

BRITISH STANDARD

Building and civil engineering – Vocabulary –

Part 9: Work with concrete and plaster

ICS 01.040.91; 91.100.10; 91.100.30



Publishing and copyright information

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ISBN 978 0 580 60496 6

The following BSI references relate to the work on this standard:

Committee reference B/500/-/1

Draft for comment 07/30087614 DC

Publication history

Section 6.1 published in February 1984

Section 6.2 published in January 1986

Section 6.3 published in February 1984

Section 6.4 published in January 1986

Section 6.5 published in July 1987

Section 6.6.1 first published in June 1991

Section 6.6.1 second edition published in September 1992

Section 6.6.2 published in December 1990

First published as Part 9 (combined revision of BS 2900 and Sections 6.1, 6.2, 6.3, 6.4, 6.5, 6.6.1 and 6.6.2) in August 2007.

Amendments issued since publication

Amd. no.	Date	Text affected
Corrigendum No. 1	31 October 2007	Editorial corrections throughout.

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Summary of pages

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Foreword

Publishing information

This part of BS 6100 is published by BSI and came into effect on 31 August 2007. It was prepared by Technical Committee B/500, *Basic data*. A list of organizations represented on this committee can be obtained on request to its secretary.

Supersession

This part of BS 6100 has been prepared under the direction of Technical Committee B/500, *Basic data*. It supersedes BS 6100-6.1:1984, BS 6100-6.2:1986, BS 6100-6.3:1984, BS 6100-6.4:1986, BS 6100-6.5:1987, BS 6100-6.6.1:1992 and BS 6100-6.6.2:1990, which are withdrawn.

Relationship with other publications

BS 6100 consists of the following parts.

- *Part 0: Introduction and index.*
- *Part 1: General.*
- *Part 2: Spaces, building types, environment and physical planning.*
- *Part 3: Civil engineering – General.*
- *Part 4: Civil engineering – Transport.*
- *Part 5: Civil engineering – Water engineering, environmental engineering and pipelines.*
- *Part 6: Construction parts.*
- *Part 7: Services.*
- *Part 8: Work with timber and wood-based panels.*
- *Part 9: Work with concrete and plaster.*
- *Part 10: Contract terms.*
- *Part 11: Performance characteristics, measurement and joints.*
- *Part 12: Plant, equipment and persons.*

Information about this document

BS 6100 has been completely restructured and compiled on different principles than previously. Consequently, this part of BS 6100 represents a full revision of the standard.

A general introduction to and explanation of the BS 6100 vocabulary is given in BS 6100-0, which provides an alphabetical index of all the terms in all parts of BS 6100. It is intended that individual parts of BS 6100 are used in conjunction with BS 6100-0 because they do not contain indexes themselves.

BS 6100-1 reproduces verbatim ISO 6707-1 and provides a vocabulary of general terms for the building and civil engineering industry. It is essential that individual parts of BS 6100 are read in conjunction with BS 6100-1.

BS 6100 does not repeat (or provide alternatives for) terms defined in other standards or in other parts of BS 6100. However, it does refer to where definitions can be found and includes a bibliography of all referenced standards.

Presentational conventions

Details of the structure, layout and presentational conventions used in this part of BS 6100 are given in Clause 2.

Contractual and legal considerations

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

Compliance with a British Standard cannot confer immunity from legal obligations.

1 Scope

This part of BS 6100 defines terms for work with concrete and plaster, including binders, additives, aggregates, concretes and mortars, fibrous and gypsum plasters, and formwork.

2 Vocabulary structure

This part of BS 6100 does not contain its own index. Instead, a comprehensive index of terms is given in BS 6100-0. As a result, it is intended that this part of BS 6100 is used in conjunction with BS 6100-0.

The layout of this vocabulary is designed in accordance with ISO 10241 with terms arranged in a classified order and numbered in accordance with ISO 2145.

Each term has an individual number consisting of seven digits in two parts, the first of two digits, the second of five. Each number gives the following information about the term.

