



SLOVENSKI STANDARD
SIST EN 14035-35:2005
01-februar-2005

Ognjemet - 35. del: Pasje bombice - Specifikacija in preskusne metode

Fireworks - Part 35: Throwdowns - Specification and test methods

Feuerwerkskörper - Teil 35: Knallerbsen - Anforderungen und Prüfverfahren

Artifices de divertissement - Pois fulminants - Partie 35: Spécifications et méthodes d'essai

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Ta slovenski standard je istoveten z: EN 14035-35:2004

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Fireworks - Part 35: Throwdowns - Specification and test methods

Artifices de divertissement - Pois fulminants - Partie 35:
Spécifications et méthodes d'essai

Feuerwerkskörper - Teil 35: Knallerbsen - Anforderungen
und Prüfverfahren

This European Standard was approved by CEN on 10 September 2004.

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.

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

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Foreword

This document (EN 14035-35:2004) 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of an identical text or by endorsement, at the latest by May 2005, and conflicting national standards shall be withdrawn at the latest by May 2005.

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.*

EN 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 and combinations - Specification and test methods.*

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

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

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

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

EN 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.*

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

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

EN 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.*

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

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

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

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

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

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

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

prEN 14035-31, *Fireworks - Part 31: Shell-in-mortars - 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.*

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

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

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

prEN 14035-38, *Fireworks - Part 38: Shot tubes - Specification and test methods.*

In this European Standard the annexes A to B are normative and the annex C is informative and contains national deviations due to regulations, the alteration of which is for the time being outside the competence of the CEN/CENELEC member.

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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, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.

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1 Scope

This document specifies requirements for the construction, performance, primary packaging and labelling of throwdowns and the corresponding test methods. It is applicable to fireworks which are classified as throwdowns in category 1 in EN 14035-2 which contain pyrotechnic report composition that is silver fulminate and which are contained in a primary pack.

It is not applicable to throwdowns containing pyrotechnic composition that includes any of the following substances:

- arsenic or arsenic compounds;
- mixtures containing a mass fraction of chlorates greater than 80 %;
- mixtures of chlorates with metals;
- mixtures of chlorates with red phosphorus;
- mixtures of chlorates with potassium hexacyanoferrate(II);
- mixtures of chlorates with sulfur;
- mixtures of chlorates with sulfides;
- lead or lead compounds;
- mercury compounds;
- white phosphorus;
- picrates or picric acid;
- potassium chlorate with a mass fraction of bromates greater than 0,15 %;
- sulfur with an acidity, expressed as mass fraction of sulfuric acid, greater than 0,002 %;
- zirconium with a particle size of less than 40 μm .

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

- brief description: impact-sensitive pyrotechnic composition and grains of inert material wrapped in tissue paper or foil;
- principal effect: report, when thrown down onto the ground.

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

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2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

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

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

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 868:2003)*.

EN ISO 2439, *Flexible cellular polymeric materials — Determination of hardness (indentation technique) (ISO 2439:1997, including Technical Corrigendum 1:1998)*.

EN ISO 3696, *Water for analytical laboratory use — Specification and test methods (ISO 3696:1987)*.

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

ISO 4793, *Laboratory sintered (fritted) filters — Porosity grading, classification and designation*.

3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN 14035-1:2003 apply.

4 Construction

4.1 Packaging of throwdowns

The throwdown shall be contained in a primary pack conforming to clause 6 and embedded in saw dust.

Conformity to this requirement shall be verified by visual examination.

4.2 Materials of firework case

The body of the firework case shall be made of tissue paper or foil.

Conformity to this requirement shall be verified by visual examination.

4.3 Integrity of firework case

There shall be no holes or splits in the body of the firework case and it shall retain the contents.

Conformity to these requirements shall be verified by visual examination.

4.4 Net explosive content

When determined in accordance with 8.3, a throwdown shall have a net explosive content of not more than 2,5 mg.

4.5 Pyrotechnic composition

When determined in accordance with 8.3, the report composition shall only be silver fulminate.

5 Performance

5.1 Principal effect

When tested in accordance with 8.2, the principal effect of the throwdown, as given in EN 14035-2, shall be a single report.

5.2 Protection of throwdowns

When tested in accordance with 8.1, the throwdown shall not explode and when tested subsequently in accordance with 8.2 it shall produce a single report.

5.3 Number of reports

When tested in accordance with 8.2, the throwdown shall not produce more than one report.

6 Primary pack

The primary pack is required to protect the throwdowns (see 4.1) and shall not contain more than 50 throwdowns. The pack shall completely enclose the throwdown(s) and there shall be no holes or splits in the pack.

The throwdown(s) in the primary pack or sub-pack, if any, shall be embedded in saw dust.

Conformity to these requirements shall be verified by visual examination.

7 Minimum labelling requirements

7.1 General

The primary packs of throwdowns shall be marked with the information specified in 7.2 to 7.5 and 7.7.

The specified information shall be given in the language(s) of the country in which the throwdowns contained in 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 and 7.7 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 the primary packs of throwdowns 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 'THROWDOWNS'. If a trade name is used in addition to the type name, it shall not conflict with the principal effect of a throwdown 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 Throwdowns

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

- 'Use one at a time';
- 'Do not throw at or near people or animals';
- 'Throw onto hard ground';
- 'Do not carry throwdowns loose in the pocket'.

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.

7.5 Reference to this document

A primary pack shall be marked with the words 'Contents conform to EN 14035-35'.

7.6 Printing

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 8.4, 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 7.7 and at least 2,1 mm for the other information.