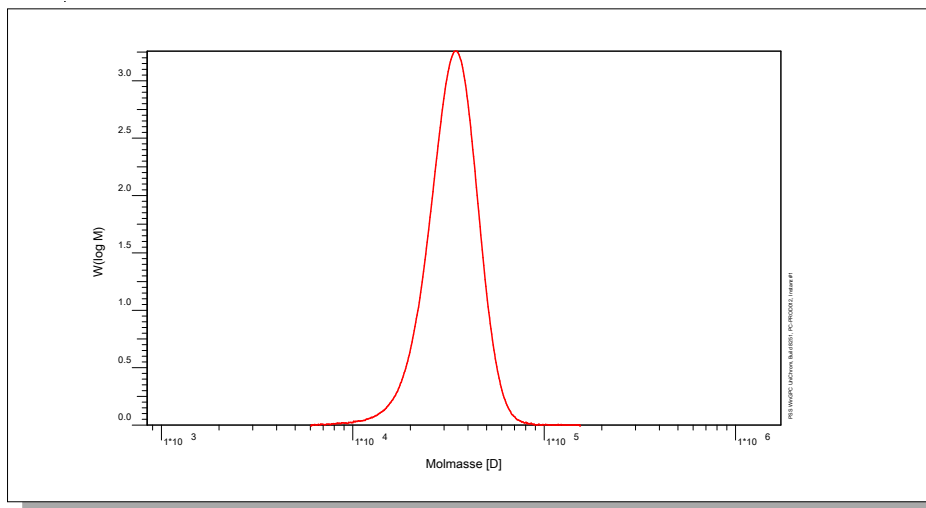


Certificate of Analysis

Polymer type: Poly(ethylene oxide-d4)
 Part No: PSS-peode33k
 Lot No: peod4270919

Molar Mass Distribution



GPC/SEC - Conditions

Sample concentration	1,00 g/l	Inject volume	20 µl
Solvent	Water, 0.5g/L sodium azide	Flow rate	1,00 ml/min
Precolumn [8 x 50 mm]	PSS SUPREMA 10µm	Temperature	23 °C
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]
PSS SECcurity RI	34400	31300	34700	1,10

Additional Methods - Results

Method	Mw [Da]
Light Scattering, on-line (SLD7x00)	32200

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

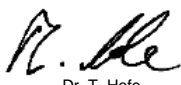
Light Scattering run on-line, based on Toluene Rayleigh Ratio $R = 1.404 \cdot 10^{-5} \text{ cm}^{-1}$ at 633 nm.
 System and instrument validation based on Pullulan Lot No: p-100-2di.

Sample concentration 4,0756 g/L
 Inject volume 100µL

Polymer is stabilized with deuterated methanol.

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

