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Del 7: Bestämning av svartkruts egenskaper

Explosives for civil uses – Propellants and rocket propellants –

Part 7: Determination of properties of black powder

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Telefon: 08 - 555 523 10. *Telefax:* 08 - 555 523 11
E-post: sis.sales@sis.se. *Internet:* www.sis.se

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English version

**Explosives for civil uses - Propellants and rocket propellants -
Part 7: Determination of properties of black powder**

Explosifs à usage civil - Poudre propulsive et propergol
pour fusée - Détermination des propriétés de la poudre
noire

Explosivstoffe für zivile Zwecke - Treibladungspulver und
Raketentreibstoffe - Teil 7: Bestimmung der Eigenschaften
von Schwarzpulver

This European Standard was approved by CEN on 21 June 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.

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

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

EN 13938-7:2004 (E)

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Foreword

This document (EN 13938-7:2004) 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of an identical text or by endorsement, at the latest by February 2005, and conflicting national standards shall be withdrawn at the latest by February 2005.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 document 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:

prEN 13938-1 Part 1: Requirements

prEN 13938-2 Part 2: Determination of resistance to electrostatic energy

EN 13938-3 Part 3: Determination of deflagration to detonation transition

EN 13938-4 Part 4: Determination of burning rate under ambient conditions

EN 13938-5 Part 5: Determination of voids and fissures

EN 13938-6 Part 6: Guide for the determination of integrity of inhibitor coatings

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.

EN 13938-7:2004 (E)

1 Scope

This document specifies the test methods for black powder in pellets, granular form, compressed (press-moulded cylinders with central hollow space) or as a meal for use as propellant, blasting explosive, pyrotechnic or in safety fuses.

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

EN ISO/IEC 17025, *General requirements for the competence of testing and calibration laboratories (ISO/IEC 17025:1999)*

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

bulk density

mass of a free-flowing substance poured into a measuring cylinder divided by its corresponding volume

3.2

free-flowing substance

substance in such a form that it can be readily transferred from one cylinder to another by pouring to give one continuous, homogeneous mass

4 Preparation of test samples

For granular black powder some test methods given in 5.1 and 5.2 imply a preparation of the sample, e.g. by sieving. Details are given in the corresponding documents, the reference of which is given in Clause 2.