

Australian Standard™

**Explosives—Storage, transport
and use**

Part 0: Terminology

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Australian Standard™

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Part 0: Terminology

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PREFACE

This Standard was prepared by Standards Australia Committee CE/5, Explosives, to supersede AS 2189—1983, *Explosives—Glossary of terms*.

This Standard is one of a series dealing with explosives and pyrotechnics. To date the series consists of the following:

AS

2187 Explosives—Storage, transport and use

2187.0 Part 0: Terminology (this Standard)

2187.1 Part 1: Storage

2187.2 Part 2: Use of explosives

2187.4 Part 4: Pyrotechnics—Outdoor displays

It is proposed to publish a further three parts, consisting of the following:

Use of explosives

Pyrotechnics—Indoor theatrical and film sets

Pyrotechnics—Marine distress signals

Pyrotechnics—Shop goods fireworks

The objective of this Standard is to provide definitions for terms referred to in the AS 2187 series of Standards and those commonly used in the explosives and pyrotechnic industries.

Documents referred to in this Standard are listed in Appendix A.

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STANDARDS AUSTRALIA

Australian Standard

Explosives—Storage, transport and use

Part 0: Terminology

Term	Definition
acoustic warning (or sound signal or warning signal)	A distinctive audible warning, used to indicate the progress of blasting operations to persons who may be affected by the noise, air blast or vibration.
advance	The distance an excavation progresses in a tunnel drive following the firing of a round of explosives.
aerial display, high	A rocket or mortar launched pyrotechnic device which rises to a height greater than 70 m in a vertical plane above the point of launch.
aerial display, low	A rocket or mortar launched pyrotechnic device which rises to a height less than 70 m in a vertical plane above the point of launch.
aerial shell (or shell)	A firework which is designed to burst high in the air and is projected from a mortar by a lifting charge. Aerial shells are typically cylindrical or spherical canisters containing pyrotechnic or novelty effects with an internal explosive charge intended to break the shell. Attached to the base of each shell is a lift charge consisting of a propellant primed with a length of quick-match fuse, an electric igniter or green safety fuse. Aerial shells may contain stars, comets, serpents, crackers, streamers or other effects.
air blast	A shock wave generated by an explosion and transmitted through the air.
air concussion	<i>See</i> air blast
ALANFO	A mixture of ANFO and aluminium powder.
AN	Ammonium nitrate.
ANFO	A mixture of ammonium nitrate and fuel oil with or without a dye colouring agent.
ANFO charger	<i>See</i> ANFO loader
ANFO loader	Pneumatic equipment consisting of a container or pressure vessel and semiconducting charging hose used to place ANFO in drill holes.

Term	Definition
appropriate authority	<i>See</i> regulatory authority
approved	Approval by the regulatory authority having jurisdiction.
assistant	A person nominated by the operator to assist in the handling of fireworks. NOTE: The duties do not normally include crowd control.
associated works	Other magazines, process buildings and storages of energetic materials, e.g. ammonium nitrate or Class 5 dangerous goods.
authorized person	The person authorized by the regulatory authority having jurisdiction, or authorized by management to carry out a particular duty.
back break (or over break)	Ground broken beyond the design line of blast holes most recently detonated.
barrage	A rapidly fired sequence of aerial shells including bombardos which are chain fused together for ignition.
base charge (or bottom charge)	The charge loaded into the bottom of a drill hole or blast hole.
bell wire	<i>See</i> connecting wire
black powder (or gun powder)	A dry explosive consisting generally of potassium nitrate or sodium nitrate, charcoal and sulfur, which under normal conditions deflagrates rather than detonates NOTE: It has a relatively low energy output and is classified as a low explosive (UN0027 and 0028, Classification Code 1.1D).
blast hole (or shot hole)	A hole which is charged with explosives for blasting purposes.
blasting (or shot firing or shooting)	The firing of explosive charges.
blasting agents	Certain high explosives, such as those consisting primarily of ammonium nitrate, in which none of the ingredients are classified as an explosive and which normally require a booster for initiation.
blasting cap	<i>See</i> detonator
blasting explosive (or high explosive)	An explosive which contributes the majority of the work in an explosion and is used for blasting in mining, quarrying and excavations generally.
blasting machine	<i>See</i> exploder

