

SLOVENSKI STANDARD SIST EN ISO 24197:2023

01-januar-2023

Hlapni proizvodi - Ugotavljanje mase izhlapele e-tekočine in mase zbranega aerosola (ISO 24197:2022)

Vapour products - Determination of e-liquid vaporised mass and aerosol collected mass (ISO 24197:2022)

Dampfprodukte- Bestimmung verdampfter E-Liquid-Masse und gesammelter Aerosolmasse (ISO 24197:2022)

Produits de vapotage - Détermination de la masse de e-liquide vaporisé et de la masse d'aérosol collecté (ISO 24197:2022)

Ta slovenski standard je istoveten z: EN ISO 24197:2022

ICS:

65.160 Tobak, tobačni izdelki in

oprema

Tobacco, tobacco products and related equipment

SIST EN ISO 24197:2023 en,fr,de

SIST EN ISO 24197:2023

iTeh STANDARD PREVIEW (standards.iteh.ai)

SIST EN ISO 24197:2023

EUROPEAN STANDARD NORME EUROPÉENNE EUROPÄISCHE NORM **EN ISO 24197**

November 2022

ICS 65.160

English Version

Vapour products - Determination of e-liquid vaporised mass and aerosol collected mass (ISO 24197:2022)

Produits de vapotage - Détermination de la masse de eliquide vaporisé et de la masse d'aérosol collecté (ISO/FDIS 24197:2022) Dampfprodukte- Bestimmung verdampfter E-Liquid-Masse und gesammelter Aerosolmasse (ISO/FDIS 24197:2022)

This European Standard was approved by CEN on 14 November 2022.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CEN member.

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.

CEN members are the national standards bodies of 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 United Kingdom.

.iteh.ai/catalog/standards/sist/d5267b5f-7105-4894-91db



EUROPEAN COMMITTEE FOR STANDARDIZATION COMITÉ EUROPÉEN DE NORMALISATION EUROPÄISCHES KOMITEE FÜR NORMUNG

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

EN ISO 24197:2022 (E)

Contents	Pag	e
Euronean foreword		3

iTeh STANDARD PREVIEW (standards.iteh.ai)

European foreword

This document (EN ISO 24197:2022) has been prepared by Technical Committee ISO/TC 126 "Tobacco and tobacco products" in collaboration with Technical Committee CEN/TC 437 "Electronic cigarettes and e-liquids" the secretariat of which is held by AFNOR.

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 May 2023, and conflicting national standards shall be withdrawn at the latest by May 2023.

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.

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 24197:2022 has been approved by CEN as EN ISO 24197:2022 without any modification.

SIST EN ISO 24197:2023

iTeh STANDARD PREVIEW (standards.iteh.ai)

SIST EN ISO 24197:2023

SIST EN ISO 24197:2023

INTERNATIONAL STANDARD

ISO 24197

First edition 2022-11

Vapour products — Determination of e-liquid vaporised mass and aerosol collected mass

Produits de vapotage — Détermination de la masse de e-liquide vaporisé et de la masse d'aérosol collecté

iTeh STANDARD PREVIEW (standards.iteh.ai)

SIST EN ISO 24197:2023

https://standards.iteh.ai/catalog/standards/sist/d5267b5f-7105-4894-91db-fabf734bb477/sist-en-iso-24197-2023



Reference number ISO 24197:2022(E)

iTeh STANDARD PREVIEW (standards.iteh.ai)

SIST EN ISO 24197:2023
https://standards.iteh.ai/catalog/standards/sist/d5267b5f-7105-4894-91db-fabf734bb477/sist-en-iso-24197-2023



COPYRIGHT PROTECTED DOCUMENT

© ISO 2022

All rights reserved. Unless otherwise specified, or required in the context of its implementation, no part of this publication may be reproduced or utilized otherwise in any form or by any means, electronic or mechanical, including photocopying, or posting on the internet or an intranet, without prior written permission. Permission can be requested from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office CP 401 • Ch. de Blandonnet 8 CH-1214 Vernier, Geneva Phone: +41 22 749 01 11 Email: copyright@iso.org Website: www.iso.org

Published in Switzerland

Contents		Page
Fore	reword	iv
Intr	troduction	v
1	Scope	1
2	Normative references	1
3	Terms and definitions	
4	Principle	
5	Apparatus	
6	Procedure 6.1 General 6.2 Preparation 6.2.1 Vapour products 6.2.2 Filter pad handling 6.2.3 Aerosol trapping 6.2.4 Puff volume check 6.2.5 Handling of aerosol samples 6.3 Determination of e-liquid vaporised mass (EVM) 6.4 Determination of aerosol collected mass (ACM) 6.5 Specific mass determination of puff blocks	
7	Repeatability and reproducibility 7.1 General 7.2 Results from the interlaboratory study 2015 (Study 1) 7.3 Results from the interlaboratory study 2019 (Study 2)	5
8	Test report SIST EN ISO 24107:2022	6
	nex A (informative) Trapping efficiency and and sist d5267b5f-7105-4894-910	
Ann	nex B (normative) Glass fibre filter pad specifications	10
Bibl	bliography	11

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).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT), see www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 126, *Tobacco and tobacco products*, Subcommittee SC 3, *Vape and vapour products*, in collaboration with the European Committee for Standardization (CEN) Technical Committee CEN/TC 437, *Electronic cigarettes and related e-liquids*, in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

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 www.iso.org/members.html.

Introduction

Technical investigation of vapour products requires determining aerosol collected mass (ACM) and e-liquid vaporized mass (EVM) measurements in emissions. Therefore, there is a necessity to have an International Standard in place to get reliable/comparable data on ACM and EVM in electronic cigarette emissions.

The method in this document is based upon the CORESTA recommended method (CRM) 84,^[1] which was written on the basis of the results obtained from interlaboratory studies conducted in 2015^[2] and 2019^[3] involving 18 and 11 laboratories, respectively.

This document has been developed to describe the procedures used to measure the amount of ACM and EVM in the aerosol from vapour products utilizing a gravimetric method. The experimental design parameters [4][5] used to collect the aerosolised vapour should be evaluated and documented for each analysis.

iTeh STANDARD PREVIEW (standards.iteh.ai)