

Gel permeation chromatography (GPC) - Part 2:
N,N-Dimethylacetamide (DMAC) as eluent (ISO
13885-2:2020)

EESTI STANDARDI EESSÕNA

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See Eesti standard EVS-EN ISO 13885-2:2021 sisaldab Euroopa standardi EN ISO 13885-2:2021 ingliskeelset teksti.	This Estonian standard EVS-EN ISO 13885-2:2021 consists of the English text of the European standard EN ISO 13885-2:2021.
Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas	This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation and Accreditation.
Euroopa standardimisorganisatsioonid on teinud Euroopa standardi rahvuslikele liikmetele kättesaadavaks 01.09.2021.	Date of Availability of the European standard is 01.09.2021.
Standard on kättesaadav Eesti Standardimis- ja Akrediteerimiskeskusest.	The standard is available from the Estonian Centre for Standardisation and Accreditation.

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Gel permeation chromatography (GPC) - Part 2: N,N-Dimethylacetamide (DMAC) as eluent (ISO 13885-2:2020)

Chromatographie par perméation de gel (GPC) - Partie 2: Eluant au N,N-Diméthylacetamide (DMAC) (ISO 13885-2:2020)

Gelpermeationschromatographie (GPC) - Teil 2: N,N-Dimethylacetamid (DMAC) als Elutionsmittel (ISO 13885-2:2020)

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European foreword

The text of ISO 13885-2:2020 has been prepared by Technical Committee ISO/TC 35 "Paints and varnishes" of the International Organization for Standardization (ISO) and has been taken over as EN ISO 13885-2:2021 by Technical Committee CEN/TC 139 "Paints and varnishes" the secretariat of which is held by DIN.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by March 2022, and conflicting national standards shall be withdrawn at the latest by March 2022.

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Endorsement notice

The text of ISO 13885-2:2020 has been approved by CEN as EN ISO 13885-2:2021 without any modification.

Contents

Page

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

Bibliography	24
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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

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Gel permeation chromatography (GPC) —

Part 2:

N,N-Dimethylacetamide (DMAC) as eluent

WARNING — This document can involve hazardous materials, operations or equipment. It does not purport to address all of the safety problems, if any, associated with its use. It is the responsibility of the user to establish appropriate safety and health practices and to ensure compliance with any national regulatory conditions.

1 Scope

This document specifies the determination of the molar-mass distribution and the average molar mass values M_n (number average) and M_w (weight average) of polymers that are soluble in DMAC (N,N-Dimethylacetamide) by gel permeation chromatography (GPC).

NOTE Also known as size exclusion chromatography (SEC).

Even though the chromatograms obtained show good repeatability, it is possible that this method cannot be used with certain polymer types because of specific interactions (e.g. adsorption) within the sample/eluent/column system.

The conditions specified in this document are not applicable to the GPC analysis of polymer samples with M_w values greater than 10^6 g/mol and/or polymers with elution limits outside the calibration range (see 7.6 and Annex C).

This document includes no correction method (e.g. for the elimination of peak broadening). If absolute molar mass values are required, an absolute method (e.g. membrane osmometry for M_n or light scattering for M_w) can be used.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 1513, *Paints and varnishes — Examination and preparation of test samples*

ISO 4618, *Paints and varnishes — Terms and definitions*

ISO 15528, *Paints, varnishes and raw materials for paints and varnishes — Sampling*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 4618 and the following apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- ISO Online browsing platform: available at <https://www.iso.org/obp>
- IEC Electropedia: available at <http://www.electropedia.org/>