

First edition
2010-09-15

AMENDMENT 1
2016-07-01

**Standard test method for assessing
the ignition propensity of cigarettes**

AMENDMENT 1

*Méthode d'essai normalisée pour évaluer le potentiel incendiaire des
cigarettes*

AMENDEMENT 1

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Reference number
ISO 12863:2010/Amd.1:2016(E)

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Ch. de Blandonnet 8 • CP 401
CH-1214 Vernier, Geneva, Switzerland
Tel. +41 22 749 01 11
Fax +41 22 749 09 47
copyright@iso.org
www.iso.org

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Amendment 1 to ISO 12863:2010 was prepared by Technical Committee ISO/TC 92, *Fire safety*, Subcommittee SC 1, *Fire initiation and growth*.

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Standard test method for assessing the ignition propensity of cigarettes

AMENDMENT 1

Page 2, Clause 4

Insert the following new paragraph below the first paragraph:

“For use of semi-automated/fully automated systems to perform the test, see Annex F.”

New pages 19 – 21, Annex F

Insert the new Annex F.

Annex F (informative)

Use of semi-automated/fully automated systems to perform the test

F.1 General

Beside the manual procedure to perform the test as described in the normative part of this International Standard, the test could also be performed using automated or semi-automated instruments. Due to the nature of these instruments some clauses regarding the test apparatus and the procedure itself, handling and preparation of the test specimens as well as the handling and conditioning of the materials become possibly different. These differences are described within this Annex.

F.2 Acceptance criteria for testing cigarettes with alternate test protocols

The evaluation of cigarettes using a semi- or fully automated system shall produce results that are not statistically distinguishable from those obtained using the protocol in the normative part of this International Standard. Furthermore, the repeatability of the alternate test protocol shall be no worse than the repeatability obtained using the protocol in the normative part of this International Standard.

F.3 Possible apparatus modifications

F.3.1 Limits to modifications

When using a semi- or fully automated apparatus it is essential that the fundamental principles of the test are not compromised. The basic dimensions and construction parameters of the holder for the filter paper substrate, metal rim, and test chamber remain essentially unchanged. The test chamber may include additional components to automate the process as long as these components do not influence the outcome of the test.

F.3.2 Test chamber (reference to 5.3)

The fundamental construction of the test chamber remains the same, and the test chamber shall be closed during a determination except for the chimney opening; however in a fully automatic system the front wall of the test chamber need not be a hinged door. In addition, the test chamber should be supported in an appropriate manner, but may not require the use of four feet, one at each corner.

F.3.3 Substrate holder in a fully automated system (reference to 5.4)

A fully automatic system may employ other formats of substrate handling (i.e. another substrate holder with suitable substrates), such as bobbins/reels if shown to produce results equivalent to the 150 mm diameter circles described in the manual test (7.3).

F.3.4 Cigarette holder (reference to 5.6)

Automated devices may employ a gripper type system to hold the cigarette during the lighting process and for transporting the lit cigarette to the substrate but shall not crush or deform the cigarette in any way.

NOTE The gripper will temporarily deform the cigarette, as do a person's fingers.

F.4 Test specimens

F.4.1 Handling of test specimen (reference to 7.1)

Any automated device used to grip the test cigarettes or transport the filter paper shall be made of non-hygroscopic, inert materials to mitigate incidental contamination of the test materials.

F.4.2 Marking of test specimen (reference to 5.7 and 7.2.3)

The normative part of this International Standard specifies that the cigarette test specimens are marked (5 ± 1) mm and (15 ± 1) mm from the end of the cigarette that will be lit. In the case of automated systems using a sensor technology system, such might not be needed.

F.5 Test procedure

F.5.1 General

Several steps in the test procedure may be different when using an automated system without impacting the outcome of the test. In particular, the following steps may differ.

F.5.2 (reference to 9.2)

Covering and uncovering of the chimney of the test chamber may be done automatically.

F.5.3 (reference to 9.5)

When an automated system is used, the cigarette may be held by a gripping device. Such a device shall have no impact on the outcome of the test.

F.5.4 (reference to 9.6)

F.5.4.1 Application of automated lighting systems might mitigate the necessity to rotate the cigarette during the ignition process.

F.5.4.2 The limitation on the number of test cigarettes that can be in process is eliminated as the operator is freed from monitoring the pre-burn stage.

F.5.5 (reference to 9.7)

When an automated system is used, the test cigarette may be lit within the test chamber, as long as the ignition process does not affect the substrate. Any effect on the test environment shall be dissipated prior to placing the cigarette on the substrate.

F.5.6 (reference to 9.11, 9.12 and 9.13)

When the burn to the 15 mm distance is detected, the transport of the test specimen within the test chamber is managed by the automated device to position the non-ignited end of the test specimen on top of the substrate between appropriately sized cigarette anti-roll pins or other automated means.

F.5.7 [reference to 3.2 and 9.15 a)]

Full length burn: In some automated systems the point of full length burn for non-filter tip cigarettes is not related to the length of the metal pins but set to $17 \text{ mm} \pm 1 \text{ mm}$ from the unlit end of the test cigarette.

F.5.8 (reference to 9.16)

After the automated system determines the test cigarette has ceased burning, the system may open the test chamber door automatically to allow air to circulate throughout its volume.

Page 19, Bibliography

Move the bibliography to page 22.

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