SLOVENSKI STANDARD
SIST EN ISO 9994:2004

01-januar-2004

Nadomeġļa:
SIST EN ISO 9994:2001

Vžigalniki - Varnostna specifikacija (ISO 9994:2002)

Lighters - Safety specification (ISO 9994:2002)

Feuerzeuge - Festlegungen für die Sicherheit (ISO 9994:2002)

Briquets - Spécifications de sécurité (ISO 9994:2002)

Ta slovenski standard je istoveten z: EN ISO 9994:2002

ICS:

97.180	Razna oprema za dom in trgovino	Miscellaneous domestic and commercial equipment

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Lighters - Safety specification (ISO 9994:2002)

Briquets - Spécifications de sécurité (ISO 9994:2002)

Feuerzeuge - Festlegungen für die Sicherheit (ISO 9994:2002)

This European Standard was approved by CEN on 25 February 2002.

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 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 Management Centre has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Malta, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.

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

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Foreword

This document (ISO 9994:2002) has been prepared by Technical Committee ISO/TC 61 "Plastics", the secretariat of which is held by CMC.

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of an identical text or by endorsement, at the latest by September 2002, and conflicting national standards shall be withdrawn at the latest by September 2002.

This document supersedes EN ISO 9994:1996.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Malta, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom.

Endorsement notice

The text of the International Standard ISO 9994:2002 has been approved by CEN as a European Standard without any modifications.

INTERNATIONAL STANDARD

ISO 9994

Third edition
2002-03-15

Lighters — Safety specification

Briquets — Spécifications de sécurité

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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.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 3.

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 International Standard may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

International Standard ISO 9994 was prepared by Technical Committee ISO/TC 61, *Plastics*.

This third edition cancels and replaces the second edition (ISO 9994:1995). Other than editorial changes made for purposes of clarification, and changes in format now required by ISO, there are a number of technical changes as follows.

a) The maximum flame height for adjustable postmixing burner gas lighters has been reduced.

b) Requirements for premixing burner gas lighters have been added to the standard. This type of lighter is sometimes referred to as a “catalytic” lighter.

c) In the elevated-temperature test, the temperature has been increased and the controlled water bath has been deleted.

d) The direction for flame height adjustment is now required to be permanently imprinted or engraved on the lighter.

e) In the fuel compatibility test and the elevated-temperature test, a lighter empty of fuel is considered a failure.

This International Standard reproduces the technical content of ASTM/ANSI F 400-97.

Annex A of this International Standard is for information only.

Lighters — Safety specification

1 Scope

This International Standard establishes requirements for lighters to ensure a reasonable degree of safety for normal use or reasonably foreseeable misuse of such lighters by users.

The safety specification given in this International Standard applies to all flame-producing products commonly known as cigarette lighters, cigar lighters and pipe lighters. It does not apply to matches, nor does it apply to other flame-producing products intended solely for igniting materials other than cigarettes, cigars, and pipes.

Lighters, being flame-producing devices, can, as do all flame sources, present a potential hazard to users. The safety specification given in this International Standard cannot eliminate all hazards, but is intended to reduce potential hazards to users.

2 Terms and definitions

For the purposes of this International Standard, the following terms and definitions apply.

2.1
lighter
manually operated flame-producing device, employing a petrochemical derivative as a fuel, normally used for deliberately igniting cigarettes, cigars and pipes, and which may foreseeably be used to ignite materials such as paper, wicks, candles and lanterns

NOTE Lighters are specifically not intended for use as candles or as flashlights, or for other uses requiring an extended burn time.

2.2
fluid lighter
lighter, with an exposed wick, that employs as fuel liquid hydrocarbons such as hexane whose gauge vapour pressure at 24 °C does not exceed 34,5 kPa

2.3
gas lighter
lighter that employs as fuel liquefied hydrocarbons such as *n*-butane, isobutane and propane whose gauge vapour pressure at 24 °C exceeds 104 kPa

2.4
postmixing burner lighter
gas lighter in which fuel is supplied for combustion and air is supplied at the point of combustion

2.5
premixing burner lighter
gas lighter in which fuel and air are mixed before being supplied for combustion

2.6
disposable lighter
lighter marketed with an integral supply of fuel and that is not intended to be refuelled

2.7
refillable lighter
lighter intended to be refuelled either by transferring fuel from an external container or by inserting a new prefilled fuel reservoir

2.8
adjustable lighter
lighter provided with a mechanism for the user to vary the flame height

2.9
non-adjustable lighter
lighter that is not provided with a user-accessible mechanism to adjust the flame height

NOTE The flame height is preset by the manufacturer.

