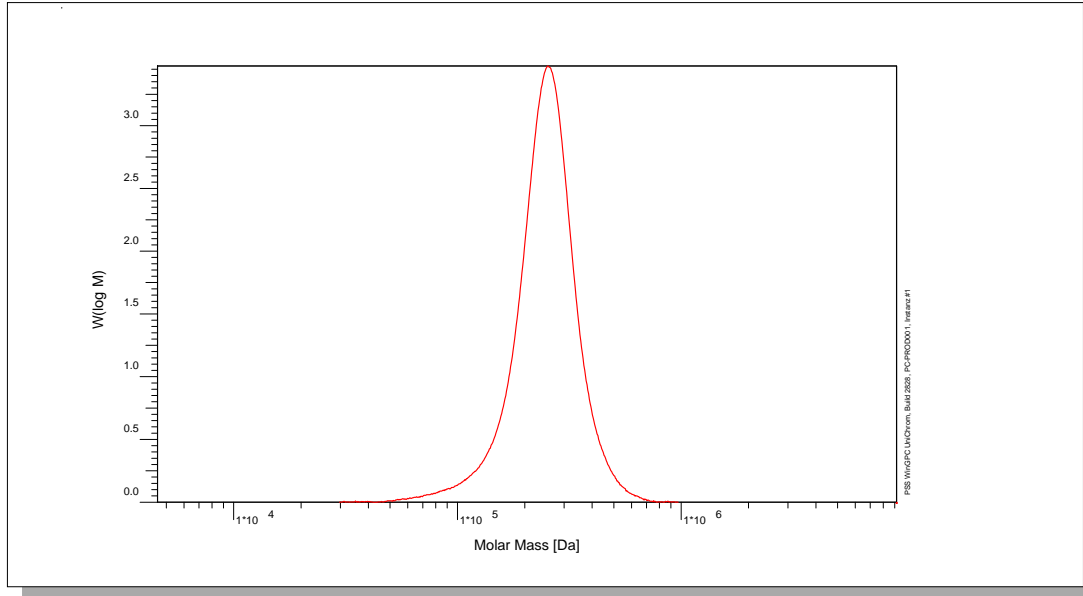


Certificate of Analysis

Polymer type: Poly(ethylene oxide)
 Part No: PSS-peo220k
 Lot No: peo120515

Molar Mass Distribution



GPC/SEC - Conditions

Sample concentration	1,00 g/l	Inject volume	20 µl
Flow rate	1,00 ml/min	Temperature	30 °C
Solvent	Water, Sodium azide 0.2g/L		
Precolumn [8 x 50 mm]	PSS SUPREMA 10µm		
Columns [analytical, each 8 x 300 mm]	PSS SUPREMA 10µm 100Å / 100Å / 10 000Å / 10 000Å		
Data Acquisition Software	PSS WinGPC	Operator	J.Preis

GPC/SEC - Results

Detector	Mw [Da]	Mn [Da]	Mp [Da]	PDI [Mw/Mn]
Agilent RID	220000	196000	217000	1,12

Additional Methods - Results

Method	Mw [Da]
Light Scattering, on-line (SLD7x00)	203000

Mw = Weight average molecular weight
 Mn = Number average molecular weight
 Mp = Molar mass at the peak maximum
 PDI = Polydispersity Index

Light Scattering run on-line, based on Toluene Rayleigh Ratio $R = 1.404 \cdot 10^{-5} \text{ cm}^{-1}$ at 633 nm.
 System and instrument validation based on DIN-Pullulan Lot No: p-100di.

Sample concentration	0.9900 g/L
Inject volume	100µL
Sample dn/dc	0.132mL/g

Polymer stabilized with 500 ppm Irganox® 1076.

Storage: Store the tightly recapped polymer standard in a dry, dark, cool area; e.g. a refrigerator (4 °C).

Date of expiry: yyyy/mm/dd (See also product label.)

Date of approval: yyyy/mm/dd

Manufacture and control according to PSS method of analysis



Dr. T. Hofe
production director