

BS EN 16256-4:2012



BSI Standards Publication

Pyrotechnic articles — Theatrical pyrotechnic articles

Part 4: Minimum labelling requirements
and instructions for use

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National foreword

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The UK participation in its preparation was entrusted to Technical Committee CII/47, Pyrotechnic articles.

A list of organizations represented on this committee can be obtained on request to its secretary.

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Articles pyrotechniques - Articles pyrotechniques destinés
au théâtre - Partie 4: Exigences d'étiquetage minimal et
mode d'emploi

Pyrotechnische Gegenstände - Pyrotechnische
Gegenstände für Bühne und Theater - Teil 4:
Mindestanforderungen an die Kennzeichnung und
Gebrauchsanweisung

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Foreword

This document (EN 16256-4:2012) 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of an identical text or by endorsement, at the latest by June 2013, and conflicting national standards shall be withdrawn at the latest by June 2013.

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 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 16256-1, *Pyrotechnic articles — Theatrical pyrotechnic articles — Part 1: Terminology*
- EN 16256-2, *Pyrotechnic articles — Theatrical pyrotechnic articles — Part 2: Categories of theatrical pyrotechnic articles*
- EN 16256-3, *Pyrotechnic articles — Theatrical pyrotechnic articles — Part 3: Requirements for construction and performance*
- EN 16256-4, *Pyrotechnic articles — Theatrical pyrotechnic articles — Part 4: Minimum labelling requirements and instructions for use*
- EN 16256-5, *Pyrotechnic articles — Theatrical pyrotechnic articles — Part 5: Test methods*

CEN/TC 212 has also developed European Standards for:

- Pyrotechnic articles — Fireworks Categories 1, 2 and 3
- Pyrotechnic articles — Fireworks, Category 4
- Pyrotechnic articles — Pyrotechnic articles for vehicles
- Pyrotechnic articles — Other pyrotechnic articles

According to the CEN/CENELEC Internal Regulations, the national standards organisations 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.

1 Scope

This European Standard specifies minimum labelling requirements for the article and primary packaging and for the instructions for use of theatrical pyrotechnic articles of the generic types defined in EN 16256-1:2012, Clause 3.

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 16256-1:2012, *Pyrotechnic articles — Theatrical pyrotechnic articles — Part 1: Terminology*

EN 16256-3:2012, *Pyrotechnic articles – Theatrical pyrotechnic articles – Part 3: Requirements for construction and performance*

EN 16256-5:2012, *Pyrotechnic articles — Theatrical pyrotechnic articles — Part 5: Test methods*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN 16256-1:2012 apply.

4 Minimum labelling requirements

4.1 General

Theatrical pyrotechnic articles shall be marked with the minimum information specified in 4.2 to 4.10. This does not exclude the possibility of adding supplementary information on the label on a national basis.

The specified information shall be given in the official language(s) of the country in which the articles or primary packs are offered for 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.

4.2 Details of manufacturer or importer

Labelling shall include the name and address of the manufacturer. The address shall comprise at least the town and the country.

If the manufacturer is not established in the European Union, the labelling shall include the name of the manufacturer and the name and address of the importer. The address shall comprise at least the town and the country.

4.3 Name and type of article

Labels are to be provided directly on the article (or on the smallest piece of packaging if the article does not provide sufficient space for the labelling requirements) and will include the following information:

- The word "*Pyrotechnic*" shall be marked on the label.
- The type of article shall be marked, in upper case, in conformity with the generic types of EN 16256-1:2012, Table 1, in singular form.

EXAMPLE "Pyrotechnic 10 second FOUNTAIN red/green"

If a trade name is used in addition to the type name, it shall not conflict with the principal effects of the relevant type of article or with the name of another generic type of article.

4.4 Category and registration number

The registration number for tracing products shall be marked in bold in accordance with the example below:

XXXX - YY - ZZZZ...

where **XXXX** refers to the registration number of the notified body issuing the EC-Type examination certificate, **YY** refers to the category of article in abbreviated format (T1 or T2, respectively) and where **ZZZZ...** is a processing number given by the notified body.

4.5 Net explosive content

The labelling shall include the net explosive content of the article. The abbreviation for the net explosive content (NEC) may be used.

4.6 Printing

Labelling shall be clearly visible, easily legible, indelible and on a contrasting background. Printing errors, which are not misleading, are not classified as faults. When measured in accordance with EN 16256-5:2012, 6.6, the type sizes shall be such that the height of the character 'X' (in upper case) is at least 2,1 mm.

The minimum height of the CE-marking shall be 5 mm.

4.7 Marking of very small items

If the article does not provide enough space to carry all the specified information, the manufacturer or importer shall provide at least the following information on the article (for example attached to the wire):

- CE-marking followed by the identification number of the notified body (see 4.9)
- registration number (see 4.4);
- the word "*Pyrotechnic*" and the generic type (see 4.3).

