

# **SLOVENSKI STANDARD**

## **SIST EN 15947-2:2016**

**01-februar-2016**

**Nadomešča:**  
**SIST EN 15947-2:2010**

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**Pirotehnični izdelki - Ognjemetni izdelki, kategorije 1, 2 in 3 - 2. del: Kategorije in vrste ognjemetnih izdelkov**

Pyrotechnic articles - Fireworks, Categories 1, 2, and 3 - Part 2: Categories and types of firework

Pyrotechnische Gegenstände - Feuerwerkskörper, Kategorien 1, 2 und 3 - Teil 2: Kategorien und Arten von Feuerwerktypen

Articles pyrotechniques - Artifices de divertissement, Catégories 1, 2, et 3 - Partie 2 : Catégories et types d'artifices de divertissement

**Ta slovenski standard je istoveten z: EN 15947-2:2015**

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**ICS:**

71.100.30      Eksplozivi. Pirotehnika      Explosives. Pyrotechnics

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EUROPEAN STANDARD  
NORME EUROPÉENNE  
EUROPÄISCHE NORM

**EN 15947-2**

December 2015

ICS 71.100.30

Supersedes EN 15947-2:2010

English Version

**Pyrotechnic articles - Fireworks, Categories F1, F2, and F3  
- Part 2: Categories and types of firework**

Articles pyrotechniques - Artifices de divertissement,  
Catégories F1, F2 et F3 - Partie 2 : Catégories et types  
d'artifices de divertissement

Pyrotechnische Gegenstände - Feuerwerkskörper,  
Kategorien F1, F2 und F3 - Teil 2: Kategorien und  
Feuerwerkstypen

This European Standard was approved by CEN on 26 September 2015.

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 CEN-CENELEC 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 CEN-CENELEC Management Centre has the same status as the official versions.

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



EUROPEAN COMMITTEE FOR STANDARDIZATION  
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## European foreword

This document (EN 15947-2:2015) has been prepared by Technical Committee CEN/TC 212 “Pyrotechnic articles”, 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 June 2016, and conflicting national standards shall be withdrawn at the latest by June 2016.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN [and/or CENELEC] shall not be held responsible for identifying any or all such patent rights.

This document supersedes EN 15947-2:2010.

This document has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association, and supports essential requirements of EU Directive(s).

For relationship with EU Directive(s), see informative Annex ZA, which is an integral part of this document.

This European Standard is one of the series of standards as listed below:

- EN 15947-1, *Pyrotechnic articles — Fireworks, Categories F1, F2 and F3 — Part 1: Terminology*;
- EN 15947-2, *Pyrotechnic articles — Fireworks, Categories F1, F2 and F3 — Part 2: Categories and types of firework*;
- EN 15947-3, *Pyrotechnic articles — Fireworks, Categories F1, F2 and F3 — Part 3: Minimum labelling requirements*;
- EN 15947-4, *Pyrotechnic articles — Fireworks, Categories F1, F2 and F3 — Part 4: Test methods*;
- EN 15947-5, *Pyrotechnic articles — Fireworks, Categories F1, F2 and F3 — Part 5: Requirements for construction and performance*.

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

## EN 15947-2:2015 (E)

## 1 Scope

This European Standard establishes a system for dividing fireworks into categories and types. It is applicable to fireworks in categories F1, F2 and F3.

## 2 Normative references

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

EN 15947-1:2015, *Pyrotechnic articles — Fireworks, Categories F1, F2 and F3 — Part 1: Terminology*

EN 15947-3:2015, *Pyrotechnic articles — Fireworks, Categories F1, F2 and F3 — Part 3: Minimum labelling requirements*

EN 15947-5:2015, *Pyrotechnic articles — Fireworks, Categories F1, F2 and F3 — Part 5: Requirements for construction and performance*

EN 16265:2015, *Pyrotechnic articles — Other pyrotechnic articles — Ignition devices*

## 3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN 15947-1:2015 apply.

## 4 Categories

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Fireworks are subdivided into categories as follows:

- **category F1:** fireworks which present a very low hazard and negligible noise level and which are intended for use in confined areas, including fireworks which are intended for use inside domestic buildings;
- **category F2:** fireworks which present a low hazard and low noise level and which are intended for outdoor use in confined areas;
- **category F3:** fireworks which present a medium hazard, which are intended for outdoor use in large open areas and whose noise level is not harmful to human health.

