



SLOVENSKI STANDARD
SIST EN ISO 9994:2006
01-oktober-2006

BUXca Yý U.
SIST EN ISO 9994:2004

Vžigalniki – Varnostna specifikacija (ISO 9994:2005)

Lighters - Safety specification (ISO 9994:2005)

Feuerzeuge - Festlegungen für die Sicherheit (ISO 9994:2005)

Briquets - Spécifications de sécurité (ISO 9994:2005)

ITeH STANDARD PREVIEW
(standards.iteh.ai)

Ta slovenski standard je istoveten z: EN ISO 9994:2006

[SIST EN ISO 9994:2006](#)

<https://standards.iteh.ai/catalog/standards/sist/c39dd786-d8b9-42e7-a0f5-b3142e535e91/sist-en-iso-9994-2006>

ICS:

97.180

SIST EN ISO 9994:2006

en

iTeh STANDARD PREVIEW
(standards.iteh.ai)

SIST EN ISO 9994:2006

<https://standards.iteh.ai/catalog/standards/sist/c39dd786-d8b9-42e7-a0f5-b3142e535e91/sist-en-iso-9994-2006>

English Version

Lighters - Safety specification (ISO 9994:2005)

Briquets - Spécifications de sécurité (ISO 9994:2005)

Feuerzeuge - Festlegungen für die Sicherheit - Änderung 1:
Sicherheitszeichen (ISO 9994:2005)

This European Standard was approved by CEN on 3 February 2006.

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 Central Secretariat 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 Central Secretariat has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.

ITh STANDARD PREVIEW
(standards.iteh.ai)
SIST EN ISO 9994:2006
<https://standards.iteh.ai/catalog/standards/sist/c39dd786-d8b9-42e7-a0f5-b3142e535e91/sist-en-iso-9994-2006>



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

Management Centre: rue de Stassart, 36 B-1050 Brussels

Foreword

The text of ISO 9994:2005 has been prepared by Technical Committee ISO/TC 61 "Plastics" of the International Organization for Standardization (ISO) and has been taken over as EN ISO 9994:2006 by Technical Committee CEN/SS H22 "Smokers' lighters", 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 2006, and conflicting national standards shall be withdrawn at the latest by September 2006.

This document supersedes EN ISO 9994:2002.

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

iTeh STANDARD PREVIEW
Endorsement notice
(standards.iteh.ai)

The text of ISO 9994:2005 has been approved by CEN as EN ISO 9994:2006 without any modifications.

SIST EN ISO 9994:2006

<https://standards.iteh.ai/catalog/standards/sist/c39dd786-d8b9-42e7-a0f5-b3142e535e91/sist-en-iso-9994-2006>

Lighters — Safety specification

Briquets — Spécifications de sécurité

iTeh STANDARD PREVIEW
(standards.iteh.ai)

[SIST EN ISO 9994:2006](https://standards.iteh.ai/catalog/standards/sist/c39dd786-d8b9-42e7-a0f5-b3142e535e91/sist-en-iso-9994-2006)

<https://standards.iteh.ai/catalog/standards/sist/c39dd786-d8b9-42e7-a0f5-b3142e535e91/sist-en-iso-9994-2006>



PDF disclaimer

This PDF file may contain embedded typefaces. In accordance with Adobe's licensing policy, this file may be printed or viewed but shall not be edited unless the typefaces which are embedded are licensed to and installed on the computer performing the editing. In downloading this file, parties accept therein the responsibility of not infringing Adobe's licensing policy. The ISO Central Secretariat accepts no liability in this area.

Adobe is a trademark of Adobe Systems Incorporated.