Additionally, all information required by this European Standard shall be provided on the smallest piece of packaging. Where the information printed on the primary pack might be affected by the opening of the pack, the manufacturer will ensure that the pack design prevents loss of information when the label is broken.

4.8 Minimum Age limits and Safety Distances

Minimum age limits and safety distance parameters are specified in Clause 5 for T1 products and Clause 6 for T2 products.

4.9 Identification number of the notified body

CE-marking shall be followed by the identification number of the Notified Body responsible for:

- monitoring the existing quality system in case of Modules D, E according to Directive 2007/23/EC and/or
- checking conformity to type according to Module C according to Directive 2007/23/EC.

4.10 Instructions for use, safety and disposal information

Safety information shall be emphasised by use of a heading, or bold type, or similar. If the article or smallest piece of packaging is not labelled with the required information then the article or smallest piece of packaging shall be labelled with the sentence "*User must read and follow the instructions enclosed given by the manufacturer*", emphasised by use of a heading, or bold type, or similar.'

The manufacturer shall provide "Instructions for use" with the article. These shall include the following information:

- operating instructions for safe functioning;
- misfire procedures;
- storage and handling procedures;
- disposal procedures.

5 Category T1 Articles

The minimum age limits applicable in the country in which the article is offered for retail sale shall be clearly stated on the label. The minimum age limit of 18 years applies, if the individual Member State has not raised or lowered these age limits according to Directive 2007/23/EC Art. 7 (2).

The minimum safety distance(s) shall be placed in a text box using the following phrases:

- 'Minimum safety distance in direction of the effect' and
- 'Minimum radial safety distance' or
- 'Minimum safety distance'.

And where applicable according to Table 1 and Table 3 of EN 16256-3:2012, the phrase "*FOR OUTDOOR USE ONLY*" shall be stated in upper case on the label in the text box.

Additional information from Table A.1 may be stated and shall follow the same format as the mandatory information. This information shall be separate from the textbox containing the mandatory parameters.

6 Category T2 Articles

"*For use only by persons with specialist knowledge*" shall be stated on the label.

For every generic type the following information shall be indicated:

- effect distance (denoted by A);
- sound pressure level including the measuring distance (denoted by B);
- the hazardous debris distance (denoted by C);
- information on incandescent particles returning to the level from which the device was fired (denoted by D); and
- radial effect distance (denoted by T).

The above mentioned information is necessary for calculating the minimum safety distances and shall be given in a textbox on the label. If any of the information above is not applicable or has a value of "0", it can be

indicated on the label with the value "0". Where space permits the statements "*Article to be used in accordance with written instructions and national regulations.*" and "*Minimum safety distances to be determined by the user with the supplied product data.*" shall also be given on the label.

The above mentioned parameters shall be placed alongside the corresponding letters given in Table A.1 together with the SI units. If incandescent particles are returning to the level from which the device was fired this shall be marked against the corresponding letter (see Annex A) with a "+". If space permits, the description of the parameters as in Table A.1 may additionally be written out in full, following the corresponding code letters.

EXAMPLE 1

Article to be used in accordance with written instructions and national regulations.
Minimum safety distances to be determined by the user with the supplied product data:

A: 2 m; B: 108 dB(AI _{max}) at 7 m C: 0,5 m D: + T: 3 m

Corresponding to a 2 m effect distance, with a 3 m radial effect distance, that produces a maximum A-weighted impulse sound pressure level ($L_{AI_{max}}$) of 108 dB(AI) at 7 m, produces hazardous debris to a maximum distance of 0,5 meters and has incandescent particles hitting the level at which the article was fired.

EXAMPLE 2

Article to be used in accordance with written instructions and national regulations.
Minimum safety distances to be determined by the user with the supplied product data:

A: 5 m	B: 108 dB(AI _{max}) at 7 m	T: 1 m
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Corresponding to a 5 m effect distance, that produces a maximum A-weighted impulse sound pressure level ($L_{AI_{max}}$) 108 dB(AI) at 7 m, with a 1 m radial effect distance, produces no hazardous debris and has no incandescent particles hitting the level from which the article was fired when fired upright according to the users instructions.

EXAMPLE 3

Article to be used in accordance with written instructions and national regulations.
Minimum safety distances to be determined by the user with the supplied product data:

A (effect distance): 5 m B (sound pressure level including the measuring distance): 108 dB(AI _{max}) at 7 m T (radial effect distance): 1 m

Corresponding to a 5 m effect distance, that produces a maximum A-weighted impulse sound pressure level of 108 dB(AI) at 7 m, with a 1 m radial effect distance, produces no hazardous debris and has no incandescent particles hitting the level from which the article was fired when fired upright according to the users instructions.

Additional information according to Table A.1 may be indicated on the label and shall follow the same format as the mandatory information. This information shall be separate from the textbox containing the mandatory parameters.

