



**SLOVENSKI STANDARD**  
**SIST EN 14035-34:2003**  
**01-december-2003**

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**Ognjemet – 34. del: Namizne bombice – Specifikacija in preskusne metode**

Fireworks - Part 34: Table bombs - Specification and test methods

Feuerwerkskörper - Teil 34: Tischfeuerwerk - Anforderungen und Prüfverfahren

Artifices de divertissement - Partie 34 : Bombes de table - Spécifications et méthodes d'essai

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**Ta slovenski standard je istoveten z: EN 14035-34:2003**

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**ICS:**

71.100.30

**SIST EN 14035-34:2003**

**en**

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ICS 71.100.30

English version

## Fireworks - Part 34: Table bombs - Specification and test methods

Artifices de divertissement - Partie 34: Bombes de tables -  
Spécifications et méthodes d'essai

Feuerwerkskörper - Teil 34: Tischfeuerwerk -  
Anforderungen und Prüfverfahren

This European Standard was approved by CEN on 7 November 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.

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## Foreword

This document (EN 14035-34:2003) has been prepared by Technical Committee CEN/TC 212 "Fireworks", the secretariat of which is held by NEN.

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of an identical text or by endorsement, at the latest by November 2003, and conflicting national standards shall be withdrawn at the latest by November 2003.

This European Standard is one of a series of standards as listed below.

EN 14035-1, *Fireworks - Part 1: Terminology.*

EN 14035-2, *Fireworks - Part 2: Categorisation.*

prEN 14035-3, *Fireworks - Part 3: Aerial wheels - Specification and test methods.*

EN 14035-4, *Fireworks - Part 4: Bangers and banger batteries - Specification and test methods.*

prEN 14035-5, *Fireworks - Part 5: Batteries or combinations - Specification and test methods.*

prEN 14035-6, *Fireworks - Part 6: Bengal flames - Specification and test methods.*

prEN 14035-7, *Fireworks - Part 7: Bengal matches - Specification and test methods.*

prEN 14035-8, *Fireworks - Part 8: Bengal sticks - Specification and test methods.*

prEN 14035-9, *Fireworks - Part 9: Crackling granules - Specification and test methods.*

prEN 14035-10, *Fireworks - Part 10: Double bangers - Specification and test methods.*

EN 14035-12, *Fireworks - Part 12: Flash bangers and flash banger batteries - Specification and test methods.*

prEN 14035-13, *Fireworks - Part 13: Flash pellets - Specification and test methods.*

prEN 14035-14, *Fireworks - Part 14: Flying squibs - Specification and test methods.*

EN 14035-15, *Fireworks - Part 15: Fountains - Specification and test methods.*

prEN 14035-16, *Fireworks - Part 16: Friction-ignited flash bangers - Specification and test methods.*

prEN 14035-17, *Fireworks - Part 17: Ground spinners - Specification and test methods.*

prEN 14035-18, *Fireworks - Part 18: Hand-held fountains - Specification and test methods.*

EN 14035-19, *Fireworks - Part 19: Hand-held sparklers - Specification and test methods.*

prEN 14035-20, *Fireworks - Part 20: Jumping crackers - Specification and test methods.*

prEN 14035-21, *Fireworks - Part 21: Jumping ground spinners - Specification and test methods.*

prEN 14035-22, *Fireworks - Part 22: Mines - Specification and test methods.*

EN 14035-23, *Fireworks - Part 23: Non-hand-held sparklers - Specification and test methods.*

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prEN 14035-24, *Fireworks - Part 24: Novelty matches - Specification and test methods.*

prEN 14035-25, *Fireworks - Part 25: Party poppers - Specification and test methods.*

prEN 14035-26, *Fireworks - Part 26: Percussion caps - Specification and test methods.*