Details of the software products used to create this PDF file can be found in the General Info relative to the file; the PDF-creation parameters were optimized for printing. Every care has been taken to ensure that the file is suitable for use by ISO member bodies. In the unlikely event that a problem relating to it is found, please inform the Central Secretariat at the address given below.

iTeh STANDARD PREVIEW
(standards.iteh.ai)

SIST EN ISO 9994:2006

<https://standards.iteh.ai/catalog/standards/sist/c39dd786-d8b9-42e7-a0f5-b3142e535e91/sist-en-iso-9994-2006>

© ISO 2005

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office
Case postale 56 • CH-1211 Geneva 20
Tel. + 41 22 749 01 11
Fax + 41 22 749 09 47
E-mail copyright@iso.org
Web www.iso.org

Published in Switzerland

Contents

Page

Foreword	iv
1 Scope	1
2 Terms and definitions	1
3 Functional requirements	3
4 Structural integrity requirements	7
5 Test methods	9
6 Instructions and warnings	20
7 Product marking	24
Annex A (informative) Manufacturer's acceptance limits for specifications and inset limits for flame characteristics in 3.2.1 and 3.2.2	25
Bibliography	26

iTeh STANDARD PREVIEW
(standards.iteh.ai)

SIST EN ISO 9994:2006

<https://standards.iteh.ai/catalog/standards/sist/c39dd786-d8b9-42e7-a0f5-b3142e535e91/sist-en-iso-9994-2006>

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 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.

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

This fourth edition cancels and replaces the third edition (ISO 9994:2002). The main change is the inclusion of safety symbols (see Subclause 6.4).

INTERNATIONAL STANDARD PREVIEW

(standards.iteh.ai)

SIST EN ISO 9994:2006

<https://standards.iteh.ai/catalog/standards/sist/c39dd786-d8b9-42e7-a0f5-b3142e535e91/sist-en-iso-9994-2006>

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 document, 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 exposed wick or the top of the 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:

- iTeh STANDARD PREVIEW
 (standards.iteh.ai)
 SIST EN ISO 9994:2006
<https://standards.iteh.ai/catalog/standards/sist/c39dd786-d8b9-42e7-a0f5-b3142e535e91/sist-en-iso-9994-2006>
- 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.

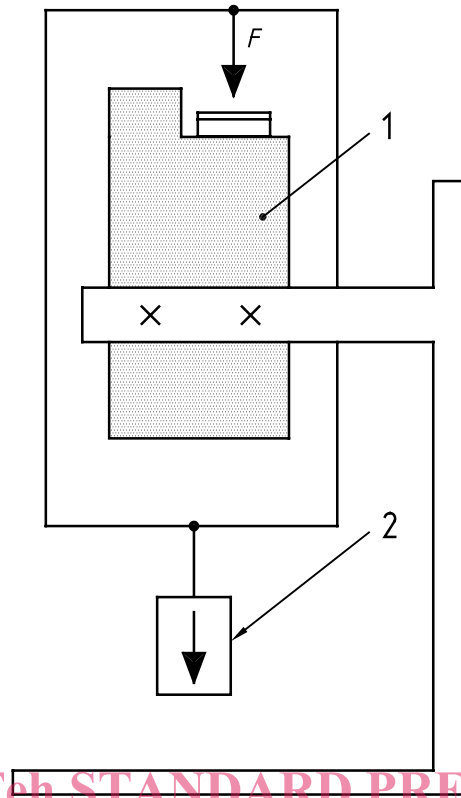
3.2.1.2 Non-adjustable, postmixing and premixing burner lighters shall not be capable of producing a flame height greater than 50 mm when tested in accordance with 5.2.

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.



iTeH STANDARD PREVIEW
(standards.iteh.ai)

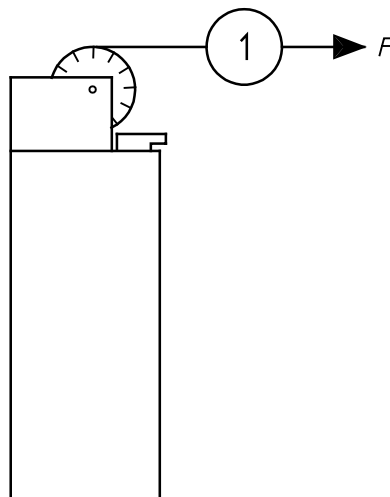
Key

- 1 lighter
- 2 mass

F flame-generation actuating force

SIST EN ISO 9994:2006
<https://standards.iteh.ai/catalog/standards/sist/c39dd786-d8b9-42e7-a0f5-431d3-7375-4131a1c11100/iso-9994-2006>

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