- a) The first two digits represent which part of BS 6100 the term belongs to.
- b) The third digit represents which group of terms it belongs to within the part.
- c) The fourth digit represents which subgroup of terms it belongs to within the group, as follows.
 - 1) Works.
 - 2) Parts.
 - 3) Materials.
 - 4) Activities.
 - 5) Processes.
 - 6) Plant, equipment and documentation.
 - 7) Properties.
 - 8) Spaces.
 - 9) Miscellaneous.
- d) The fifth to seventh digits determine the location of the term within the subgroup.

Bold words within a definition indicate terms that are defined elsewhere in this part of BS 6100, other parts of BS 6100 or other standards. Reference to where the term is defined is given in parenthesis after the bold word.

NOTE 1 References to terms defined in BS 6100-1 are shown giving only the part number, e.g. (01); references to terms defined in all other parts of BS 6100 are shown using their full reference number, e.g. (07 59005).

NOTE 2 Where more than one definition source could be referred to, the reference containing the definition of most general applicability is given.

Alternative terms are given in medium type below preferred terms which are given in bold type. All alternative terms have the status of being deprecated. Abbreviations are given in bold type below the terms to which they relate.

In the vocabulary, terms of more than one word are written in their natural word order, e.g. pedestal elbow, and the word order is not inverted, e.g. elbow, pedestal. However, inverted forms of a term are included in the index in BS 6100-0.

Terms are only given in the singular form, even when the plural form is more common (unless the term is only found in the plural form).

3 Binders, hydraulic materials and additives (09 1xxxx)

3.1 Materials (09 13xxx)

- 09 13002 latent hydraulic material**
hydraulic material that acts by the addition of an activator
NOTE Lime (BS EN 459-1) and water is a common activator.
- 09 13003 blended hydraulic cement**
mixture of **cement** (BS EN 206-1) and **latent hydraulic material** (09 13002)
- 09 13004 clinker**
solid **material** (01) formed in high temperature processes by total or partial fusion
- 09 13006 Portland cement**
cement (BS EN 206-1) based on ground **Portland cement clinker** (09 13008)
- 09 13007 calcium aluminate cement**
cement (BS EN 206-1) obtained by grinding **calcium aluminate cement clinker** (09 13009)
- 09 13008 Portland cement clinker**
clinker (09 13004) formed from a predetermined homogeneous mixture of **materials** (01) comprising **lime** (BS EN 459-1), silica, a small proportion of alumina and generally iron oxide
- 09 13009 calcium aluminate cement clinker**
clinker (09 13004) formed from a predetermined mixture of **materials** (01) consisting principally of alumina and oxides, hydroxides or carbonates of calcium with smaller proportions of iron oxides, silica and other oxides
- 09 13010 low heat Portland cement**
Portland cement (09 13006) with a heat of hydration substantially less than that of normal **Portland cement** (09 13006)

- 09 13011 sulfate-resisting Portland cement**
Portland cement (09 13006) with a low tricalcium aluminate content that produces an end product having higher resistance to attack by sulfates than one produced from ordinary **Portland cement** (09 13006)
- 09 13012 blastfurnace slag**
clinker (09 13004) produced in a molten state simultaneously with pig iron in the reduction of iron ore in a blastfurnace, and composed chiefly of calcium, magnesium and alumino-silicates
- NOTE The character of the solid is determined by the way in which the molten material is cooled.*
- 09 13013 granulated blastfurnace slag**
blastfurnace slag (09 13012) that is rapidly cooled to form granules of a shattered vitreous structure
- 09 13014 pozzolana**
latent hydraulic material (09 13002) that contains siliceous or siliceous and aluminous **materials** (01)
- 09 13015 pulverized-fuel ash**
solid **material** (01) extracted by electrostatic and mechanical means from **flue** (01) gases of furnaces fired with pulverized **bituminous coal** (BS 1846-1)
- 09 13017 Portland-slag cement**
blended hydraulic cement (09 13003) formed by mixing ground **granulated blastfurnace slag** (09 13013) and **Portland cement** (09 13006)
- 09 13018 blastfurnace cement**
blended hydraulic cement (09 13003) with a ground **granulated blastfurnace slag** (09 13013) content greater than that of **Portland-slag cement** (09 13017) and a lower proportion of **Portland cement** (09 13006)
- 09 13019 supersulfated cement**
blastfurnace cement (09 13018) with a specified proportion of sulfate
- 09 13020 Portland pozzolana cement**
blended hydraulic cement (09 13003) comprising a mixture of **Portland cement** (09 13006) and **pozzolana** (09 13014)
- 09 13021 pozzolana cement**
blended hydraulic cement (09 13003) comprising a homogeneous mixture of **Portland cement** (09 13006) and **pozzolana** (09 13014) that has passed a **test** (11 14010) of **pozzolanicity** (09 17001)
- 09 13022 composite cement**
blended hydraulic cement (09 13003) comprising up to two thirds **Portland cement** (09 13006), together with **blastfurnace slag** (09 13012), **pozzolana** (09 13014) and/or fly ash
- 09 13023 Portland composite cement**
blended hydraulic cement (09 13003) comprising predominantly **Portland cement** (09 13006) with two or more other main constituents

