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Ognjemet – 24. del: Vžigalice s pokom – Specifikacija in preskusne metode

Fireworks - Part 24: Novelty matches - Specification and test methods

Feuerwerkskörper - Teil 24: Scherzzündholzer - Anforderungen und Prüfverfahren

Artifices de divertissement - Partie 24: Allumettes détonantes - Spécifications et méthodes d'essai

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This European Standard was approved by CEN on 14 June 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.

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EUROPÄISCHES KOMITEE FÜR NORMUNG

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Foreword

This document (EN 14035-24:2004) 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of an identical text or by endorsement, at the latest by February 2005, and conflicting national standards shall be withdrawn at the latest by February 2005.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 14035-32, *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.*

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.*

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 novelty matches and the corresponding test methods. It is applicable to fireworks which are classified as novelty match in category 1 in EN 14035-2 and which are contained in a primary pack.

It is applicable to novelty matches which contain pyrotechnic report composition that is silver fulminate only.

It is not applicable to novelty matches 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 in mass fraction of sulphuric acid, greater than 0,002 %;
- zirconium with a particle size of less than 40 μm .

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

- brief description: match with a dot of pyrotechnic composition, designed to be held in the hand;
- principal effects: report and/or visual effect.

Schemes for type testing of novelty matches and batch testing of novelty matches 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 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 868:2003)*.

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

ISO 3599, *Vernier callipers reading to 0,1 and 0,05 mm*.

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

ISO 6344-3, *Coated abrasives - Grain size analysis - Part 3: Determination of grain size distribution of microgrits P240 to P2500*.

ISO 21948, *Coated abrasives – Plain sheets*.

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 Means of ignition

The means of ignition shall be identified by a friction head.

Conformity to this requirement shall be verified by visual examination.

4.2 Attachment of effect charge

The attachment of the effect charge to the novelty match shall be secure when tested in accordance with 8.1.

4.3 Resistance to ignition by an abrasive surface

When tested in accordance with 8.2, the friction head shall not ignite.

4.4 Protection of novelty matches

The novelty match shall be contained in a primary pack conforming to 6.

Conformity to this requirement shall be verified by visual examination.

4.5 Material of stick

The stick of the novelty matches shall be made of wood or cardboard.

Conformity to this requirement shall be verified by visual examination.

4.6 Integrity of wooden stick

The wooden stick shall have no splits.

Conformity to this requirement shall be verified by visual examination.

4.7 Net explosive content

When determined in accordance with 8.5, a novelty match shall have a mean net explosive content of not more than 50,0 mg and shall only contain one report charge, if any.

When determined in accordance with 8.6, the report charge of a novelty match shall have a mean net explosive content of not more than 3,0 mg.

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4.8 Length of uncoated end of stick (handle)

When measured in accordance with 8.3, the uncoated end of a novelty match (handle) shall have a minimum length of 20 mm.

4.9 Striking surface

The primary pack of novelty matches shall be fitted with a striking surface for safety matches.

Conformity to this requirement shall be verified by visual examination.

5 Performance

5.1 Friction head

When tested in accordance with 8.4, the friction head shall ignite.

5.2 Principal effects

When tested in accordance with 8.4, the principal effects of the novelty match, as given in EN 14035-2, shall be a report and/or visual effect.

5.3 Burning matter

When tested in accordance with 8.4, the functioning of a novelty match shall not cause the test paper to catch fire or any holes to be burnt in the test paper.

6 Primary pack

The primary pack shall completely enclose the novelty match(es) and there shall be no holes or splits in the primary pack.

The striking surface on the primary pack shall be on the outside, where contact with the match heads cannot occur during normal access to the contents.

Conformity to these requirements shall be verified by visual examination.

7 Minimum labelling requirements

7.1 General

The primary packs of novelty matches 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 novelty matches contained in the 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 novelty matches 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 'NOVELTY MATCHES'. If a trade name is used in addition to the type name, it shall not conflict with the principal effects of a novelty match 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 Novelty matches

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

- 'Ignite on the striking surface';
- 'Use singly';
- 'Use only above non-flammable surface';
- 'Do not carry novelty matches 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 standard

A primary pack shall be marked with the words 'Contents conform to EN 14035-24'.

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 8.7, 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.

7.7 Additional information on the primary pack

The primary 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.