

# Plasty Stanovenie schopnosti zložiek a výrobkov z polyvinylchloridu uvoľňovať chlorovodík a ďalšie kyslé produkty pri zvýšenej teplote Časť 3: Konduktometrická metóda (ISO 182-3: 2023)

**STN EN ISO 182-3** 

64 3209

Plastics - Determination of the tendency of compounds and products based on vinyl chloride homopolymers and copolymers to evolve hydrogen chloride and any other acidic products at elevated temperatures - Part 3: Conductometric method (ISO 182-3:2023)

Táto norma obsahuje anglickú verziu európskej normy. This standard includes the English version of the European Standard.

Táto norma bola oznámená vo Vestníku ÚNMS SR č. 02/24

Obsahuje: EN ISO 182-3:2023, ISO 182-3:2023

Oznámením tejto normy sa ruší STN EN ISO 182-3 (64 3209) z októbra 2001

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# EUROPEAN STANDARD NORME EUROPÉENNE EUROPÄISCHE NORM

**EN ISO 182-3** 

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# **English Version**

Plastics - Determination of the tendency of compounds and products based on vinyl chloride homopolymers and copolymers to evolve hydrogen chloride and any other acidic products at elevated temperatures - Part 3:

Conductometric method (ISO 182-3:2023)

Plastiques - Détermination de la tendance des compositions et produits à base d'homopolymères et de copolymères du chlorure de vinyle à dégager du chlorure d'hydrogène et éventuellement d'autres produits acides à températures élevées - Partie 3: Méthode conductimétrique (ISO 182-3:2023)

Kunststoffe - Bestimmung der Neigung von Formmassen und Erzeugnissen auf der Basis von Vinylchlorid-Homopolymeren und -Copolymeren, bei erhöhten Temperaturen Chlorwasserstoff und andere saure Produkte abzugeben - Teil 3: Leitfähigkeitsverfahren (ISO 182-3:2023)

This European Standard was approved by CEN on 11 December 2023.

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This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

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# EN ISO 182-3:2023 (E)

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EN ISO 182-3:2023 (E)

# **European foreword**

This document (EN ISO 182-3:2023) has been prepared by Technical Committee ISO/TC 61 "Plastics" in collaboration with Technical Committee CEN/TC 249 "Plastics" the secretariat of which is held by SIS.

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 June 2024, and conflicting national standards shall be withdrawn at the latest by June 2024.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN shall not be held responsible for identifying any or all such patent rights.

This document supersedes EN ISO 182-3:2000.

Any feedback and questions on this document should be directed to the users' national standards body/national committee. A complete listing of these bodies can be found on the CEN website.

According to the CEN-CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Türkiye and the United Kingdom.

## **Endorsement notice**

The text of ISO 182-3:2023 has been approved by CEN as EN ISO 182-3:2023 without any modification.

# INTERNATIONAL STANDARD

ISO 182-3

Second edition 2023-12

Plastics — Determination of the tendency of compounds and products based on vinyl chloride homopolymers and copolymers to evolve hydrogen chloride and any other acidic products at elevated temperatures —

Part 3:

# **Conductometric method**

Plastiques — Détermination de la tendance des compositions et produits à base d'homopolymères et de copolymères du chlorure de vinyle à dégager du chlorure d'hydrogène et éventuellement d'autres produits acides à températures élevées —

Partie 3: Méthode conductimétrique





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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 document should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see <a href="www.iso.org/directives">www.iso.org/directives</a>).

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This document was prepared by Technical Committee ISO/TC 61, *Plastics*, Subcommittee SC 9, *Thermoplastic materials*, in collaboration with the European Committee for Standardization (CEN) Technical Committee CEN/TC 249, *Plastics*, in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

This second edition cancels and replaces the first edition (ISO 182-3:1993), which has been technically revised.

The main changes are as follows:

adding the use of alternative heating baths such as metal blocks.

A list of all parts in the ISO 182 series can be found on the ISO website.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at <a href="https://www.iso.org/members.html">www.iso.org/members.html</a>.

# Plastics — Determination of the tendency of compounds and products based on vinyl chloride homopolymers and copolymers to evolve hydrogen chloride and any other acidic products at elevated temperatures —

# Part 3:

# **Conductometric method**

WARNING — The use of this document can involve hazardous materials, operations and equipment. This document does not purport to address all of the safety problems associated with its use. It is the responsibility of the user of this document to establish appropriate safety and health practices and determine the applicability of regulatory limitations prior to use.

# 1 Scope

- **1.1** This document specifies a method for the determination of the thermal stability at elevated temperature of compounds and products based on vinyl chloride homopolymers and copolymers (in the following text abbreviated as PVC) which undergo dehydrochlorination (the evolution of hydrogen chloride).
- **1.2** This document is applicable to the characterization of PVC compounds and products, especially with regard to the effectiveness of their heat-stabilizing systems.

It is applicable to coloured PVC compounds and products where a discolouration test under the action of heat may be unsatisfactory.

**1.3** This document is applicable to compounded PVC materials and products. It can be applicable to polymers in powder form under appropriate conditions, to be agreed upon between the interested parties.

This document does not apply to PVC compounds in the form of dry blends, since such materials can be not sufficiently homogeneous.

- **1.4** This document does not apply to PVC compounds and products which evolve other decomposition products, in addition to hydrogen chloride, at elevated temperatures that can affect the conductivity of water when they are absorbed into it. In this case, a method suitable for the determination of chloride ion (Cl<sup>-</sup>) in the absorbing solution shall be used (see ISO 182-4<sup>[2]</sup>).
- **1.5** This document can also be applied to other plastics materials which can evolve hydrogen chloride or other hydrogen halides when heated under the conditions prescribed by the relevant specifications, or as agreed upon between the interested parties.

#### 2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 565, Test sieves — Metal wire cloth, perforated metal plate and electroformed sheet — Nominal sizes of openings

ISO 4793, Laboratory sintered (fritted) filters — Porosity grading, classification and designation ISO 6353-2, Reagents for chemical analysis — Part 2: Specifications — First series

koniec náhľadu – text ďalej pokračuje v platenej verzii STN