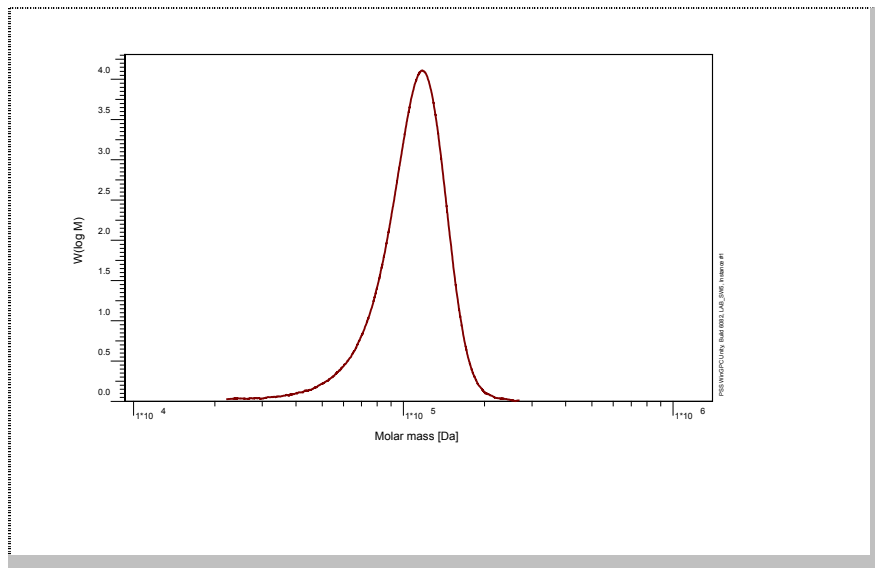


Certificate of Analysis

Polymer type: Poly(styrene-d8-b-methyl methacrylate)
 Part No: PSS-psdemm110k
 Lot No: psd8mm220109

Copolymer Analysis



■ Copolymer molecular weight distribution

GPC/SEC – Conditions

Sample concentration	1,00 g/l	Inject volume	20 µl
Solvent	Tetrahydrofuran	Flow rate	1.00 ml/min
Temperature	23 °C		
Precolumn [8 x 50 mm]	PSS SDV 5µm		
Columns [analytical, each 8 x 300 mm]	PSS SDV 5µm 10e3Å / 10e5Å / 10e6Å		
Data Acquisition Software	PSS WinGPC	Operator	K. Oleschko


GPC/SEC – Results*

Detector	Mw (total) [Da]	Mn (total) [Da]	Mp (total) [Da]	PDI (total) [Mw/Mn]
Agilent RID	113 000	106 000	118 000	1.07

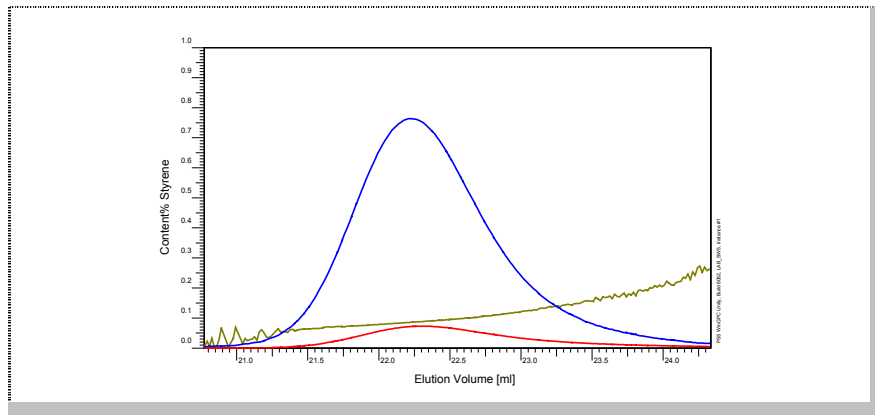
* GPC/SEC – Results based on Copolymer Analysis Procedure
t-butyl methacrylate was used as coupling agent
 Endgroups: *s*-Butyl (CH₃CH₂CH(CH₃))- and Hydroxyl (OH)-groups

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

Copolymer Analysis



■ compositional drift
 ■ measured concentration
 ■ apparent concentration

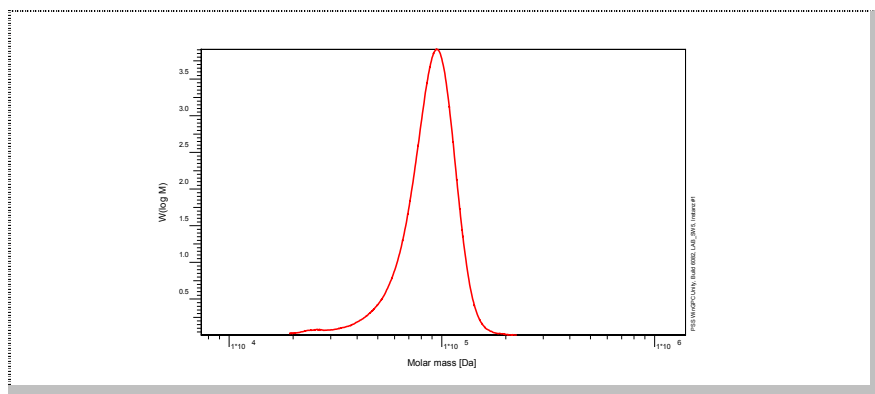
GPC/SEC – Results*

Detector	Mw (total) [Da]	Mw (psd8) [Da]	Mw (mm) [Da]	PDI (total) [Mw/Mn]
Agilent RID	113 000	13 000	100 000	1.07

* GPC/SEC – Results based on Copolymer Analysis Procedure

Copolymer - Composition	[w %]
Poly(styrene-d8)	12
Poly(methyl methacrylate)	88

Molar Mass Distribution



GPC/SEC – Results*

Detector	Mw (total) [Da]	Mw (psd8) [Da]	Mw (mm) [Da]	PDI (total) [Mw/Mn]
Agilent RID	90 000	13 000	77 000	1.10

* GPC/SEC – Results based on Poly(styrene) calibration

Copolymer - Composition	[w %]
Poly(styrene-d8)	14
Poly(methyl methacrylate)	86

Note:

Mw = Weight Average Molecular Weight
 Mn = Number Average Molecular Weight
 Mp = Molar Mass at the Peak Maximum
 PDI = Polydispersity Index