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Explosivstoffe für zivile Zwecke - Sprengstoffe - Teil 4: Bestimmung der Schagempfindlichkeit von Explosivstoffen

This European Standard was approved by CEN on 11 July 2002.

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 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 Management Centre has the same status as the official versions.

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Contents

Foreword

This document (EN 13631-4:2002) 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of an identical text or by endorsement, at the latest by March 2003, and conflicting national standards shall be withdrawn at the latest by March 2003.

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 on *Explosives for civil uses* - *High explosives* . The other parts of this series are:

prEN 13631-1 *Part 1: Requirements.*

EN 13631-2 *Part 2: Determination of thermal stability of explosives.*

prEN 13631-3 *Part 3: Determination of sensitiveness to friction of explosives.*

EN 13631-5 *Part 5: Determination of resistance to water.*

EN 13631-6 *Part 6: Determination of resistance to hydrostatic pressure.*

prEN 13631-7 *Part 7: Determination of safety and reliability at extreme temperatures.*

prEN 13631-10 *Part 10: Method for the verification of the means of initiation.*

prEN 13631-11 *Part 11: Determination of transmission of detonation.*

prEN 13631-12 *Part 12: Determination of the initiating capability of boosters.*

prEN 13631-13 *Part 13: Method for the determination of density.*

prEN 13631-14 *Part 14: Method for the determination of velocity of detonation.*

prEN 13631-15 *Part 15: Calculation of thermodynamic properties.*

prEN 13631-16 *Part 16: Detection and measurement of toxic gases.*

Annex A of this document is informative.

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

1 Scope

This European Standard specifies a method for determining the sensitiveness to impact of explosives.

2 Normative references

This European Standard incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text, and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies (including amendments).

prEN 13857-1:2001, *Explosives for civil uses – Part 1: Terminology.*

EN ISO 683-17:1999, *Heat-treated steels, alloy steels and free-cutting steels – Part 17: Ball and roller bearing steels (ISO 683-17:1999).*

EN ISO 4957, *Tool steels (ISO 4957:1999).*

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 European Standard, the following terms and definitions apply in addition to those given in prEN 13857-1:2001:

3.1
reaction
occurrence of report or flame

3.2
drop height
distance between the uppermost part of the impact device and the lower face of the striking head immediately before the drop

3.3
impact energy
energy of the drop weight immediately before impact, calculated by multiplying the mass of the drop weight by the drop height and by the acceleration due to gravity

NOTE For practical purposes, the acceleration due to gravity is rounded to 10 m/s² so that, for example, with a drop weight of mass 1 kg and a drop height of 500 mm the impact energy is assumed to be 5 J.

3.4
sensitiveness to impact
lowest impact energy at which a reaction is obtained from at least one out of six tests

4 Principle

A weight of known mass is dropped onto a sample of the explosive which is confined in a way that during the impact of the weight no significant friction is applied to the explosive.