



**International
Standard**

ISO 5501-1

**Tobacco heating systems —
Definitions and standard conditions
for aerosol generation and
collection —**

**Part 1:
Electrically heated tobacco
products (eHTPs)**

*Systèmes de chauffage du tabac — Définitions et conditions
normalisées pour la génération et la collecte d'aérosol —*

Partie 1: Produits de tabac chauffés électriquement (PTCe)

**First edition
2024-05**

iTeh Standards
(<https://standards.iteh.ai>)
Document Preview

[ISO 5501-1:2024](https://standards.iteh.ai/catalog/standards/iso/f55a6508-0e41-44ab-b531-b80b4164ef80/iso-5501-1-2024)

<https://standards.iteh.ai/catalog/standards/iso/f55a6508-0e41-44ab-b531-b80b4164ef80/iso-5501-1-2024>



COPYRIGHT PROTECTED DOCUMENT

© ISO 2024

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

Foreword	iv
Introduction	v
1 Scope	1
2 Normative references	1
3 Terms and definitions	1
4 Standard conditions	3
4.1 Machine pressure drop.....	3
4.2 Puff duration.....	3
4.3 Puff volume.....	4
4.4 Puff frequency.....	4
4.5 Puff profile.....	4
4.6 Puff number.....	4
5 Specification of the machine	5
5.1 General.....	5
5.2 Operating principle and puff profile.....	5
5.3 Reliability and compensation.....	5
5.4 THS holder.....	5
5.5 Aerosol traps.....	5
5.6 Sample conditioning and handling.....	8
5.7 Test atmosphere.....	8
5.8 THD preparation.....	8
5.9 Vent blocking.....	8
5.10 Initiation of collection.....	8
5.11 Termination of collection.....	8
5.12 Device error or malfunction.....	9
Bibliography	10

[ISO 5501-1:2024](https://standards.iteh.ai/catalog/standards/iso/f55a6508-0e41-44ab-b531-b80b4164ef80/iso-5501-1-2024)

<https://standards.iteh.ai/catalog/standards/iso/f55a6508-0e41-44ab-b531-b80b4164ef80/iso-5501-1-2024>

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 www.iso.org/directives).

ISO draws attention to the possibility that the implementation of this document may involve the use of (a) patent(s). ISO takes no position concerning the evidence, validity or applicability of any claimed patent rights in respect thereof. As of the date of publication of this document, ISO had not received notice of (a) patent(s) which may be required to implement this document. However, implementers are cautioned that this may not represent the latest information, which may be obtained from the patent database available at www.iso.org/patents. ISO shall not be held responsible for identifying any or all such patent rights.

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*.

A list of all parts in the ISO 5501 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 www.iso.org/members.html.

ISO 5501-1:2024

<https://standards.iteh.ai/catalog/standards/iso/f55a6508-0e41-44ab-b531-b80b4164ef80/iso-5501-1-2024>

Introduction

Tobacco heating systems (THS) are designed to heat a tobacco substrate, to produce a nicotine-containing aerosol without the combustion of the tobacco substrate. A THS is a combination of a heated tobacco product (HTP) and a tobacco heating device (THD). The HTP part of the THS is a product containing a tobacco substrate that is designed to be heated and not combusted.

With the emerging development and commercialisation of HTPs, there are a number of different approaches to heating the HTP, categorised as electrically, aerosol and carbon, HTPs; eHTP, aHTP and cHTP, respectively (see ISO 6080).

This document has been developed to define and specify the requirements for an electrically heated tobacco product (eHTP) puffing regime in order to generate and collect aerosol for subsequent analytical measurement in a robust and reproducible manner.

No machine puffing regime can represent all human use behaviour, so dependent on the testing requirement it might be appropriate to test eHTPs differently according to their design, or under conditions of different intensity to reflect the range of human behaviour.

Machine testing is useful to characterize emissions for device development and regulatory purposes and may be used as inputs for product hazard assessment; however, it is not intended to be nor is it valid as a measure of human exposure or risk.

NOTE This document is a reference document for ISO standards on tobacco heating systems (e.g. ISO 5501). Regulation and standardisation are independent from each other, and standardisation does not pre-empt regulation.

iTeh Standards
(<https://standards.iteh.ai>)
Document Preview

[ISO 5501-1:2024](https://standards.iteh.ai/catalog/standards/iso/f55a6508-0e41-44ab-b531-b80b4164ef80/iso-5501-1-2024)

<https://standards.iteh.ai/catalog/standards/iso/f55a6508-0e41-44ab-b531-b80b4164ef80/iso-5501-1-2024>

