

Nederlandse norm

# NEN-ISO 7210

(en)

Rookmachine voor routinematig analytisch  
onderzoek van sigaretten - Aanvullende  
beproevingmethoden voor machine verificatie  
(ISO 7210:2018,IDT)

Routine analytical cigarette smoking machine -  
Additional test methods for machine verification  
(ISO 7210:2018,IDT)

Vervangt NEN-ISO 7210:2013

ICS 65.160  
oktober 2018

Als Nederlandse norm is aanvaard:

- ISO 7210:2018, IDT

Normcommissie 370126 'Tabak (N) tabaksproducten'



**THIS PUBLICATION IS COPYRIGHT/PROTECTED**

**DEZE PUBLICATIE IS AUTEURSRECHTELIJK BESCHERMD**

Apart from exceptions provided by the law, nothing from this publication may be duplicated and/or published by means of photocopy, microfilm, storage in computer files or otherwise, which also applies to full or partial processing, without the written consent of the Royal Netherlands Standardization Institute.

The Royal Netherlands Standardization Institute shall, with the exclusion of any other beneficiary, collect payments owed by third parties for duplication and/or act in and out of law, where this authority is not transferred or falls by right to the Reproduction Rights Foundation.

Auteursrecht voorbehouden. Behoudens uitzondering door de wet gesteld mag zonder schriftelijke toestemming van het Koninklijk Nederlands Normalisatie-instituut niets uit deze uitgave worden verveelvoudigd en/of openbaar gemaakt door middel van fotokopie, microfilm, opslag in computerbestanden of anderszins, hetgeen ook van toepassing is op gehele of gedeeltelijke bewerking.

Het Koninklijk Nederlands Normalisatie-instituut is met uitsluiting van ieder ander gerechtigd de door derden verschuldigde vergoedingen voor verveelvoudiging te innen en/of daartoe in en buiten rechte op te treden, voor zover deze bevoegdheid niet is overgedragen c.q. rechtens toekomt aan de Stichting Reprorecht.

Although the utmost care has been taken with this publication, errors and omissions cannot be entirely excluded. The Royal Netherlands Standardization Institute and/or the members of the committees therefore accept no liability, not even for direct or indirect damage, occurring due to or in relation with the application of publications issued by the Royal Netherlands Standardization Institute.

Hoewel bij deze uitgave de uiterste zorg is nagestreefd, kunnen fouten en onvolledigheden niet geheel worden uitgesloten. Het Koninklijk Nederlands Normalisatie-instituut en/of de leden van de commissies aanvaarden derhalve geen enkele aansprakelijkheid, ook niet voor directe of indirecte schade, ontstaan door of verband houdend met toepassing van door het Koninklijk Nederlands Normalisatie-instituut gepubliceerde uitgaven.

Preview

Copyright

---

---

**Routine analytical cigarette-smoking  
machine — Additional test methods  
for machine verification**

*Machine à fumer analytique de routine pour cigarettes — Méthodes  
d'essais complémentaires pour la vérification de la machine*



Copyright  
Preview

**COPYRIGHT PROTECTED DOCUMENT**

© ISO 2018

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  
Fax: +41 22 749 09 47  
Email: [copyright@iso.org](mailto:copyright@iso.org)  
Website: [www.iso.org](http://www.iso.org)

Published in Switzerland

# Contents

Page

<b>Foreword</b> .....	<b>iv</b>
<b>1 Scope</b> .....	<b>1</b>
<b>2 Normative references</b> .....	<b>1</b>
<b>3 Terms and definitions</b> .....	<b>1</b>
<b>4 Determination of pressure drop</b> .....	<b>2</b>
4.1 Principle.....	2
4.2 Apparatus.....	2
4.3 Test atmosphere.....	3
4.4 Procedure.....	4
4.4.1 General.....	4
4.4.2 Testing.....	4
4.5 Expression of results.....	4
<b>5 Determination of significant puff profile parameters</b> .....	<b>4</b>
5.1 Principle.....	4
5.2 Apparatus.....	4
5.2.1 General.....	4
5.2.2 System A.....	5
5.2.3 System B.....	5
5.2.4 Requirements for both systems.....	6
5.2.5 Expression of results.....	6
<b>6 Verification of restricted smoking</b> .....	<b>6</b>
6.1 Principle.....	6
6.2 Apparatus.....	6
6.3 Procedure.....	6
6.4 Expression of results.....	7
<b>7 Soap film bubble flowmeter for the determination of the puff volume</b> .....	<b>7</b>
7.1 General.....	7
7.2 Principle.....	7
7.3 Apparatus.....	8
7.3.1 Glass burette.....	8
7.3.2 Bubble generation.....	8
7.3.3 Bubble positioning.....	8
7.3.4 Wetting.....	9
7.3.5 Detergent solution.....	9
7.4 Procedure.....	9
7.4.1 Preparation.....	9
7.4.2 Performing a measurement.....	9

## 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](http://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](http://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 the following URL: [www.iso.org/iso/foreword.html](http://www.iso.org/iso/foreword.html).

This document was prepared by Technical Committee ISO/TC 126, *Tobacco and tobacco products*, Subcommittee SC 1, *Physical and dimensional tests*.

This fourth edition cancels and replaces the third edition (ISO 7210:2013), which has been technically revised.

The main changes to the previous edition are as follows:

- the requirements given by the more intense smoking regime described in ISO 20778 have been included;
- a description for a soap film bubble flowmeter for the determination of the puff volume has been added.

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](http://www.iso.org/members.html).

# ALTIJD DE ACTUELE NORM IN UW BEZIT HEBBEN?

Nooit meer zoeken in de systemen en uzelf de vraag stellen:  
“Is NEN-ISO 7210:2018 en de laatste versie?”™

Via het digitale platform NEN Connect heeft u altijd toegang tot de meest actuele versie van deze norm. Vervallen versies blijven ook beschikbaar. **U en uw collega's** kunnen de norm via NEN Connect makkelijk raadplagen, online en offline.

Kies voor slimmer werken en bekijk onze mogelijkheden op [www.nenconnect.nl](http://www.nenconnect.nl).

## Heeft u vragen?

Onze Klantenservice is bereikbaar maandag tot en met vrijdag, van 8.30 tot 17.00 uur.

Telefoon: 015 2 690 391

E-mail: [klantenservice@nen.nl](mailto:klantenservice@nen.nl)