The written "User instructions" shall state:

"Minimum Safety Distance: to be determined by user (person with specialist knowledge) with best available safety measures according to effect, performance characteristics, specific parameters and surrounding conditions."

Annex A (normative)

List of mandatory and optional parameters and corresponding codes

Table A.1 contains a list of mandatory and optional parameters and corresponding codes.

Table A.1 — List of mandatory and optional parameters and corresponding codes

Code	Status ^a	Description	Examples/Comments
A	M	effect distance	
B	M	sound pressure level including the measuring distance	Value at a distance
C	M	the hazardous debris distance	
D	M	information on incandescent particles returning to the level from which the device was fired	“+” if effect reaches ground
E	O	effect range	This parameter is mandatory for aqua fireworks
F	O	effect broadness	
G	O	calibre	If not required in description
H	O	initial fuse time	
I	NOT USED to avoid ambiguity with number “1”.		
J	O	flight time	
K	O	effect time	e. g. Duration of stars
L	O	flash powder content	
M	O	gross mass	
N	O	effect	If not explicit in description or name
O	NOT USED to avoid ambiguity with number “0”.		
P	O	classification reference	e. g. CAD reference
Q	O	drift	
R	O	overall duration	
S	O	if there are multiple effects	“+” in case of multiple explosion, followed by the number of explosions
T	M	radial effect distance	
U	NOT USED to avoid ambiguity with “V”.		
V	O	burning rate	
W	O	maximum firing angle	

^a This column gives the status, whereas M means: This information is mandatory. O means: This information is optional (depending on type or at discretion of manufacturer).

Annex B (informative)

Overview of essential safety requirements and corresponding clauses of all parts of this European Standard

The correspondence between the parts of this European Standard and Directive 2007/23/EC on the placing on the market of pyrotechnic articles can be found in Annex ZA of each Part of the standard.

Table B.1 gives an overview about all essential safety requirements and the corresponding clauses and subclauses of all parts of the European Standard.

Table B.1 — Overview of essential safety requirements and corresponding clauses of all parts this European Standard

Essential Requirements (ESR) of Directive 2007/23/EC	Clause(s)/sub-clause(s) of			Qualifying remarks/Notes
	EN 16256-3:2012	EN 16256-4:2012	EN 16256-5:2012	
1	7			
2	1, 4	4.10	6.9	
3; 1 st sentence	7, 9, 10		6.15	
3; 2 nd and 3 rd sentence	9, 10		4	
3 (a)	4, 5, 9.1, 10		6.1, 6.2	
3 (b)	7, 9, 10		6.12, 6.13	
3 (c)	7.1, 9.2, 10		6.12, 6.13	
3 (d)	7, 9.2, 10		6.13, 6.15	
3 (e)				Not applicable.
3 (f)	9.2, 10		6.13	
3 (g)	6, 9.2, 10	4.10	6.14	
3 (h)	8, 9.2, 10.4	4, 5, 6		
3 (i)	7.1, 9.2, 9.3, 10		6.12, 6.13	
3 (j)		4, 5, 6		
3; last sentence	7.1, 9.2, 10		6.12	
4 (a)	1			
4 (b)	1			

Annex ZA (informative)

Relationship between this European Standard and the Essential Requirements of EU Directive 2007/23/EC on the placing on the market of pyrotechnic articles

This European Standard has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association to provide a means of conforming to Essential Requirements of the New Approach Directive 2007/23/EC on the placing on the market of pyrotechnic articles. The Parts 1 and 2, of the European Standard will support Parts 3, 4 and 5 to fulfil the essential safety requirements of the Directive 2007/23/EC Annex 1.

Once this standard is cited in the Official Journal of the European Union under that Directive and has been implemented as a national standard in at least one Member State, compliance with the clauses of this standard given in Table ZA.1 confers, within the limits of the scope of this standard, a presumption of conformity with the corresponding Essential Requirements of that Directive and associated EFTA regulations.

Table ZA.1 — Correspondence between this European Standard and Directive 2007/23/EC on the placing on the market of pyrotechnic articles

Clause(s)/sub-clause(s) of this EN	Essential Safety Requirements (ESRs) of Directive 2007/23/EC	Qualifying remarks/Notes
4.10	2	See also EN 16256-3:2012, Clauses 1 and 4 and EN 16256-5:2012, 6.9.
4.10	3(g)	See also 6, 9.2, 10 of EN 16256-3:2012 and 6.14 of EN 16256-5:2012
4, 5, 6	3 (h)	See also 8, 9.2, 10.4 of EN 16256-3:2012
4, 5, 6	3 (j)	

WARNING — Other requirements and other EU Directives may be applicable to the product(s) falling within the scope of this standard.

Bibliography

EN 16256-2, *Pyrotechnic articles – Theatrical pyrotechnic articles – Part 2: Categories of theatrical pyrotechnic articles*

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