



BSI Standards Publication

Explosives for civil uses

Part 1: Vocabulary

National foreword

This British Standard is the UK implementation of EN 13857-1:2025. It supersedes BS EN 13857-1:2003, which is withdrawn.

The UK participation in its preparation was entrusted to Technical Committee CII/61, Explosives for civil uses.

A list of organizations represented on this committee can be obtained on request to its committee manager.

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Amendments/corrigenda issued since publication

Date	Text affected
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English Version

Explosives for civil uses - Part 1: Vocabulary

Explosifs à usage civil - Partie 1 : Vocabulaire

Explosivstoffe für zivile Zwecke - Teil 1: Begriffe

This European Standard was approved by CEN on 15 September 2025.

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EUROPEAN COMMITTEE FOR STANDARDIZATION
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European foreword

This document (EN 13857-1:2025) has been prepared by Technical Committee CEN/TC 321 “Explosives for civil uses”, the secretariat of which is held by UNE.

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of an identical text or by endorsement, at the latest by April 2026, and conflicting national standards shall be withdrawn at the latest by April 2026.

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

This document supersedes EN 13857-1:2003.

In comparison with the previous edition, the following technical modifications have been made:

- a) all definitions have been revised;
- b) the following terms have been added: acceptor cartridge, acceptor cord, acceptor detonator, all-fire impulse, blast bunker, blast chamber, blasthole, blasting circuit, blasting explosive, borehole, burning rate, cartridge, charge, complete detonation, confined test, confinement, connector, control unit, core of detonating cord, coupling accessory, critical defect, defect, delay composition, delay series, density, detonation front, detonator base, detonator top, donor cartridge, donor cord, donor detonator, drop test, dummy detonator, electric igniter, electronic initiation system, electronic initiation system using no data communication, electronic initiation system using one-way data communication, electronic initiation system using two-way data communication, electrostatic discharge, explosive for blasting, explosive article, explosive core, explosive material, explosive substance, failure, fault, firing line, firing test range, firing unit, firing voltage, free-fall drop test, free-flowing explosive, fuse head, guided drop test, hot wire, ignition, ignition wire, indentation, initiation, insensitiveness to friction, insensitiveness to impact, insulation breakdown, insulation resistance, large rocket motor, leading wires, loading, major defect, means of ignition, means of initiation, mechanical loading, minor defect, misfire, no-fire current, no-fire impulse, non-free-flowing explosive, outlier, overlapping, pins-to-case configuration, pin-to-pin configuration, powder cake, pre-programmed electronic detonator, programmable electronic detonator, programming unit, programming voltage, reference detonator, remote firing system, rocket motor, rocket propellant, round, semi-finished detonator, shell, small rocket motor, solid gun propellant, solid propellant, solid rocket propellant, surface delay systems, sympathetic detonation, test piece, test sample, testing unit, testing voltage, thermal stability, transfer capability, trigger detonator, unconfined test, unloaded detonator, witness detonator;
- c) the following terms have been removed: blasting accessory, decomposition, evidence of reaction, extreme conditions, extreme temperature, firing time, gap test, high explosive, nominal delay interval, primary explosive, propagation of detonation, range of applicability of test method, range of validity of test method, sensitizer, sensitiveness;
- d) Clause 3 now contains subclause and the terms have been assigned to these accordingly;
- e) cross-references to other terms defined in this document have been added to the definitions;
- f) an index has been added;
- g) the Bibliography has been revised.

This document has been prepared under a standardization request addressed to CEN by the European Commission. The Standing Committee of the EFTA States subsequently approves these requests for its Member States.

A list of all parts in the EN 13857 series, published under the general title *Explosives for civil uses*, can be found on the CEN website.

Any feedback and questions on this document should be directed to the users' national standards body. A complete listing of these bodies can be found on the CEN website.

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1 Scope

This document defines terms and definitions used in documents prepared by CEN/TC 321 for explosives for civil uses.

2 Normative references

There are no normative references in this document.

3 Terms and definitions

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

ISO and IEC maintain terminology databases for use in standardization at the following addresses:

- ISO Online browsing platform: available at <https://www.iso.org/obp>
- IEC Electropedia: available at <https://www.electropedia.org/>

3.1 General explosives terms

3.1.1

explosives

materials and articles considered to be explosives in the United Nations recommendations on the transport of dangerous goods and falling within Class 1 of those recommendations

[SOURCE: Directive 2014/28/EU, Art. 2 (1)]

3.1.2

explosive material

material considered an *explosive* (3.1.1)

Note 1 to entry: Explosive material is capable of undergoing an *explosion* (3.1.4) due to a chemical reaction.

