

DIN EN ISO 13885-3:2021-11 (E)

Gel permeation chromatography (GPC) - Part 3: Water as eluent (ISO 13885-3:2020)

Contents

	Page
European foreword	4
Foreword	5
1 Scope	6
2 Normative references	6
3 Terms and definitions	6
4 Principle	7
5 Apparatus	7
5.1 Eluent supply	8
5.2 Pump	8
5.3 Injection system	8
5.4 Separation columns	8
5.5 Column temperature control	10
5.6 Detector	11
6 Reagents	11
7 Calibration of the apparatus	11
7.1 General	11
7.2 Specification for the calibration standard	11
7.3 Preparation of the calibration solutions for injection	12
7.4 Conditions for calibration runs	12
7.5 Measurement of elution volume	12
7.6 Plotting the calibration curve	12
8 Sampling	13
9 Preparation for the test	13
9.1 Preparation of the injection solution	13
9.2 Preparation of the apparatus	14
10 Analytical parameters	14
11 Data acquisition and evaluation	14
11.1 General	14
11.2 Calculation of the net chromatogram from the raw data	15
11.2.1 Determination of the baseline	15
11.2.2 Correction of the measured values and of the net chromatogram	15
11.2.3 Evaluation limits	15
11.3 Calculation of the average values	15
11.4 Calculation of the distribution curves	16
12 Precision	17
12.1 General	17
12.2 Repeatability	17
12.3 Reproducibility	17
13 Test report	18
13.1 General	18
13.2 General data on the equipment and settings	18
13.2.1 Data on the equipment used	18
13.2.2 Calibration	18
13.2.3 Evaluation	19
13.3 Special data on the sample	19

Annex A (informative) Conversion of experimental parameters for variant column sizes	20
Annex B (informative) Example of a data sheet for a polymer standard	21
Annex C (informative) Explanations	23
Bibliography	28