

**Pürotehnilised tooted. Muud pürotehnilised tooted.
Padrunid pulbriga toimivatele tööriistadele**

**Pyrotechnic articles - Other pyrotechnic articles -
Cartridges for powder actuated tools**

EVS

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

See Eesti standard EVS-EN 16264:2014 sisaldab Euroopa standardi EN 16264:2014 inglisekeelset teksti.	This Estonian standard EVS-EN 16264:2014 consists of the English text of the European standard EN 16264:2014.
Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas.	This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation.
Euroopa standardimisorganisatsioonid on teinud Euroopa standardi rahvuslikele liikmetele kättesaadavaks 03.09.2014.	Date of Availability of the European standard is 03.09.2014.
Standard on kättesaadav Eesti Standardikeskusest.	The standard is available from the Estonian Centre for Standardisation.

Tagasisidet standardi sisu kohta on võimalik edastada, kasutades EVS-i veebilehel asuvat tagasiside vormi või saates e-kirja meiliaadressile standardiosakond@evs.ee.

ICS 71.100.30

Standardite reprodutseerimise ja levitamise õigus kuulub Eesti Standardikeskusele

Andmete paljundamine, taastekitamine, kopeerimine, salvestamine elektroonsesse süsteemi või edastamine ükskõik millises vormis või millisel teel ilma Eesti Standardikeskuse kirjaliku loata on keelatud.

Kui Teil on küsimusi standardite autorikaitse kohta, võtke palun ühendust Eesti Standardikeskusega:
Aru 10, 10317 Tallinn, Eesti; www.evs.ee; telefon 605 5050; e-post info@evs.ee

The right to reproduce and distribute standards belongs to the Estonian Centre for Standardisation

No part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying, without a written permission from the Estonian Centre for Standardisation.

If you have any questions about copyright, please contact Estonian Centre for Standardisation:
Aru 10, 10317 Tallinn, Estonia; www.evs.ee; phone 605 5050; e-mail info@evs.ee

English Version

Pyrotechnic articles - Other pyrotechnic articles - Cartridges for powder actuated tools

Articles pyrotechniques - Autres articles pyrotechniques -
Cartouches d'outils actionnés par poudre

Pyrotechnische Gegenstände - Sonstige pyrotechnische
Gegenstände - Kartuschen für kartuschenbetriebene
handgehaltene Werkzeuge

This European Standard was approved by CEN on 8 February 2014.

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
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels

Contents

Page

Foreword	3
1 Scope	4
2 Normative references	4
3 Terms and definitions	5
4 Standard equipment	11
5 Requirements	11
5.1 Design documentation	11
5.2 Design	12
5.3 Dimensions.....	12
5.4 Pressure measurement	16
5.5 Energy measurement	25
5.6 Collation test	28
5.7 Residue test.....	31
5.8 Physical and chemical stability test	42
5.9 Mechanical conditioning test	43
5.10 Extreme temperature test	43
5.11 Safety test.....	44
6 Categorization	48
7 Minimum labelling	48
7.1 Single cartridges.....	48
7.2 Primary packs	49
Annex A (normative) Testing of cartridges for powder actuated tools	50
A.1 Type Testing (module B 2007/23/EC Annex II).....	50
A.2 Batch tests by producer during production	50
Annex B (informative) Mechanical conditioning test equipment	54
Annex C (normative) Graphical symbols	57
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	58
Bibliography	59

Foreword

This document (EN 16264:2014) 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 March 2015 and conflicting national standards shall be withdrawn at the latest by March 2015.

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 2007/23/EC on the placing on the market of pyrotechnical articles.

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

The “Permanent International Commission for the Proof of Small-Arms, C.I.P.” has contributed substantially to this standard. The C.I.P. regulations pertinent to cartridges for powder actuated tools have been largely integrated in the present standard and the current states of technology are matched.

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.

EVS

1 Scope

This European Standard defines the procedures for classifying, testing and labelling of cartridges for powder actuated tools (PAT cartridges), as defined in Clause 3 of this standard.

This European Standard does not apply to pyrotechnic articles containing blasting agents and military explosives except black powder and flash composition.

PAT cartridges contain pyrotechnic composition(s) delivering mainly gases, intended to propel a piston. The piston propels fasteners (e.g. nails) or drives hard marking characters into appropriate materials.

This standard also applies to PAT cartridges sold to persons younger than 18 years, if this is permitted by the member state due to the low hazard of the PAT cartridges.

NOTE PAT cartridges can also be used for hard marking tools. Information on cartridge operated fixing and hard marking tools can be found in EN 15895:2011.

This European Standard applies to the cartridges listed in Table 1.

Table 1 — Lists of the established calibres for PAT cartridges

	Calibre
Rimfire type	22 NC (5,5/16)
	22 (5,6/16)
	22 EX (5,6/25)
	5,7/16
	5,7/25
	6,3/10
	6,3/12
	6,3/14
	6,3/16
	6,8/11
	6,8/18
Centre fire type	9 × 17
	9 × 20
	9 × 27
	38 SP (9 × 29)

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 ISO 3611, *Geometrical product specifications (GPS) — Dimensional measuring equipment: Micrometers for external measurements — Design and metrological characteristics (ISO 3611)*

EN ISO 9237, *Textiles — Determination of the permeability of fabrics to air (ISO 9237)*

EN ISO 13385-1, *Geometrical product specifications (GPS) — Dimensional measuring equipment — Part 1: Callipers; Design and metrological characteristics (ISO 13385-1)*

ISO 2137, *Petroleum products and lubricants — Determination of cone penetration of lubricating greases and petrolatum*

3 Terms and definitions

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

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

3.2

base material

material into which the fastener or marking punch is driven

3.3

calibre

designation of a cartridge, normally expressed in the form “body diameter / length”

Note 1 to entry: See Scope for applicable cartridge calibres.

3.4

cartridge for powder actuated tools (PAT)

device which contains a minor quantity of primer mix together with a larger quantity of solid propellant used to drive the piston of a fixing or hard marking tool

3.5

single cartridge

loose cartridge

cartridge that is not mechanically attached to other cartridges and is inserted individually in the cartridge chamber (by hand)

3.6

collated cartridge

cartridge that is contained with a number of others in a means of collation, e.g. a plastic collation strip or a metal disc

3.7

cartridge chamber

essentially cylindrical or slightly conical bore which accommodates the cartridge before ignition; located in the rear end of the piston guide of a cartridge operated tool; the dimensions of the cartridge chamber correspond to cartridge calibre

3.8

powder actuated tool

PAT

tool to drive fasteners into a base material by means of a piston powered by the hot combustion gases from a cartridge