

# Certificate of Analysis



Agilent Technologies, Inc. acquired Polymer Standards Service GmbH (PSS) on August 01<sup>st</sup>, 2022.

The Quality Certificate / Certificate of Analysis generated by PSS attached to this Letter is valid for the Product stated in the Certificate sold to You by Agilent Technologies, Inc or its subsidiaries.

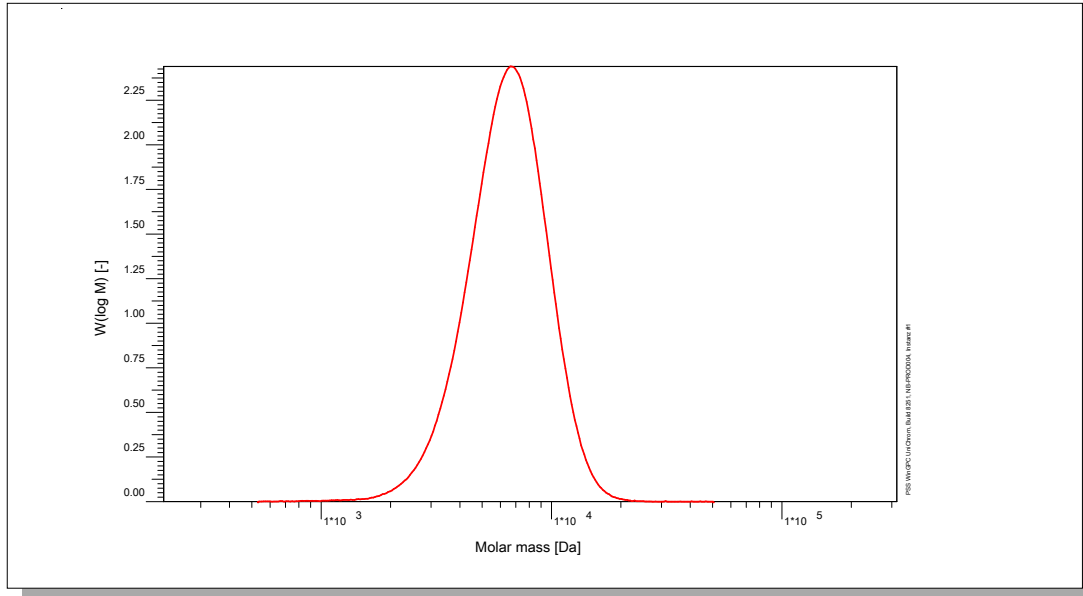
Patrick Kunzweiler

Quality Manager  
Liquid Phase Separation Division

# Certificate of Analysis

Polymer type: Pullulan  
 Part No: PSS-PUL6K  
 Lot No: P-5-4

## Molar Mass Distribution



## GPC/SEC - Conditions

Sample concentration	1,00 g/l	Inject volume	20 µl
Flow rate	1,00 ml/min	Temperature	23 °C
Solvent	Water, Sodium azide 0.5g/L		
Precolumn [8 x 50 mm]	PSS SUPREMA 10µm		
Columns [analytical, each 8 x 300 mm]	PSS SUPREMA 10µm ultrahigh / ultrahigh / ultrahigh		
Data Acquisition Software	PSS WinGPC	Operator	J.Preis

## GPC/SEC - Results

Detector	Mw [Da]	Mn [Da]	Mp [Da]	PDI [Mw/Mn]
PSS SECcurity RI	6600	6000	6300	1,09

## Additional Methods - Results

Method	Mw [Da]
Light Scattering, on-line (SLD7x00)	6700

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

Light Scattering run on-line.  
 System and instrument validation based on DIN-Pullulan Lot No: p-100di.


Sample concentration	6.9822 g/L
Inject volume	100µL
Sample dn/dc	0.149mL/g

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

**Date of expiry:** 2028/02/29 (See also product label.)

**Date of approval:** 2023/02/17

Manufacture control according to PSS method of analysis

  
 Dr. J. Preis  
 production manager

