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NSAI Standards

Irish Standard
I.S. EN ISO 14451-5:2013

Pyrotechnic articles - Pyrotechnic articles for vehicles - Part 5: Requirements and categorization for airbag gas generators (ISO 14451-5:2013)

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EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN ISO 14451-5

March 2013

ICS 43.040.80

English Version

Pyrotechnic articles - Pyrotechnic articles for vehicles - Part 5: Requirements and categorization for airbag gas generators (ISO 14451-5:2013)

Articles pyrotechniques - Articles pyrotechniques pour véhicules - Partie 5: Exigences relatives aux générateurs de gaz de sac gonflable et leur classement en catégories (ISO 14451-5:2013)

Pyrotechnische Gegenstände - Pyrotechnische Gegenstände für Fahrzeuge - Teil 5: Anforderungen und Kategorisierung von Airbaggasgeneratoren (ISO 14451-5:2013)

This European Standard was approved by CEN on 9 February 2013.

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Foreword

This document (EN ISO 14451-5:2013) has been prepared by Technical Committee CEN/TC 212 “Pyrotechnic articles” the secretariat of which is held by NEN, in collaboration with Technical Committee ISO/TC 22 "Road vehicles".

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of an identical text or by endorsement, at the latest by September 2013, and conflicting national standards shall be withdrawn at the latest by September 2013.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.

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

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.

Endorsement notice

The text of ISO 14451-5:2013 has been approved by CEN as EN ISO 14451-5:2013 without any modification.

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Annex ZA
(informative)

Relationship between this European Standard and the Essential Requirements of EC 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 one means of conforming to Essential Requirements of the New Approach Directive 2007/23/EC on the placing on the market of pyrotechnic articles.

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 normative 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 *(1 of 2)*

Clause(s)/sub-clause(s) of this document	Essential Safety Requirements (ESRs) of Directive 2007/23/EC	Qualifying remarks/Notes
4.8, 4.9	(1)	Note: It is taken into account that the intended purpose of the pyrotechnic article is to function in a vehicle in case of accidents
	(2)	See ISO 14451-2
4.9	(3) 1st sentence	
4.9	(3) 2nd and 3rd sentences	Note: It is taken into account that the intended purpose of the pyrotechnic article is to function in a vehicle in case of accidents
4.2	(3a)	
4.5	(3b)	
4.3, 4.4, 4.6	(3c)	
4.5	(3d)	
4.5	(3e)	
4.4, 4.5	(3f)	
4.6	(3g)	
	(3h)	See ISO 14451-3
4.3, 4.5	(3i)	
	(3j)	See ISO 14451-2
4.3, 4.4, 4.6	(3) Last sentence	
1	(4a)	
1	(4b)	

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Table ZA.1 — *(2 of 2)*

Clause(s)/sub-clause(s) of this document	Essential Safety Requirements (ESRs) of Directive 2007/23/EC	Qualifying remarks/Notes
4.2, 4.9, 6	(5 B.1)	
	(5 B.2)	See ISO 14451-2 and ISO 14451-3
4.6, 4.7	(5 B.3)	
	(5 B.4)	Not applicable
	(5 C.1) to (5 C.5)	Not applicable
4.2	(5 C.6)	
	(5 C.7)	Not applicable

WARNING — Other requirements and other EU Directives may be applicable to the product(s) falling within the scope of this part of EN ISO 14451.

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I.S. EN ISO 14451-5:2013

INTERNATIONAL STANDARD

ISO 14451-5

First edition
2013-03-15

Pyrotechnic articles — Pyrotechnic articles for vehicles —

Part 5: Requirements and categorization for airbag gas generators

Articles pyrotechniques — Articles pyrotechniques pour véhicules —

Partie 5: Exigences relatives aux générateurs de gaz de sac gonflable et leur classement en catégories

Reference number
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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

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

ISO 14451-5 was prepared by the European Committee for Standardization (CEN) Technical Committee CEN/TC 212, *Pyrotechnic articles*, in collaboration with Technical Committee ISO/TC 22, *Road vehicles*, Subcommittee SC 12, *Passive safety crash protection systems*, in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

ISO 14451 consists of the following parts, under the general title *Pyrotechnic articles — Pyrotechnic articles for vehicles*:

— *Part 1: Terminology*

— *Part 2: Test methods*

— *Part 3: Labelling*

— *Part 4: Requirements and categorization for micro gas generators*

— *Part 5: Requirements and categorization for airbag gas generators*

— *Part 6: Requirements and categorization for airbag modules*

— *Part 7: Requirements and categorization for seatbelt pretensioners*

— *Part 8: Requirements and categorization for igniters*

— *Part 9: Requirements and categorization for actuators*

— *Part 10: Requirements and categorization for semi-finished products*

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Pyrotechnic articles — Pyrotechnic articles for vehicles —

Part 5: Requirements and categorization for airbag gas generators

1 Scope

This part of ISO 14451 specifies the types and order of tests to be applied to the airbag gas generators and sets out the acceptance criteria and means of categorization.

This part of ISO 14451 applies to type tests.

This part of ISO 14451 is not applicable to articles containing military explosives or commercial blasting agents except for black powder or flash composition.

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.

ISO 14451-1, *Pyrotechnic articles — Pyrotechnic articles for vehicles — Part 1: Terminology — Pyrotechnic articles for vehicles —Part 1: Terminology*

ISO 14451-2:2013, *Pyrotechnic articles — Pyrotechnic articles for vehicles — Part 2: Test methods — Pyrotechnic articles for vehicles —Part 2: Test methods*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 14451-1 apply.

4 Requirements and acceptance criteria

4.1 General

Airbag gas generators shall meet the requirements specified in 4.2 to 4.9 taking into account the test matrix of Clause 5.

4.2 Verification of design and documentation

Documentation shall be complete as specified in ISO 14451-2:2013, 4.1.

4.3 Drop test

4.3.1 Requirements

Airbag gas generators shall be tested as specified in ISO 14451-2:2013, 4.2.

4.3.2 Acceptance criteria

No ignition of the airbag gas generator shall occur.

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