3.1.3

explosive article

article considered an *explosive* (3.1.1)

Note 1 to entry: An explosive article contains one or more *explosive materials* (3.1.2).

3.1.4

explosion

rapid increase in volume and release of energy with generation of high temperatures and release of gases that causes pressure waves in the material in which it occurs

Note 1 to entry: An explosion is categorized as *deflagration* (3.1.5) if the pressure waves are subsonic and as *detonation* (3.1.6) if they are supersonic (shock waves).

3.1.5

deflagration

explosion (3.1.4) with pressure waves at subsonic velocity

3.1.6

detonation

explosion (3.1.4) with pressure waves at supersonic velocity

3.1.7

complete detonation

detonation (3.1.6) where the *explosive material* (3.1.2) or the *explosive article* (3.1.3) has completely reacted

Note 1 to entry: A complete detonation can be verified by the measurement of the *velocity of detonation* (3.1.9).

3.1.8

sympathetic detonation

initiation (3.1.20) of an *explosive* (3.1.1) by the *detonation* (3.1.6) of another *explosive* in the vicinity

Note 1 to entry: The impulse from another *detonation* (3.1.6) can be transmitted through air, earth or water.

3.1.9

velocity of detonation

VOD

detonation velocity

velocity at which the *detonation* (3.1.6) moves through the *explosive material* (3.1.2)

3.1.10

detonation front

moving zone in the reacting *explosive* (3.1.1) composed of the shock that drives the *detonation* (3.1.6) and the reaction zone in which the chemical reaction takes place

3.1.11

blasting explosive

explosive for blasting

explosive (3.1.1) used for breaking rock or other materials that it is in contact with

3.1.12

explosive substance

explosive material (3.1.2) that is used for further manufacturing of *explosive articles* (3.1.3) or *explosives for blasting* (3.1.11)

EXAMPLES TNT (Trinitrotoluene), PETN (Pentaerythritol tetranitrate), RDX, HMX.

3.1.13

cartridged explosive

explosive material (3.1.2) enclosed in a *cartridge* (3.1.14) and used in this form

3.1.14

cartridge

casing containing an *explosive material* (3.1.2)

Note 1 to entry: The casing is usually made from paper, cardboard or plastics. The shape of this casing is usually cylindrical.

Note 2 to entry: A cartridge can improve handling, *loading* (3.1.26) or dosing of *explosive material* (3.1.2).

3.1.15**bulk explosive**

solid, liquid or pasty *explosive material* (3.1.2) in loose form which is not enclosed in a *cartridge* (3.1.14) and is used for blasting

Note 1 to entry: Bulk explosives can be loaded by pouring, pumping or pneumatic means.

Note 2 to entry: Solid bulk explosives include explosive material pressed in pellets or prill.

3.1.16**free-flowing explosive**

solid, liquid or pasty *explosive material* (3.1.2) in a continuous homogenous mass that is easily transferred from one container to another by pouring

3.1.17**non-free-flowing explosive**

explosive material (3.1.2) that cannot be transferred from one container to another by pouring

3.1.18**charge****explosive charge**

quantity of an *explosive material* (3.1.2) with an assigned function

3.1.19**booster**

explosive article (3.1.3) or *charge* (3.1.18) used to amplify the energy from a *detonator* (3.2.1) or a *detonating cord* (3.4.1)

3.1.20**initiation**

process of starting the chemical reaction of an *explosive* (3.1.1) that leads to an *explosion* (3.1.4)

Note 1 to entry: In practise, the terms initiation and *ignition* (3.1.22) are sometimes used interchangeably.

3.1.21**means of initiation**

means to start the chemical reaction of an *explosive* (3.1.1) that leads to an *explosion* (3.1.4)

3.1.22**ignition**

process of starting the chemical reaction of an *explosive* (3.1.1) that leads to a combustion or a *deflagration* (3.1.5)

Note 1 to entry: In practise, the terms *initiation* (3.1.20) and ignition are sometimes used interchangeably. For reasons of distinction, in CEN/TC 321 documents, the term ignition, *means of ignition* (3.1.23) and the verb “ignite” are used in connection with *explosives* (3.1.1) that, if functioning as designed, will undergo *deflagration* (3.1.5) or combustion but no *detonation* (3.1.6).

3.1.23**means of ignition**

means to start the chemical reaction of an *explosive* (3.1.1) that leads to a *deflagration* (3.1.5) or combustion