

**Tsiviilkäibes olevad lõhkeained.
Püssirohud ja raketipüssirohud. Osa 1:
Nõuded**

Explosives for civil uses - Propellants and rocket
propellants - Part 1: Requirements

EESTI STANDARDI EESSÖNA**NATIONAL FOREWORD**

Käesolev Eesti standard EVS-EN 13938-1:2004 sisaldb Euroopa standardi EN 13938-1:2004 + AC:2006 ingliskeelset teksti. Käesolev dokument on jõustatud 21.12.2004 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes. Standard on kätesaadav Eesti standardiorganisatsioonist.	This Estonian standard EVS-EN 13938-1:2004 consists of the English text of the European standard EN 13938-1:2004 + AC:2006. This document is endorsed on 21.12.2004 with the notification being published in the official publication of the Estonian national standardisation organisation. The standard is available from Estonian standardisation organisation.
---	--

Käsitlusala: This European Standard specifies the requirements for propellants, solid rocket propellants, powder cakes and black powders for civil uses.	Scope: This European Standard specifies the requirements for propellants, solid rocket propellants, powder cakes and black powders for civil uses.
--	--

ICS 71.100.30**Võtmesõnad:**

October 2004

ICS 71.100.30

English version

Explosives for civil uses - Propellants and rocket propellants -
Part 1: Requirements

Explosif à usage civil - Poudres propulsives et propergols
pour fusées - Partie 1 : Exigences

Explosivstoffe für zivile Zwecke - Treibladungspulver und
Raketentreibstoffe - Teil 1: Anforderungen

This European Standard was approved by CEN on 23 August 2004.

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 Central Secretariat 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 Central Secretariat has the same status as the official versions.

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



EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

Management Centre: rue de Stassart, 36 B-1050 Brussels

Contents

	Page
Foreword	3
1 Scope	4
2 Normative references	4
3 Terms and definitions	4
4 Requirements	5
4.1 Resistance to electrostatic energy - Solid gun propellants	5
4.2 Deflagration to detonation transition - Solid gun propellants	5
4.3 Burning rate under ambient conditions	5
4.4 Voids and fissures - Solid rocket propellants	5
4.5 Integrity of inhibitor coatings - Solid rocket propellants	5
4.6 Properties of black powders for blasting	6
4.7 Thermal stability - Solid gun propellants, solid rocket propellants and black powder	6
4.8 Sensitiveness to friction	6
4.9 Sensitiveness to impact	6
Annex ZA (informative) Clauses of this European Standard addressing essential requirements or other provisions of EU Directives.	7
Bibliography	8

Foreword

This document (EN 13938-1:2004) has been prepared by Technical Committee CEN/TC 321, "Explosives for civil uses", the secretariat of which is held by AENOR.

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 April 2005, and conflicting national standards shall be withdrawn at the latest by April 2005.

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 a series of standards with the generic title *Explosives for civil uses - Propellants and Rocket Propellants*. The other parts of this series are listed below:

- EN13938-2 *Part 2: Determination of resistance to electrostatic energy.*
- EN13938-3 *Part 3: Determination of deflagration to detonation transition.*
- EN13938-4 *Part 4: Determination of burning rate under ambient conditions.*
- EN13938-5 *Part 5: Solid rocket propellants. Determination of voids and fissures*
- EN13938-6 *Part 6: Solid rocket propellants. Guide for the determination of integrity of inhibitor coatings.*
- EN13938-7 *Part 7: Determination of properties of black powder.*

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

1 Scope

This document specifies the requirements for propellants, solid rocket propellants, powder cakes and black powders for civil uses.

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.

EN 13631-2; *Explosives for civil uses — High explosives — Part 2: Determination of thermal stability of explosives*.

EN 13631-3; *Explosives for civil uses — High explosives — Part 3: Determination of sensitiveness to friction of explosives*.

EN 13631-4; *Explosives for civil uses — High explosives — Part 4: Determination of sensitiveness to impact of explosives*.

EN 13857-1:2003; *Explosives for civil uses — Part 1: Terminology*.

EN 13938-2; *Explosives for civil uses — Propellants and rocket propellants — Part 2: Determination of resistance to electrostatic energy*.

EN 13938-3; *Explosives for civil uses — Propellants and rocket propellants — Part 3: Determination of deflagration to detonation transition*.

EN 13938-4; *Explosives for civil uses — Propellants and rocket propellants — Part 4: Determination of burning rate under ambient conditions*.

EN 13938-5; *Explosives for civil uses — Propellants and rocket propellants — Part 5: Determination of voids and fissures*.

EN 13938-7; *Explosives for civil uses — Propellants and rocket propellants — Part 7: Determination of properties of black powder*.

3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN 13857-1:2003 and the following apply.

3.1

powder cake

substance consisting of nitro-cellulose impregnated with not more than 60 %, by mass, of nitro-glycerine or other liquid organic nitrates or a mixture of these.