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**Fireworks — Categories 1, 2 and 3 —**  
**Part 1:**  
**Terminology**

*Artifices de divertissement — Catégories 1, 2 et 3 —*  
*Partie 1: Terminologie*





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## Foreword

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This document was prepared by Technical Committee ISO/TC 264, *Fireworks*.

A list of all the parts in the ISO 25947 series can be found on the ISO website.

# Fireworks — Categories 1, 2 and 3 —

## Part 1: Terminology

### 1 Scope

This document defines various terms relating to the design, construction, primary packaging and testing of fireworks of categories 1, 2 and 3.

### 2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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.

ISO 25947-2, *Fireworks — Categories 1, 2 and 3 — Part 2: Categories and types of firework*

### 3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- IEC Electropedia: available at <http://www.electropedia.org/>
- ISO Online browsing platform: available at <http://www.iso.org/obp>

#### 3.1

##### **acceptance quality limit**

##### **AQL**

quality level that is the worst tolerable process average when a continuing series of lots is submitted for acceptance sampling

[SOURCE: ISO 2859-1:1999, 3.1.26]

#### 3.2

##### **batch test**

test performed on a sample of products taken at random from a production batch to check compliance with a given standard

Note 1 to entry: Batch testing needs all products in the production batch to comply with the characteristics the standard requires to ensure homogeneity of the whole batch. It aims to prove that all products which are placed on the market are in conformity with the type which is described in the type-examination certificate and have been successfully submitted to type tests as determined by the standard.

#### 3.3

##### **black powder**

intimate mixture of charcoal and sodium nitrate or potassium nitrate with or without sulfur

#### 3.4

##### **burning rate of composition**

*net explosive content* (3.27) in grams divided by the effect time in seconds

### 3.5

#### **bursting charge**

*pyrotechnic composition* (3.36) which is intended to burst open the *firework case* (3.14), in order to expel one or more *pyrotechnic units* (3.37), which can also transmit ignition

### 3.6

#### **critical nonconforming unit**

*nonconforming unit* (3.28) with one or more *critical nonconformities* (3.7), with or without *major* (3.24) or *minor nonconformities* (3.26)

### 3.7

#### **critical nonconformity**

*nonconformity* (3.29) that judgement and experience indicate is likely to result in hazardous or unsafe conditions

Note 1 to entry: This type of nonconformity is referred to as a “class A nonconformity” in ISO 2859-1:1999.

### 3.8

#### **debris**

any part of the *firework* (3.15) which remains after the firework has ceased to function

### 3.9

#### **droop**

angle by which the tip of a composition-coated wire has been deflected from the horizontal, after the *firework* (3.15) has ceased to burn

### 3.10

#### **effect charge**

*pyrotechnic composition* (3.36), other than *propellant charge* (3.34) or *bursting charge* (3.5), which, upon functioning, will burn or explode to produce a visual and/or aural effect

### 3.11

#### **end closure**

part or crimp which is designed to seal one end of a *firework case* (3.14)

### 3.12

#### **explosion**

sudden release of energy accompanied by a report with or without a flash

### 3.13

#### **external support**

support which is not integral to the article, or which has to be fixed to the article before use by the user to provide stability

Note 1 to entry: External support includes but is not limited to: burying the article in soft ground or material, fixing the article to a post or using heavy objects (e.g. sand bags).

### 3.14

#### **firework case**

container which is designed to retain *pyrotechnic compositions* (3.36) within a *firework* (3.15)

Note 1 to entry: According to its mechanical strength, this container may intentionally (by design) influence the firework's behaviour.

### 3.15

#### **firework**

device containing *pyrotechnic composition* (3.36) which, upon functioning, will burn and/or explode to produce a visual or aural effect or movement, or a combination of such effects, intended as a direct form of entertainment

**3.16****first principal effect**

*principal effect* (3.32) of a *firework* (3.15) which is the first to occur during the functioning of the firework

**3.17****friction head**

*ignition head* (3.18) designed to be ignited by friction

**3.18****ignition head**

*initial fuse* (3.20) consisting of *pyrotechnic composition* (3.36) only

**3.19****initial fuse burning**

burning which immediately follows ignition and precedes any effect

**3.20****initial fuse**

component of a *firework* (3.15) which is ignited in order to start the firework functioning

**3.21****invisible burning time**

time between the *preliminary effect* (3.30) and *first principal effect* (3.16)

**3.22****invisible burning**

burning occurring within the *firework* (3.15) which is not visible to the person who ignited the firework

**3.23****major nonconforming unit**

*nonconforming unit* (3.28) with one or more *major nonconformities* (3.24), with or without *minor nonconformities* (3.26), but with no *critical nonconformities* (3.7)

**3.24****major nonconformity**

*nonconformity* (3.29), other than a *critical nonconformity* (3.7), which is likely to result in failure, to reduce materially the usability of the *firework* (3.15), or to increase the potential hazard

Note 1 to entry: This type of nonconformity is referred to as a “class B nonconformity” in ISO 2859-1:1999.

