ISO 13885-1:2020 (E)

Gel permeation chromatography (GPC) — Part 1: Tetrahydrofuran (THF) as eluent

Contents

Foreword

1 Scope

2 Normative references

3 Terms and definitions

4 Principle

5 Apparatus

- 5.1 Eluent supply
- 5.2 Pump
- 5.3 Injection system
- 5.4 Separation columns
- 5.5 Column temperature control
- 5.6 Detector

6 Reagents

7 Calibration of the apparatus

- 7.1 General
- 7.2 Requirements for the calibration standards
- 7.3 Preparation of the calibration solutions for injection
- 7.4 Conditions for calibration runs
- 7.5 Measurement of elution volume
- 7.6 Plotting the calibration curve

8 Sampling

9 Preparation for the test

- 9.1 Preparation of the injection solution
- 9.2 Preparation of the apparatus

10 Analytical parameters

11 Data acquisition and evaluation

- 11.1 General
- 11.2 Calculation of the net chromatogram from the raw data
- 11.2.1 Determination of the baseline
- 11.2.2 Correction of the measured values and of the net chromatogram
- 11.2.3 Evaluation limits
- 11.3 Calculation of the average values
- 11.4 Calculation of the distribution curves

12 Precision

- 12.1 General
- 12.2 Repeatability
- 12.3 Reproducibility

13 Test report

- 13.1 General
- 13.2 General data on the equipment and settings

13.2.1 Data on the equipment used
13.2.2 Calibration
13.2.3 Evaluation
13.3 Special data on the sample

Annex A (informative) Conversion of experimental parameters for variant column sizes

Annex B (informative) Example of a data sheet for a polymer standard

Annex C (informative) Explanations

Page count: 23