

ISO/TC 61

Secretariat: **ANSI**

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2005-07-19

Lighters — Safety specification

AMENDMENT 2: Clarification of test procedures

Briquets — Spécifications de sécurité

AMENDEMENT 2: Clarification des modes opératoires

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Please see the administrative notes on page iii

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Reference number
ISO 9994:2002/FDAM 2:2005(E)

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ISO/CEN PARALLEL PROCESSING

The CEN Secretary-General has advised the ISO Secretary-General that this final draft Amendment covers a subject of interest to European standardization. In accordance with the ISO-lead mode of collaboration as defined in the Vienna Agreement, this final draft is hereby submitted to a parallel two-month FDAM vote in ISO and a four-month formal vote in CEN.

Positive votes shall not be accompanied by comments.

Negative votes shall be accompanied by the relevant technical reasons.

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Foreword

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International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

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.

Amendment 2 to ISO 9994:2002 was prepared by Technical Committee ISO/TC 61, *Plastics*.

Note that this Amendment, together with Amendment 1, *Safety symbols*, will be incorporated in the existing edition of ISO 9994 (ISO 9994:2002) after the FDAM ballot and a new edition of ISO 9994 published.

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Lighters — Safety specification

AMENDMENT 2: Clarification of test procedures

NOTE For the purposes of clarity, changes are indicated by grey background and/or strikethrough, as appropriate.

Page 2, 2.13

Replace the existing term and definition by the following:

flame height

linear distance from the tip of the visible flame to the top of the shield or, in the absence of a shield, from the tip of the visible flame to the bottom of the **exposed wick** or **the top of the burner valve orifice**

Page 5, 3.3.2

Replace the existing subclause by the following:

3.3.2 On lighters whose adjusting mechanisms conform to 3.3.3 and 3.3.4, the direction of movement shall be permanently imprinted or engraved on the lighter in the vicinity of the adjusting mechanism and readily visible and understandable.

Page 7

Add the following new subclause after 4.2.2:

4.2.3 Lighters that meet the requirements of 4.2.1 and 4.2.2 and that are able to be ignited in the intended manner shall be capable of meeting all applicable requirements of clause 3. Lighters that are not able to be ignited in the intended manner do not constitute a failure.

Page 8, 4.5.2

Replace the existing subclause by the following:

4.5.2 Lighters that meet this requirement, ... the applicable requirements of clause 3. **Lighters that are not able to be ignited in the intended manner do not constitute a failure.**

Page 8, 4.7.1

Replace the existing subclause by the following:

4.7.1 The following types of lighter shall be capable of withstanding a burning time of 5 s ~~in any hand-held attitude~~ when held in a position such that the top of the wick, or burner valve orifice, is at an angle 45° below the horizontal (see Figure 4), without evidence of any burning or distortion of components so as to cause a hazardous condition:

- ~~a) fluid lighters;~~
- ~~b) non-adjustable gas lighters at their permanently set flame heights;~~
- a) adjustable gas lighters, with the flame height set at maximum.

Page 8, 4.8

Replace the last paragraph by the following:

Lighters that meet this requirement, and that are still able to be ignited in the intended manner, shall subsequently be capable of meeting all applicable requirements of clause 3. ~~Lighters that are not able to be ignited in the intended manner do not constitute a failure.~~

Page 9, Figure 4

Replace the existing figure title by the following:

Figure 4 — Position of the lighters for the burning tests described in 4.7.1 and 4.7.2

Page 11, 5.4.2.6

Replace the first line by the following:

Measure and record the time of any burning occurring after the extinguishing action.

Page 11, 5.5.1

Replace the first line by the following:

The purpose of this test is to determine whether lighter components ... deteriorate in any fashion or result in fuel leakage as specified in this test.

Page 12, 5.5.2.2.3

Delete this subclause. 5.5.2.2.4 then becomes 5.5.2.2.3.

Page 12, 5.5.3.1

Following the existing 5.5.3.1.1, insert a new subclause as follows:

5.5.3.1.2 Ignite the specimens in the intended manner to ensure the lighters are operable.

Existing 5.5.3.1.2 to 5.5.3.1.9 then become 5.5.3.1.3 to 5.5.3.1.10.

Replace the old 5.5.3.1.2 (now 5.5.3.1.3) by the following:

5.5.3.1.3 Place the extinguished specimens in the container, with their covers and closures in the open position.

Following the old 5.5.3.1.9 (now 5.5.3.1.10), insert a new subclause as follows:

5.5.3.1.11 Check visually for liquid fuel leakage with lighters in all orientations.

Failure: Any leakage constitutes a failure.

Existing 5.5.3.1.10 to 5.5.3.1.12 then become 5.5.3.1.12 to 5.5.3.1.14.

Pages 12 and 13, 5.5.3.2

Replace the existing 5.5.3.2.2 by the following:

5.5.3.2.2 Ignite each specimen briefly to ensure it is not empty of fuel, and place the extinguished specimens in the enclosure for 28 days.

Replace the existing 5.5.3.2.6 by the following:

5.5.3.2.6 All lighters that are able to be ignited in the intended manner shall subsequently meet all requirements of clause 3. Lighters that are not able to be ignited in the intended manner do not constitute a failure.

Move this subclause above the last line in 5.5.3.2.5, correcting this line to read: "If the lighter fuel reservoir is not transparent, proceed to 5.5.3.2.7."

Following the existing 5.5.3.2.7, insert a new subclause as follows:

5.5.3.2.8 All lighters that are able to be ignited in the intended manner shall subsequently meet all requirements of clause 3. Lighters that are not able to be ignited in the intended manner do not constitute a failure.

Existing 5.5.3.2.8 then becomes 5.5.3.2.9.

Page 16, 5.9.2.3

Replace the existing subclause by the following:

5.9.2.3 **Balance**, having a sensitivity of 0,1 mg if gas escape is measured over an elapsed time of 1 min, or 1 mg if gas escape is measured over an elapsed time of 10 min.

Page 16 and 17, 5.9.3

Replace 5.9.3.2 by the following:

5.9.3.2 Ignite each specimen briefly to ensure it is not empty of fuel, and place the extinguished specimens in the enclosure for at least 4 h.

Following the existing 5.9.3.4, insert a new subclause as follows:

5.9.3.5 Fluid lighters that are able to be ignited in the intended manner shall subsequently meet all the requirements of clause 3. Fluid lighters that cannot be ignited in the intended manner do not constitute a failure.

Existing 5.9.3.5 then becomes 5.9.3.6.

Replace the old 5.9.3.6 (now 5.9.3.7) by the following:

5.9.3.7 Gas lighters that are able to be ignited in the intended manner shall subsequently meet the requirements of clause 3. Gas lighters that are not able to be ignited in the intended manner do not constitute a failure.

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Move this subclause above the last line in the previous subclause, correcting this line to read: “If the lighter fuel reservoir is not transparent, proceed to 5.9.3.8.”

Existing 5.9.3.7 then becomes 5.9.3.8.

Replace the old 5.9.3.8 by the following:

5.9.3.9 Gas lighters that are able to be ignited in the intended manner shall subsequently meet all the requirements of clause 3. Gas lighters that are not able to be ignited in the intended manner do not constitute a failure.

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