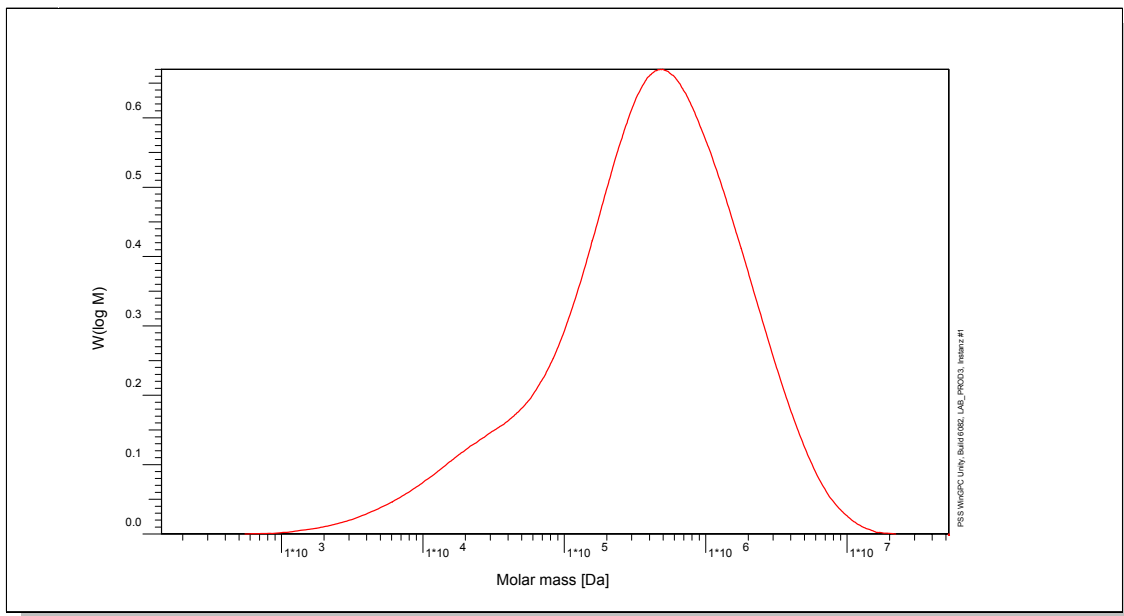


Certificate of Analysis

Polymer type: Poly(vinyl pyrrolidone) broad
 Part No: PSS-vpr1m
 Lot No: vpr1065k

Molar Mass Distribution



GPC/SEC - Conditions

Sample concentration	3,00 g/l	Inject volume	50 µl
Solvent	DMF+5g/l LiBr	Flow rate	1,00 ml/min
Precolumn [8 x 50 mm]	PSS Gram 10µm	Temperature	70,0° C
Columns [analytical, each 8 x 300 mm]	PSS GRAM 10µm 1 000Å / 3 000Å	Operator	S. Fugmann
Data Acquisition Software	PSS WinGPC		

GPC/SEC - Results

Detector	Mw [Da]	Mn [Da]	Mp [Da]	PDI [Mw/Mn]
Shodex RI 71	1065000	165000	-	6,45

Note:

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

GPC/SEC - Results based on calibration with Poly(vinyl pyrrolidone) broad

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 control according to PSS method of analysis



Dr. T. Hofe
production director

