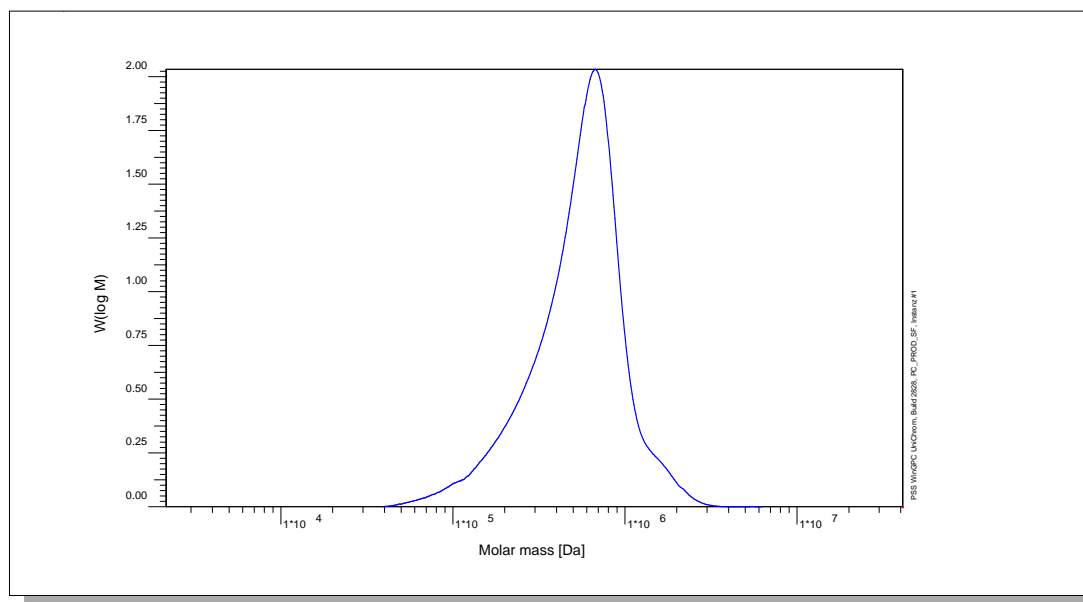


# Certificate of Analysis

Polymer type: Poly(styrene sulfonate) sodium salt  
 Part No: PSS-pss600k  
 Lot No: pss4070-2

## Molar Mass Distribution



## GPC/SEC - Conditions

|                                       |   |               |             |
|---------------------------------------|---|---------------|-------------|
| Sample concentration                  | 1,00 g/l                                    | Inject volume | 20 µl       |
| Solvent                               | Water, Disodium hydrogen phosphate 11,88g/L | Flow rate     | 1,00 ml/min |
| Precolumn [8 x 50 mm]                 | PSS MCX 10µm                                | Temperature   | 23 °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 VWD 254nm | 666000  | -       | 679000  | <1.20       |

Parent Poly(styrene) Molecular Weight: Mw [Da] = 354 000 Mn [Da] = 338 000 Mp [Da] = 361 000 PDI = 1.05

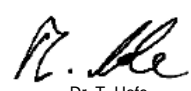
### Note:

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

The molecular weights are calculated with the factor 1.88 ( pss sodium salt / ps x 0.95 ). Degree of sulfonation > 90%.  
 (For calculation: Assumption: Degree of sulfonation is 95%).

**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