Term	Definition
blasting mat	A mat made of rope, rubber strips, polyethylene tube or similar material, placed over the area or materials being blasted to prevent the scattering of blast-generated debris.
blasting powder	<i>See</i> black powder
blister shooting (or mud capping or plaster shooting)	The breaking of rocks or other materials by firing charges that have been placed against them and that have been confined by mud or clay.
blowpipe	A pipe which is connected to an air hose or a water hose, or both, to clean out blast holes before charging or to remove stemming material in the event of a misfire.
bombardos	Aerial shells not more than 50 mm in diameter which are chain fused together for firing in a barrage.
booster	A cap-sensitive explosive with a high VOD used generally in small quantities to rapidly attain and maintain a high rate of detonation through the main charge.
boot leg	<i>See</i> butt
bore hole	<i>See</i> drill hole
bottom charge	<i>See</i> base charge
box cut (or sinking cut)	A pattern of holes adopted for blasting to a new level below an existing floor or below existing surface mining.
branch line	A length of detonating cord or signal tube running between, and connected to, the trunkline and the primer.
brisance	The ability of an explosive to break or shatter rock by shock or impact as distinct from gas pressure.
bulk strength	The explosive strength value of a unit volume of an explosive material expressed against a standard reference such as ANFO (see also mass strength).
bulled hole	A blast hole which has been enlarged (chambered) to accommodate extra explosive over a portion of its length (usually at the bottom) by exploding a small charge.
bulling (or chambering or springing)	A procedure intended to enlarge a section of a blast hole (usually the bottom) in order to accommodate extra explosive over that section.
burden (or face burden)	The distance from the charge to the nearest free face.

Term	Definition
burn cut (or cut hole or shatter cut)	Holes drilled to provide the initial cut or void into which other holes can break and thereby form a face.
bus wire	Bare copper or aluminium wires fixed to insulators across the face, to which detonator wires are connected in parallel.
butt (or boot leg or socket)	Any portion of a drill hole or blast hole left after blasting. NOTE: It could contain some unexploded material.
candle (or Roman candle)	A pyrotechnic device consisting of a single tube containing alternate propellant and pyrotechnic units which eject the pyrotechnic units into the air and which may emit showers of sparks between each shot.
cap	<i>See</i> detonator
cap sensitive (or detonator sensitive)	A term applied to any explosive which can be reliably initiated in the unconfined state by a No. 8 detonator.
capped fuse (or rod or tail or tape)	A length of safety fuse with a detonator crimped onto one end.
capping station (or rod room)	A special location used exclusively for preparing capped fuses.
carry box	<i>See</i> day box
cartridge (or plug or stick)	A preformed unit of high explosive enclosed in a material such as paper or plastic of a predetermined diameter and length.
chambering	<i>See</i> bulling
charge	(a) A quantity of explosive. (b) Explosive placed in a drill hole or confined space.
charging (or loading)	The act of placing explosives in the desired position for firing.
charging density	The mass of explosive in kilograms per linear metre charged in a blast hole of a given diameter.
charging hose (or loading tube)	A plastic hose or non-ferrous pipe used to facilitate the placing of explosives into the blast hole.
circuit	The wiring connecting electric detonators to each other.
circuit tester (or galvanometer or ohmmeter)	An electrical instrument, as specified in AS 2187.2, for testing a firing circuit involving electric detonators or the components thereof, or both.

Term	Definition
class	One of the nine classes into which dangerous goods are subdivided in accordance with AS 1216, the <i>Australian Dangerous Goods Code or the Australian Code for the Transport of Explosives by Road and Rail</i> (known as the AE Code).
classification	The separation of dangerous goods into classes and divisions according to their hazard characteristics.
classification code (or hazard classification)	A statement of the class, division and compatibility group to which an explosive has been assigned in accordance with the <i>Australian Code for the Transport of Explosives by Road and Rail</i> (known as the AE Code).
clay cock	<i>See</i> dummy
cleanwall blasting	<i>See</i> perimeter blasting
cookie	<i>See</i> dummy
collar	The ground immediately surrounding the opening of a drill hole.
collar burster	<i>See</i> stab hole
column charging	The charging of a drill hole with a continuous charge.
combination	<i>See</i> multishot box item
combustible	A material deemed combustible when tested in accordance with AS 1530.1.
comet	A pyrotechnic effect which burns, producing light, sparks, sound or smoke with or without self-propulsion or an explosive charge. Comets may be fired either individually or in multiples from a mortar or tube.
compatibility group (or group)	Those groups of explosives which can be stowed or carried together without significantly increasing either the probability of an accident or, for a given quantity, the magnitude of the effects of such an accident. On this criterion, explosives have been divided into a number of compatibility groups, each denoted by a code letter from A to L (excluding I), N and S. (For further information see the <i>Australian Dangerous Goods Code</i> or the <i>Australian Code for the Transport of Explosives by Road and Rail</i> .)
competent person	A person who has acquired through training, qualification, experience or a combination of these, the knowledge and skill enabling that person to correctly perform the task.
connecting wire (or bell wire)	Insulated wires (usually of a lighter gauge than the firing cables) used between the detonator lead wires and the firing cables or for lengthening the lead wire of an electric detonator.