EN 14035-27, *Fireworks - Part 27: Rockets - Specification and test methods.*

prEN 14035-28, *Fireworks - Part 28: Roman candles - Specification and test methods.*

prEN 14035-29, *Fireworks - Part 29: Serpents - Specification and test methods.*

prEN 14035-31, *Fireworks - Part 31: Shells-in-mortars - Specification and test methods.*

prEN 14035-32, *Fireworks - Part 32: Snaps - Specification and test methods.*

prEN 14035-33, *Fireworks - Part 33: Spinners - Specification and test methods.*

EN 14035-34, *Fireworks - Part 34: Table bombs - Specification and test methods.*

prEN 14035-35, *Fireworks - Part 35: Throwdowns - Specification and test methods.*

prEN 14035-36, *Fireworks - Part 36: Wheels - Specification and test methods.*

prEN 14035-37, *Fireworks - Part 37: Whistlers - Specification and test methods.*

In this European Standard the annexes A to D are normative.

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, Hungary, Iceland, Ireland, Italy, Luxembourg, Malta, Netherlands, Norway, Portugal, Slovakia, Spain, Sweden, Switzerland and the United Kingdom.

## 1 Scope

This European Standard specifies requirements for the construction, performance, primary packaging and labelling of table bombs and the corresponding test methods. It is applicable to fireworks which are classified as table bombs in category 1 EN 14035-2 which contain pyrotechnic composition that is nitrocellulose, with a mass fraction of nitrogen of not more than 12,6 %.

NOTE In EN 14035-2, table bombs are classified as follows:

- brief description: paper, cardboard or plastics tube with firm bottom and closed top, containing a propellant charge and non-pyrotechnic objects;
- principal effects: report, with ejection of streamers, confetti and/or novelties.

Schemes for type testing of table bombs and batch testing of table bombs are specified in annex A and annex B respectively.

## 2 Normative references

This European Standard incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text, and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies (including amendments).

EN 14035-1:2003, *Fireworks — Part 1: Terminology*.

EN 14035-2, *Fireworks — Part 2: Classification*.

EN 1783, *Matches – Performance requirements, safety and classification*.

EN 20187, *Paper, board and pulps — Standard atmosphere for conditioning and testing and procedure for monitoring the atmosphere and conditioning of samples (ISO 187:1990)*.

EN ISO 536, *Paper and board — Determination of grammage (ISO 536:1995)*.

EN ISO 845, *Cellular plastics and rubbers — Determination of apparent (bulk) density (ISO 845:1988)*.

EN ISO 868, *Plastics and ebonite — Determination of indentation hardness by means of a durometer (Shore Hardness) (ISO 868:1985)*.

ISO 2439, *Flexible cellular polymeric materials — Determination of hardness (indentation technique) (including Technical Corrigendum 1:2001)*.

ISO 2859-1, *Sampling procedures for inspection by attributes — Part 1: Sampling schemes indexed by acceptance quality limit (AQL) for lot-by-lot inspection*.

## 3 Terms and definitions

For the purposes of this European Standard, the terms and definitions given in EN 14035-1 apply.

## 4 Construction

### 4.1 Means of ignition

The means of ignition shall be identified by a protruding fuse.

Conformity to this requirement shall be verified by visual examination.

### 4.2 Attachment of initial fuse

The attachment of the protruding fuse to the table bomb shall be secure when tested in accordance with 8.1.

### 4.3 Protection of initial fuse

#### 4.3.1 General

The initial fuse shall be protected in one of the ways specified in 4.3.2, 4.3.3 or 4.3.4.

#### 4.3.2 Initial fuse protected by fuse cover

An orange fuse cover shall be in place over the initial fuse.

Conformity to this requirement shall be verified by visual examination.

#### 4.3.3 Initial fuse protected by primary pack

The table bomb shall be contained in a primary pack conforming to clause 6.

Conformity to this requirement shall be verified by visual examination.

#### 4.3.4 Protruding fuse to resist side ignition

When tested in accordance with 8.5, the protruding fuse shall not ignite.

### 4.4 Materials of firework case

The body of the firework case shall be made of paper, cardboard or plastics.

NOTE The base can be fixed by metal staples.