2.10
automatically adjusting pipe lighter
lighter characterized by an automatic increase in flame height when tilted from an upright position, designed specifically for the purpose of lighting pipes

2.11
self-extinguishing lighter
lighter that, once ignited, requires continuous intentional and positive action to maintain a flame and that is subsequently extinguished by the termination of such positive action

2.12
non-self-extinguishing lighter
lighter that, once ignited, does not require intentional or positive action by the user to maintain a flame and requires a subsequent deliberate user action to extinguish the flame

2.13
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 wick or burner valve orifice

2.14
shield
structure that totally or partially surrounds the burner valve orifice of a gas lighter or the wick of a fluid lighter

2.15
burner valve
component of a gas lighter which controls the release of fuel

2.16
burner valve orifice
tip of the burner valve from which fuel is released

2.17
flaring
variation of flame height from the steady-state flame condition

2.18
sustained self-ignition
propagation of a flame by other than deliberate manual operation, such as by dropping the lighter, so as to cause the ignition element to be activated and the flame to continue to burn

2.19
spitting
sputtering
flame phenomenon of a gas lighter wherein the escape of non-evaporated liquefied gas produces a shower of burning liquid droplets which separate from the main flame

2.20
flame
result of combustion of fuel that produces heat and often light which could be visible with the naked eye under normal or subdued lighting conditions

2.21
ignite
produce a flame with a lighter by activating the self-contained ignition and fuel release systems of that lighter in the intended manner

3 Functional requirements

3.1 Flame generation

In order to minimize the possibility of inadvertent ignition, or self-ignition, lighters shall require a deliberate manual operation to produce a flame. This operation shall conform to at least one of the following requirements:

a) positive action on the part of the user shall be required to generate and maintain a flame;

b) two or more independent actions by the user shall be required to generate a flame;

c) an actuating force equal to, or greater than, 15 N shall be required to generate a flame (see Figure 1 or Figure 2).

3.2 Flame heights

NOTE Maximum flame heights specified in this International Standard, for both postmixing burner lighters and premixing burner lighters, will be reconsidered periodically with a view to gradual reduction in line with technological progress.

3.2.1 Non-adjustable lighters

3.2.1.1 Non-adjustable fluid lighters shall not be capable of producing a flame height greater than 120 mm when tested in accordance with 5.2.

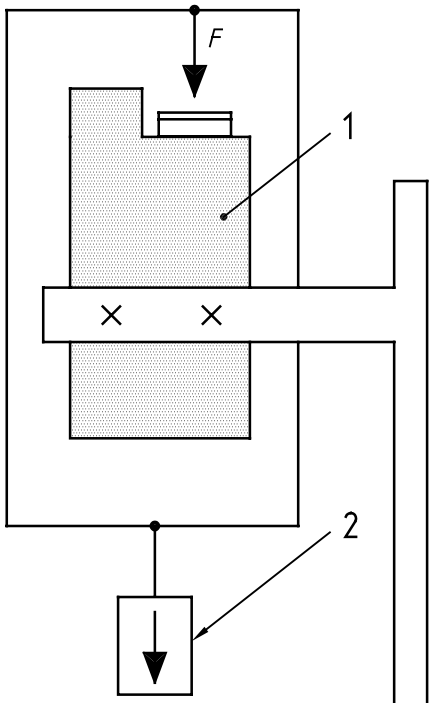
3.2.1.2 Non-adjustable, postmixing and premixing burner lighters shall not be capable of producing a flame height greater than 50 mm when tested in accordance with 5.2.

3.2.2 Adjustable lighters

3.2.2.1 For adjustable lighters as defined in 2.8, the maximum flame height that a user will obtain under different conditions of use shall comply with the following requirements when tested in accordance with 5.2.

3.2.2.2 Adjustable postmixing burner lighters shall have the flame height adjusted by the manufacturer in such a manner that the lighter, when first ignited by the user — without changing the adjustment — will not produce a flame height greater than 100 mm.

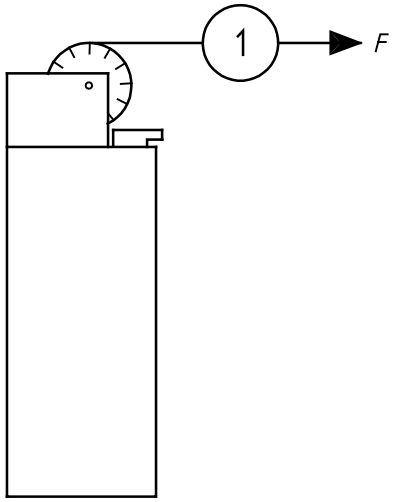
3.2.2.3 Adjustable postmixing burner lighters shall not be capable of producing a flame height greater than 120 mm when deliberately adjusted by the user to the manufacturer's design limit for maximum flame height.



Key

1 Lighter
2 Mass
F Flame-generation actuating force

Figure 1 — Application of flame-generation actuating force as specified in 3.1 c) — Push-button actuator



Key

1 Force gauge
F Flame-generation actuating force

Figure 2 — Application of flame-generation actuating force as specified in 3.1 c) — Rotary actuator