- 09 13024 Portland-limestone cement**
blended hydraulic cement (09 13003) based on **Portland cement** (09 13006) and **limestone** (BS EN 12670)
- 09 13025 Portland-burnt shale cement**
blended hydraulic cement (09 13003) based on **Portland cement** (09 13006) and burnt oil shale
- 09 13026 Portland-fly ash cement**
blended hydraulic cement (09 13003) based on **Portland cement** (09 13006) and fly ash
- 09 13027 Portland-silica fume cement**
blended hydraulic cement (09 13003) produced by **Portland cement** (09 13006) with silica fume
- 09 13028 calcium sulfate hemihydrate**
calcium sulfate in its partially hydrated phase ($\text{CaSO}_4 \cdot 1/2\text{H}_2\text{O}$)
- 09 13030 flocculating admixture**
admixture (01) that greatly increases cohesion by increasing the attractive forces between **binder** (01) particles
- 09 13032 pumping aid**
admixture (01) that reduces line **friction** (BS EN ISO 772) and/or increases the cohesion of the mix to prevent separation of the constituents
- 09 13033 thickening admixture**
admixture (01) that increases the **viscosity** (11 27038) of the liquid phase to reduce the tendency for separation of constituents
- 09 13034 workability retention aid**
admixture (01) that prolongs the period during which **workability** (11 27140) remains close to its initial level
- 09 13035 air detraining admixture**
admixture (01) that reduces **entrained air** (BS EN 206-1) to low levels
- 09 13037 foam forming admixture**
admixture (01) that allows a high level of air to be incorporated during mixing
- 09 13038 gas forming admixture**
admixture (01) used in the formation of aerated concrete
- 09 13039 strength accelerating admixture**
admixture (01) that increases the rate at which early **strength** (11 27007) is developed
- 09 13040 antifreezing admixture**
admixture (01) that lowers the freezing point of the liquid phase
- 09 13041 bonding admixture**
admixture (01) that improves **bond strength** (09 37006)
- 09 13042 colouring admixture**
admixture (01) that changes the **colour** (11 27079) of the mixture

- 09 13043 corrosion inhibiting admixture**
admixture (01) that reduces the risk of corrosion of embedded metal
- 09 13044 expansion producing admixture**
admixture (01) that reacts to produce a controlled expansion in the mixture
- 09 13045 air entraining admixture**
admixture (01) used in formation of air entrained concrete

3.2 Properties (09 17xxx)

- 09 17001 pozzolanicity**
ability of a **material** (01) to combine with calcium hydroxide at ambient temperatures and in the presence of water in order to produce compounds having the **properties** (01) of a **cement** (BS EN 206-1)
- 09 17002 consistence**
degree of firmness with which the particles of a material cohere

