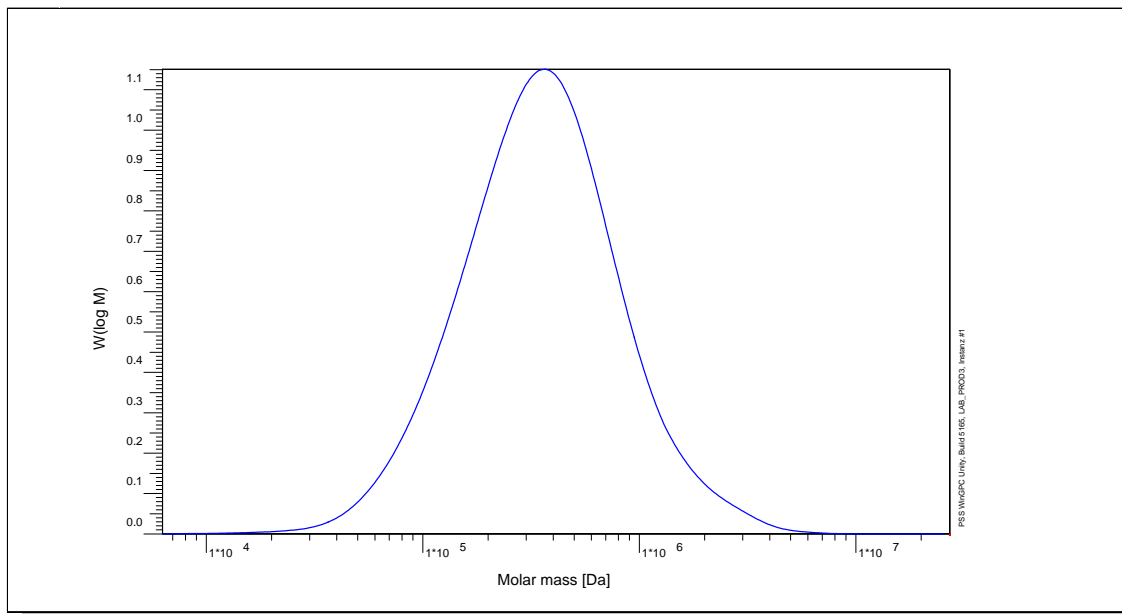


Certificate of Analysis

Polymer type: Poly(styrene sulfonate) sodium salt broad
 Part No: PSS-pssb500k
 Lot No: pssbr5042

Molar Mass Distribution



GPC/SEC - Conditions

Sample concentration	2,00 g/l	Inject volume	20 µl
Solvent	Na2HPO4/pH9	Flow rate	1,00 ml/min
Precolumn [8 x 50 mm]	PSS MCX 10µm	Temperature	23,0° C
Columns [analytical, each 8 x 300 mm]	PSS MCX 10µm 10e3Å / 10e5Å / 10e7Å	Operator	S. Fugmann
Data Acquisition Software	PSS WinGPC		

GPC/SEC - Results

Detector	Mw (Da)	Mn (Da)	Mp (Da)	PDI (Mw/Mn)
Agilent UV 254nm	466000	-	-	> 1,50

Parent Poly(styrene) Molecular Weight: Mw (Da) = 248 000 Mn (Da) = 143 000 Mp (Da) = - PDI = >1.50

Note:

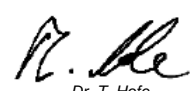
Mw = Weight average molecular weight
 Mn = Number average molecular weight
 Mp = Molar mass at the peak maximum
 PDI = Polydispersity Index

Molecular weights are calculated with factor 1.88
 (pss sodium salt / ps x 0.95)
 Degree of sulfonation > 90 %

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

Date of expiry: See product label.

Manufacture and control according to PSS method of analysis


 Dr. T. Hofe
 production director

