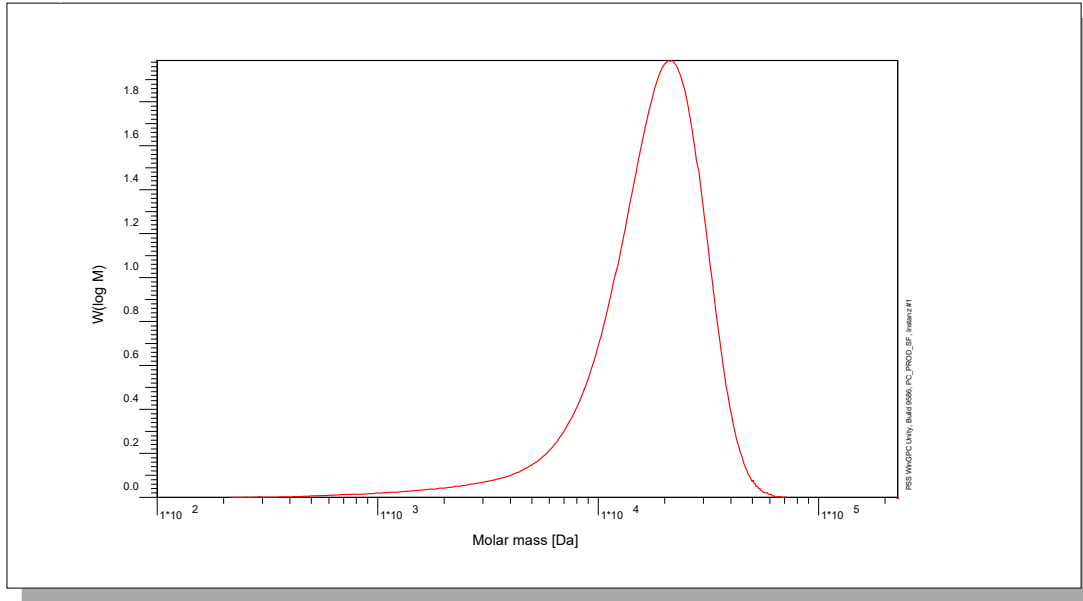


Certificate of Analysis

Polymer type: Poly(methacrylic acid) sodium salt
 Part No: PSS-pma18k
 Lot No: pma030805-2

Molar Mass Distribution



GPC/SEC - Conditions

Sample concentration	1,00 g/l	Inject volume	20 µl
Solvent	Water, Disodium hydrogen phosphate 0.067M	Flow rate	1,00 ml/min
Precolumn [8 x 50 mm]	PSS SUPREMA 10µm	Temperature	23 °C
Columns [analytical, each 8 x 300 mm]	PSS SUPREMA 10µm 100Å / 3 000Å / 3 000Å		
Data Acquisition Software	PSS WinGPC	Operator	S.Fugmann

GPC/SEC - Results

Detector	Mw [Da]	Mn [Da]	Mp [Da]	PDI [Mw/Mn]
PSS SECcurity RI	18600	-	18700	< 1.20

Parent Poly(t-butyl methacrylate) Molecular Weight: Mw [Da] = 24 500 Mn [Da] = 23 500 Mp [Da] = 24 600 PDI = 1.04

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 from the Poly(t-butyl methacrylate) standard with the factor 0.76

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

Date of expiry: yyyy/mm/dd (See also product label.)

Date of approval: yyyy/mm/dd

Manufacture and control according to PSS method of analysis



Dr. T. Hofe
production director