4 Aggregate (09 2xxxx)

4.1 Materials (09 23xxx)

- 09 23001 blended aggregate**
blend of **natural aggregates** (BS EN 13055-1), **manufactured aggregates** (BS EN 13055-1), **by-product aggregates** (BS EN 13055-1), or a combination of these types of **aggregate** (01)
- 09 23002 graded aggregate**
aggregate (01) that has a specified range of proportions by **mass** (11 27001) of a number of different **aggregate sizes** (BS EN 12620)
- 09 23003 single-sized aggregate**
aggregate (01) that is deemed to be of the same **aggregate size** (BS EN 12620); the major proportion of the particles pass the same sieve and do not pass the next sieve in the series
- 09 23004 continuously-graded aggregate**
graded aggregate (09 23002) in which all **aggregate sizes** (BS EN 12620) within a specified range are represented
- 09 23005 gap-graded aggregate**
graded aggregate (09 23002) in which one or more intermediate **aggregate sizes** (BS EN 12620) are not represented
- 09 23006 rounded aggregate**
coarse aggregate (BS EN 12620) that consists of particles with rounded surfaces
- 09 23007 irregular aggregate**
coarse aggregate (BS EN 12620) that consists of particles of irregular **shape** (11 27004) and round edges

- 09 23008 angular aggregate**
coarse aggregate (BS EN 12620) that consists of particles with sharp edges
- 09 23009 cubical aggregate**
coarse aggregate (BS EN 12620) that consists of particles with three substantially equal **dimensions** (01)
- 09 23010 flaky aggregate**
coarse aggregate (BS EN 12620) consisting of particles with a **thickness** (01) that is small in relation to the other two **dimensions** (01)
- 09 23011 elongated aggregate**
coarse aggregate (BS EN 12620) consisting of particles that have one **dimension** (01) significantly larger than the other two
- 09 23012 crushed rock**
coarse aggregate (BS EN 12620) produced by crushing **rock** (03 23027)
- 09 23013 uncrushed gravel**
coarse aggregate (BS EN 12620) obtained from **gravel** (03 23029) without crushing
- 09 23014 crushed gravel**
coarse aggregate (BS EN 12620) produced from **gravel** (03 23029) by processes that include crushing
- 09 23015 crusher-run aggregate**
crushed rock (09 23012) that has not been subjected to any **screening** (01) after the initial mechanical crushing
- 09 23016 blastfurnace slag aggregate**
aggregate (01) from **blastfurnace slag** (09 13012)
- 09 23017 cenosphere**
light-weight aggregate (BS EN 206-1) in the form of hollow glass spheres
NOTE Found in some pulverized-fuel ashes (09 13015).
- 09 23018 expanded aggregate**
light-weight aggregate (BS EN 206-1) produced by heating materials, causing them to entrap air and expand; the initial volume is exceeded significantly by the final volume
- 09 23019 pelletized expanded blastfurnace slag**
expanded aggregate (09 23018) produced in pellet form from **blastfurnace slag** (09 13012)
- 09 23020 expanded clay aggregate**
expanded aggregate (09 23018) produced from **clay** (BS EN 12670)
- 09 23021 expanded plastics particle aggregate**
expanded aggregate (09 23018) that consists of plastics particles

- 09 23022 expanded plastics bead aggregate**
expanded plastics particle aggregate (09 23021) in bead form
- 09 23023 exfoliated vermiculite aggregate**
expanded aggregate (09 23018) produced from vermiculite
- 09 23024 foamed aggregate**
expanded aggregate (09 23018) produced by entraining gases into the heat-treated material (01)
- 09 23025 furnace bottom ash**
ash (05 39007) from the bottom of a furnace used as a constituent of aggregate (01)
- 09 23026 sintered aggregate**
light-weight aggregate (BS EN 206-1) produced by heating metal powders or powdery ores causing them to cohere
- 09 23027 wood particle aggregate**
aggregate (01) from treated and graded wood (01) chips (BS EN 844-12)

4.2 Activities (09 24xxx)

- 09 24001 field settling test**
test (11 14010) to determine the approximate percentage of silt (03 23028) in an aggregate (01) sample (01)
- 09 24002 decantation test**
silt test
test (11 14010) to determine the amount of silt (03 23028) in an aggregate (01), by washing the aggregate (01) over an appropriate sieve
- 09 24003 colour test**
approximate method of indicating the amount of organic compounds present in fine aggregate (01)