**3.25****minor nonconforming unit**

*nonconforming unit* (3.28) with one or more *minor nonconformities* (3.26), but with no *critical* (3.7) or *major nonconformities* (3.24)

**3.26****minor nonconformity**

*nonconformity* (3.29) that is not likely to reduce materially the usability of the *firework* (3.15)

Note 1 to entry: This type of nonconformity is referred to as a “class C nonconformity” in ISO 2859-1.

**3.27****net explosive content****NEC**

mass of *pyrotechnic composition* (3.36) in the *firework* (3.15), excluding the pyrotechnic composition in the *initial fuse* (3.20) or *transmitting fuses* (3.34), friction or *ignition heads* (3.18)

Note 1 to entry: Net explosive quantity or net equivalent quantity (NEQ), net explosive mass (NEM), or net explosive weight (NEW) are often used to convey the same meaning.

**3.28**

**nonconforming unit**

*firework* (3.15) or a *primary pack* (3.31) with one or more *nonconformities* (3.29)

**3.29**

**nonconformity**

non-fulfilment of a requirement

**3.30**

**preliminary effect**

visual effect which follows the *initial fuse* (3.20) burning and precedes the *first principal effect* (3.16) of a *firework* (3.15)

**3.31**

**primary pack**

package of one or more *fireworks* (3.15) of the same category and type, offered for retail sale as a single unit

**3.32**

**principal effect**

any of the effects listed in the classification in accordance with ISO 25947-2 for the particular type of *firework* (3.15)

**3.33**

**projected debris**

fragments projected laterally from the *firework* while functioning

**3.34**

**propellant charge**

*pyrotechnic composition* (3.36) which will burn to evolve gas which, in turn, is intended to propel the *firework* (3.15) as a whole or to expel one or more *pyrotechnic units* (3.37) without bursting the *firework case* (3.14), and which can also transmit ignition

**3.35**

**protruding fuse**

*initial fuse* (3.20) that extends from the *firework case* (3.14) and is used to ignite the article with a given time delay

**3.36**

**pyrotechnic composition**

substance or mixture of substances which is designed, on ignition or initiation, to produce an aural and/or visual effect and/or to evolve gas

**3.37**

**pyrotechnic unit**

discrete unit that is part of a *firework* (3.15) which, upon functioning, will burn or explode to produce a visual and/or aural effect

Note 1 to entry: The effect produced by a pyrotechnic unit is normally part of a combination of effects produced by the *firework*.

**3.38**

**report charge**

*pyrotechnic composition* (3.36) which, upon functioning, will produce a report

**3.39**

**rocket launcher**

tube, frame or base from which a rocket can be launched



**3.40****selection pack**

package of *fireworks* (3.15) of more than one type and/or more than one category, offered for retail sale as a single unit

Note 1 to entry: A selection pack can contain primary packs as well as individual fireworks.

**3.41****testing point**

location in the test area where the *firework* (3.15) is placed at the beginning of a performance test

**3.42****total NEC**

mass of *pyrotechnic composition* (3.36) in the *firework* (3.15), including the pyrotechnic composition in the *initial fuse* (3.20) or *transmitting fuses* (3.44), friction or *ignition heads* (3.18)

**3.43****type test**

test performed on a sample of products, representative of the production envisaged, in order to demonstrate their compliance with the provisions of ISO 26261 series

**3.44****transmitting fuse**

component of a *firework* (3.15) which is intended to transmit ignition from one part of a firework to another, with or without a delay

## Bibliography

- [1] ISO 2859-1:1999, *Sampling procedures for inspection by attributes — Part 1: Sampling schemes indexed by acceptance quality limit (AQL) for lot-by-lot inspection*
- [2] ISO 26261 (all parts), *Fireworks — Category 4*

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