Conformity to these requirements shall be verified by visual examination.

### 4.5 Materials of ejected objects

When tested in accordance with 8.3, the ejected objects shall not be made of glass.

### 4.6 Integrity

#### 4.6.1 Firework case

There shall be no holes, splits, dents or bulges in the body of the firework case. If the base is a separate component, it shall be securely in place.

Conformity to these requirements shall be verified by visual examination.



#### 4.6.2 Table bomb

When tested in accordance with A.5, the mass of loose pyrotechnic composition shall not exceed 100 mg.

#### 4.7 Closure of the mouth

When tested in accordance with A.5.2, the closure of the mouth of the table bomb shall be in place and retain the contents.

#### 4.8 Net explosive content

When determined in accordance with 8.4, the table bombs shall have a net explosive content of not more than 1,0 g.

#### 4.9 Vertical Stability

When tested in accordance with 8.2, the table bomb shall not fall over.

### 5 Performance

#### 5.1 Initial fuse

When tested in accordance with 8.3, the initial fuse shall ignite within 10 s and the ignition shall be visible.

When tested in accordance with 8.3, the duration of the initial fuse burning shall be 3,0 s to 8,0 s.

#### 5.2 Principal effects

When tested in accordance with 8.3, the principal effects of the table bomb, as given in EN 14035-2, shall be a single report with ejection of streamers, confetti and/or novelties.

#### 5.3 Number of reports

When tested in accordance with 8.3, the table bomb shall not produce more than one report.

#### 5.4 Burning matter

When tested in accordance with 8.3, the functioning of a table bomb shall not cause either sheet of test paper to catch fire or any holes to be burnt in the test paper.

When tested in accordance with 8.3, the functioning of a table bomb shall not cause the ejected material to catch fire.

#### 5.5 Projected material

When tested in accordance with 8.3, the projected material from a table bomb shall not penetrate the test paper.

#### 5.6 Stability

When tested in accordance with 8.3, the table bomb shall remain upright whilst functioning.

#### 5.7 Integrity of body after functioning

When tested in accordance with 8.3, the firework case shall have no additional holes or splits after functioning.

## 6 Primary pack

If a primary pack is required to protect the initial fuse(s) of the table bomb(s) (see 4.3.3), the primary pack shall completely enclose the table bomb. There shall be no holes or splits in the primary pack, except those which are intended to enable the packaging to be opened and those which are otherwise technically necessary. Conformity to these requirements shall be verified by visual examination.

## 7 Minimum labelling requirements

### 7.1 General

Table bombs and their primary packs, if any, shall be marked with the information specified in 7.2 to 7.5 and, if relevant, 7.7 and/or 7.8.

The specified information shall be given in the language(s) of the country in which the table bombs or primary packs are offered for retail sale. For each language, it shall be presented as a whole and shall not be interrupted by other text. Additional text given in another language shall not conflict with the specified information.

Conformity to the requirements specified in 7.1 to 7.5, 7.6.1, 7.7.2 and 7.8 shall be verified by visual examination.

NOTE Examples of typical labels for bangers, for which many of the marking requirements are similar to those specified for table bombs in this standard, are given in EN 14035-4.

### 7.2 Type name and category

The type name shall be marked, in upper case, as 'TABLE BOMB'. If a trade name is used in addition to the type name, it shall not conflict with the principal effect of a table bomb or with the name of another type of firework.

The category shall be marked, in upper case, as 'CATEGORY 1' or 'CAT 1'.

### 7.3 Safety information

#### 7.3.1 General

Safety information shall be emphasized by use of a heading, or bold type, or similar. If necessary, instructions in addition to those specified in 7.3.2 may be given.

#### 7.3.2 Table bombs

Labelling shall include at least the following safety information in the order as given:

- 'Remove orange fuse cover' <sup>1)</sup>;
- 'Place on non-flammable surface';
- 'Spectators must be at least 1 m away';
- 'Standing sideways, light fuse at its outermost end and retire immediately at least 1 m';
- 'Do not use under light fittings'.

