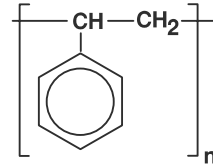
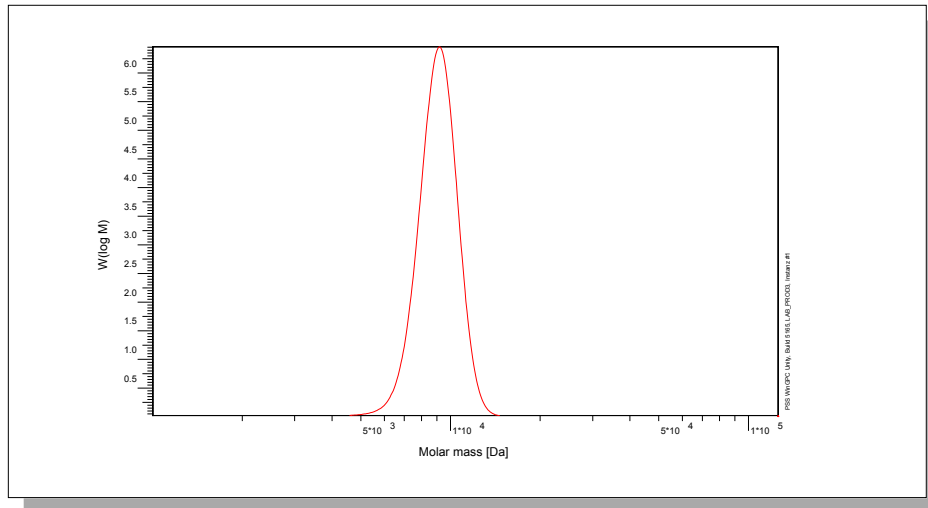


Certificate of Analysis

Polymer type: DIN-Poly(styrene)
 Part No: PSS-dps9k
 Lot No: ps21061di



Molar Mass Distribution



GPC/SEC - Conditions

Sample concentration	1,00 g/l	Inject volume	20 µl
Solvent	Tetrahydrofuran	Flow rate	1,00 ml/min
Precolumn [8 x 50 mm]	PSS SDV 5µm	Temperature	25 °C
Columns [analytical, each 8 x 300 mm]	PSS SDV 5µm 10e3Å / 10e5Å / 10e6Å	Operator	S. Fugmann
Data Acquisition Software	PSS WinGPC		

GPC/SEC - Results

Detector	Mw [Da]	Mn [Da]	Mp [Da]	PDI [Mw/Mn]
Shodex RI 71	8900	8650	9130	1,03

Additional Methods - Results

Method	Mw [Da]	Mn [Da]
Light Scattering	8 970	-
Vapor Pressure Osmometry	-	-
Nuclear Magnetic Resonance	-	-


Note:

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

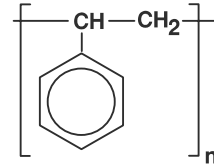
All analysis run according to ISO EN 13885 and DIN 55672

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

Polymer type: DIN-Poly(styrene)
Part No: PSS-dps9k
Lot No: ps21061di



Light Scattering run on-line, based on Toluene Rayleigh Ratio $R_{\theta} = 1.404 \cdot 10^{-5} \text{ cm}^{-1}$ at 633 nm.

Instrument	Wyatt Tech DAWN-F, 488 nm (using 15 angles: 31°, 38°, 45°, 53°, 61°, 70°, 80°, 90°, 99°, 109°, 119°, 129°, 138°, 147°, 155°)
Solvent	Toluene
Temperature	25 °C
Flow rate	1,00 ml/min
Precolumn [8 x 50 mm]	PSS SDV 5µm
Columns [analytical, each 8 x 300 mm]	PSS SDV 5µm 10e3Å / 10e5Å / 10e6Å
Sample concentration	2.9750 g/l
Inject volume	100 µl
Sample dn/dc	0.200 ml/g