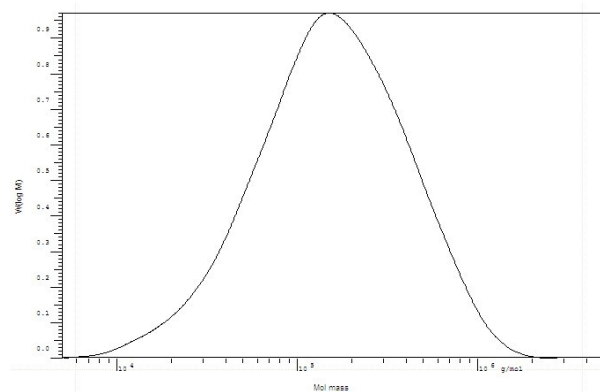|	
low molecular weights:	P/N 201-0001 (set of 3) OR sda083003lis (1 linear)
medium molecular weights:	P/N 201-0002 (set of 2) OR sda083005lim (1 linear)
high molecular weights:	P/N 201-0003 (set of 3) OR sda083005lxl (1 linear)
ultrahigh molecular weights:	P/N 202-0001 (set of 3)

Elugram and Calibration
separation on PSS SDV
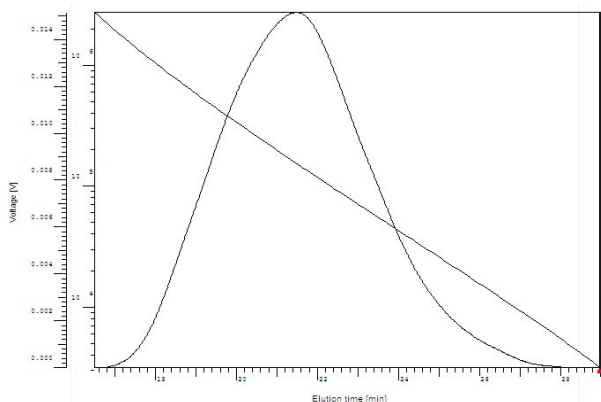
Molar Mass Distribution
separation on PSS SDV