#### A.1 \_\_\_\_\_

<sup>1)</sup> If applicable.

## 7.4 Name, address and telephone number of manufacturer or distributor or importer

Labelling shall include:

- the name or trade mark, the address and the telephone number of the manufacturer; or
- an abbreviation or a code allowing the identification of the manufacturer, and the name or trade mark, the address and the telephone number:
  - of his authorized distributor; or
  - if the manufacturer is not established in a CEN member country, of the importer in a CEN member country.

The address shall comprise at least the town and the country. On the table bomb at least the abbreviations allowing the identification of:

- the manufacturer; or
- the distributor or importer, with an additional code or abbreviation for the manufacturer

shall be marked.

## 7.5 Reference to this standard

A table bomb shall be marked with 'EN 14035-34'. A primary pack shall be marked with the words 'Contents conform to EN 14035-34'.

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## 7.6 Printing

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### 7.6.1 Labelling

Labelling shall be clearly visible, easily legible, indelible and on a single-colour background.

NOTE Printing errors which are not misleading should not be classified as faults.

### 7.6.2 Type size

When measured in accordance with 8.6, the type sizes shall be such that the height of the character 'X' (in upper case) is at least 2,8 mm for the information specified in 7.2, 7.3 and 7.8 and at least 2,1 mm for the other information.

## 7.7 Marking of very small table bombs

### 7.7.1 Reduced type size

If the table bomb does not provide enough space for the specified information using the types sizes specified in 7.6.2, for the information specified in 7.2 and 7.3 the type size shall be reduced to 2,1 mm.

### 7.7.2 Reduced information

If the table bomb does not provide enough space to carry all the specified information even in reduced type size, at least the information specified in 7.4 shall be given on table bombs, if at all possible.

## 7.8 Additional information on the primary pack (if applicable)

If the table bomb is not labelled completely with the information specified in 7.2 to 7.5, or if the primary pack acts as protection of the initial fuses according to 4.3.3, the table bomb shall be sold only in a primary pack. The pack shall be marked with the statement

'Must be sold as packaged'.

This statement shall appear adjacent to the type name or category. For the printing 7.6 applies.

## 8 Test methods

NOTE Verification of conformity to the requirements in 4.1, 4.3.2 or 4.3.3, 4.4, 4.6.1 clause 6, 7.1 to 7.5, 7.6.1, 7.7.2 and 7.8 is by visual examination.

### 8.1 Attachment of initial fuse (type test and batch test)

#### 8.1.1 Apparatus

8.1.1.1 Means of clamping the table bomb.

8.1.1.2 Weight, of mass 50 g.

8.1.1.3 Timing device, capable of being read to the nearest of 0,1 s.

#### 8.1.2 Procedure

Clamp the table bomb by means of the clamping device (8.1.1.1) in a position such that the initial fuse is pointing vertically downwards and securely attach the weight (8.1.1.2) to the initial fuse.

Using the timing device (8.1.1.3), determine and record, whether the initial fuse will support the weight for at least 10 s without becoming detached. If the initial fuse becomes detached do not proceed with further testing of that table bomb.

### 8.2 Vertical stability test (type test)

#### 8.2.1 Apparatus

8.2.1.1 Wooden block, rectangular, with an upper surface inclined at 10° to the horizontal.

8.2.1.2 Timing device, capable of being read to the nearest of 0,1 s.

#### 8.2.2 Procedure

8.2.2.1 Place the base of the table bomb on the inclined surface of the wooden block (8.2.1.1). For polygonal (triangular, etc.) bases, align one edge of the base with the top edge of the wooden block.

8.2.2.2 Using the timing device (8.2.1.2), observe and record whether the table bomb falls over within 5 s. If it falls over discontinue the test.

8.2.2.3 Rotate the table bomb clockwise through 90° and repeat the observation described in 8.2.2.2.

8.2.2.4 Repeat the operations described in 8.2.2.3 twice more (unless the table bomb falls over).