

Glossary of

Mining terms —

Section 6: Drilling and blasting

Confirmed
January 2011

Co-operating organizations

The Mining and Quarrying Requisites Industry Standards Committee, under whose supervision this British Standard was prepared, consists of representatives from the following Government department and scientific and industrial organizations:

- Association of Mining Electrical and Mechanical Engineers*
- British Electrical and Allied Manufacturers' Association
- British Steel Industry
- Council of Underground Machinery Manufacturers
- Department of Trade and Industry*
- Engineering Equipment Users' Association
- Federation of Manufacturers of Construction Equipment and Cranes
- Institute of Quarrying
- Institution of Mechanical Engineers
- Institution of Mining Engineers*
- National Coal Board*

The Government department and industrial organizations marked with an asterisk in the above list, together with the following, were directly represented on the committee entrusted with the preparation of this British Standard:

- Institution of Mining and Metallurgy
- University of Birmingham
- University of London
- University of Nottingham

This British Standard, having been approved by the Mining and Quarrying Requisites Industry Standards Committee, was published under the authority of the Executive Board on 30 March 1972

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Foreword

This glossary has been prepared, under the authority of the Mining and Quarrying Requisites Industry Standards Committee, in order to standardize and to co-ordinate the technical terms in current use in mining in the United Kingdom. Although the majority of the terms defined in the original edition of this glossary were primarily concerned with coal mining, account has been taken of terms used in other forms of mining and of quarrying.

The need for this glossary arose from the widely varying interpretation of terms used within the industry, and the prevalent use of more than one synonym, some purely local in origin, to indicate specific meanings.

The glossary has been issued in a number of sections, according to subject matter, as follows:

- *Section 1: Planning and surveying;*
- *Section 2: Ventilation;*
- *Section 3: Boring and exploration;*
- *Section 4: Drainage;*
- *Section 5: Geology;*
- *Section 6: Drilling and blasting;*
- *Section 7: Electrical engineering and lighting;*
- *Section 8: Winning and working;*
- *Section 9: Shafts and associated equipment;*
- *Section 10: Transport;*
- *Section 11: Strata control.*

In the normal process of periodical review of the BS 3618 publications it was seen that a number of modifications and additions were desirable to Section 6, “Drilling and blasting”; therefore, since the edition was dated 1964, it was decided to publish a revision incorporating these changes.

In compiling the glossary account has been taken of the fact that terms primarily associated with coal are separately defined in BS 3323, “*Glossary of coal terms*”, and terms relating to coal preparation are defined in BS 3552, “*Glossary of terms used in coal preparation*”. The following factors also have applied in the statement, selection and definition of terms:

- 1) Where two or more terms are grouped together, the term which is favoured is printed first and in heavy type. It is hoped that such preferred terms will gradually displace the non-preferred terms. The non-preferred terms of a group are printed in small capital letters. Where the use of any term is considered to be undesirable it is marked *deprecated*.
- 2) Generally, only terms which have a specific meaning in this field have been included. Where a technical term has an accepted meaning in other fields of engineering it has been omitted; the few exceptions are terms which are of particular importance in mining.
- 3) Purely local terms are not defined, but those of sufficient importance are included as non-preferred terms.
- 4) Obsolete terms are excluded.

The subject of soil mechanics is not covered by this standard and, for terms in that field, reference should be made to CP 2001, “*Site investigations*”, and CP 2003, “*Earthworks*”.

A British Standard does not purport to include all the necessary provisions of a contract. Users of British Standards are responsible for their correct application.

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Summary of pages

This document comprises a front cover, an inside front cover, pages i to iv, pages 1 to 14 and a back cover.

This standard has been updated (see copyright date) and may have had amendments incorporated. This will be indicated in the amendment table on the inside front cover.

Glossary

Term	Definition
air blasting	A method of blasting in which compressed air at very high pressure is piped to a steel shell in a shothole and discharged.
airleg	A device, incorporating a pneumatic cylinder, providing support and thrust for a jackhammer.
ANFO	A mixture of ammonium nitrate and fuel oil in such proportions that the mixture can be detonated with a suitable initiator.
base charge	1. The detonating component in a detonator, initiated by the priming charge. 2. The bottom charge in a deep borehole in quarry blasting.
battery	<i>See exploder.</i>
bench	A part of the face of a large excavation which is not advanced as part of the round but as a separate operation.
bit	1. A cutting tool which is detachable from the drill rod. 2. The end of a drill stem that forms the actual cutting edge.
black blasting powder	<i>See black powder.</i>
black powder	A low explosive composed of sodium or potassium nitrate, charcoal and sulphur.
BLACK BLASTING POWDER	
BLACKPOWDER	
GUNPOWDER, <i>deprecated</i>	
blasting gelatine	A high explosive; the most powerful commercial explosive, taken as the standard of explosive power.
blown-out shot	A shot which has expended its force outwards down the line of the shothole without doing any appreciable blasting work.
break detector	A tool used to detect breaks or fissures intersected by a shothole. (Usually combined with a scraper.)
bulk strength	The strength of an explosive per unit volume expressed as a percentage of the value for blasting gelatine as a standard.
burden	The distance between an explosive charge and a free face which is a measure of the work to be done by the charge.
burn cut	A cut consisting of a number of holes drilled parallel and close together, some (which may be of larger diameter than the shotholes) remaining uncharged to provide a free face. (See Figure 1.)
burster	An hydraulic mechanism which, when inserted into a large diameter shothole, breaks down the strata by means of pistons operating transversely.
bursting time	The total time interval between the application of current to an instantaneous detonator and its explosion.
cap	<i>See detonator.</i>
capped fuse	A detonator fitted with a length of safety fuse.
Cardox	A method of blasting using the discharge of high pressure gaseous carbon dioxide from a steel shell.
cartridge	An individual unit of explosive, usually wrapped in the form of a cylinder.
chamber	An excavation to accommodate an explosive charge.
chambering	<i>See springing.</i>
charge	The quantity of explosive in any particular shothole.
chisel bit	A percussive bit having a single cutting edge.
circuit tester	An instrument used to test series-circuits in electrical shot-firing for continuity and resistance.