## 5 Category F1

### 5.1 List of articles which fall into category F1

The following articles (i.e. types of firework) fall into category F1, when meeting the requirements in EN 15947-3:2015 and EN 15947-5:2015 for category F1:

- Bengal flames;
- Bengal matches;
- Bengal sticks;

- Christmas crackers;
- crackling granules;
- flash pellets;
- fountains;
- ground spinners;
- hand-held sparklers;
- non-hand-held sparklers;
- novelty matches;
- party poppers;
- serpents;
- snaps;
- table bombs;
- throwdowns.

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## **5.2 List of articles which do not fall into category F1**

Articles (i.e. types of firework) that do not fall into category F1 are, for example:

- aerial wheels;
- bangers;
- batteries;
- batteries requiring external support;
- combinations;
- combinations requiring external support;
- compound fireworks;
- double bangers;
- flash bangers;
- ground movers;
- jumping crackers;
- jumping ground spinners;
- mines;

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- mini rockets;
- rockets;
- Roman candles;
- shot tubes;
- spinners;
- wheels.

**5.3 Procedure to determine whether an article falls into category F1**

This procedure shall be used when a new article is presented, which does not fall into one of the types listed in 5.1.

The following questions in Table 1 shall be answered in the order given. To fall into category F1, an article shall have a negative answer to all the questions. If one answer is “Yes” the article does not fall into category F1.

**Table 1 — Questions for articles that are not in category F1**

Question	Answer
1) Is the article in the list of excluded articles (see 5.2)?	Yes → not in category F1
2) Does the article resemble a toy or food?	Yes → not in category F1
3) Does the sound pressure level exceed 120 dB(A <sub>imp</sub> ) at the safety distance of category F1 fireworks?	Yes → not in category F1
4) Is debris, burning, or incandescent matter projected laterally more than the safety distance of category F1 fireworks?	Yes → not in category F1
5) Does the article, or parts of it, move outside the safety distance of category F1 fireworks from the testing point?	Yes → not in category F1
6) Does the article lift from the ground by more than 0,5 m?	Yes → not in category F1

**6 Types of firework**

Fireworks are further subdivided into various types, as described in Table 2.



Table 2 — Types of firework

Type name	Brief description	Principal effect(s)
<b>aerial wheel</b> soucoupe volante Steigende Krone	tubes containing propellant charges and sparks-, flame- and/or noise-producing pyrotechnic compositions, the tubes being fixed to a supporting structure	rotation and ascent, with emission of sparks and flames, producing a visual and/or aural effect in the air
<b>banger</b> pétard à mèche Knallkörper	non-metallic case containing black powder	report
banger: see also 'double banger', 'flash banger'	-	-
<b>battery</b> batterie Batterie	assembly including several elements, each of the same type and corresponding to one of the types of firework listed in this part of EN 15947:2015 and in accordance with EN 15947-5:2015, 4.3, with one or two points of ignition, which does not require external support	as for the individual elements
<b>battery requiring external support</b> batterie nécessitant un support externe Batterie die externe Stabilisierung erfordert	assembly including several elements, each of the same type and corresponding to one of the types of firework listed in this part of EN 15947:2015 and in accordance with EN 15947-5:2015, 4.3, with one or two points of ignition, which requires external support <a href="https://standards.iteh.ai/catalog/standards/sist/0ebda2eb-49c4-49d2-ae6c-252644a89581/sist-en-15947-2-2016">https://standards.iteh.ai/catalog/standards/sist/0ebda2eb-49c4-49d2-ae6c-252644a89581/sist-en-15947-2-2016</a>	as for the individual elements
<b>Bengal flame</b> feu de Bengale Bengalfeuer	tube containing slow-burning pyrotechnic composition	emission of coloured flame
<b>Bengal match</b> allumette Bengale Bengalholz	short wooden stick partially coated (along one end) with slow-burning pyrotechnic composition, with a dot of friction-sensitive pyrotechnic composition at the tip, and designed to be held in the hand	emission of coloured flame and sparks
<b>Bengal stick</b> baguette Bengale Bengalfackel	wooden stick partially coated (along one end) with slow-burning pyrotechnic composition and designed to be held in the hand	emission of coloured flame and sparks
<b>Christmas cracker</b> christmas cracker Knallbonbon	paper or foil tube, crimped at each end, enclosing novelties and with one or more snaps running along the length of the tube	report when pulled apart and release of the novelties
<b>combination</b> combinaison Kombination	assembly including several elements, not all of the same type, each corresponding to one of the types of firework listed in this part of EN 15947:2015 and in accordance with EN 15947-5:2015, 4.3, with one or two points of ignition, which does not require external support	as for the individual elements