4.3 Plant, equipment and documentation (09 26xxx)

- 09 26001 riffle box**
box with partitions for division of a bulk sample (01)
- 09 26002 rotary screen**
revolving cylinder of perforated metal, that has its axis inclined at a slight angle to the horizontal, used for screening (01) aggregate (01)

4.4 Properties (09 27xxx)

- 09 27001 fineness modulus**
sum of the accumulative percentage of a sample (01) of aggregate (01) retained on each sieve of a particular series of sieves, the total being divided by 100

- 09 27002 elongation index**
number representing the proportion of the particles in a **sample** (01) of **coarse aggregate** (BS EN 12620) that have one **dimension** (01) significantly larger than the other two
- 09 27003 flakiness index**
number representing the proportion of the particles of **coarse aggregate** (BS EN 12620) with a **thickness** (01) that is small in relation to the other two **dimensions** (01)
- 09 27004 10% fines value**
measure (01) of resistance of an **aggregate** (01) to crushing determined by identifying the **force** (01) required to produce 10% of **fine aggregate** (01)
- 09 27005 aggregate impact value**
measure (01) of resistance of an **aggregate** (01) to sudden shock or impact
- 09 27006 aggregate soundness value**
measure (01) of the **durability** (01) of an **aggregate** (01) in an aggressive **environment** (01) based on laboratory **tests** (11 14010)
- 09 27007 aggregate shrinkage**
amount by which a saturated standard **concrete** (01) prism made with an **aggregate** (01), shrinks on oven drying, expressed as a percentage of the dry **length** (01)
- 09 27008 pessimum moisture content**
moisture content (11 27033) of a **soil** (01) or granular **material** (01) that when **compacted** (04 24008) under specified conditions will produce the smallest **dry density** (BS EN ISO 12570)
- 09 27009 water absorption value**
ratio of the **mass** (11 27001) of water held within the particles of an **aggregate** (01) to the **mass** (11 27001) of dry **aggregate** (01), expressed as a percentage
- 09 27010 saturated surface-dry characteristic** (01) of **aggregate** (01) that has **voids** (03 28003) in the particles filled with water and surfaces of particles dry to the touch
- 09 27011 aggregate saturation characteristic** (01) of **aggregate** (01) that has all the air in the **voids** (03 28003) within and between particles displaced by water
- 09 27012 absorbed moisture**
moisture absorbed within the particles of a granular **material** (01)
- 09 27013 total moisture**
sum of **free moisture** (BS 4261) and **absorbed moisture** (09 27012)
- 09 27014 shell content**
proportion of shells contained in an **aggregate** (01)

5 Concrete (09 3xxxx)

5.1 Parts (09 32xxx)

- 09 32001 cellular raft**
raft **foundation** (01) in which the intersecting **beams** (01) or **walls** (01) form compartments
- 09 32002 column strip**
portion of a **flat slab** (01) **panel** (03 12004), of total **width** (01) usually half the **panel** (03 12004) **width** (01), that extends over and between the **column heads** (03 12038)
- 09 32003 drop**
extra thick part of a **concrete slab** (01) in the region of a **column** (01)
- 09 32004 middle strip**
portion of **flat slab** (01), usually half the **panel** (03 12004) **width** (01) wide, located symmetrically about the centre line of the **panel** (03 12004) and extending throughout the **length** (01) of the **panel** (03 12004) in the direction for which bending effects are being considered
- 09 32005 L-beam**
concrete (01) **beam** (01) with a cross-section in the form of an L or inverted L
- 09 32006 haunch**
increase in **depth** (01) of a **beam** (01) or **concrete slab** (01) near the support, to increase its **strength** (11 27007)
- 09 32007 dummy joint**
purpose-made partial **joint** (01) for **crack control** (09 34018)
cf. **dummy joint** (09 32008)
- 09 32008 dummy joint**
surface feature for visual purposes to give the appearance of a **joint** (01)
cf. **dummy joint** (09 32007)
- 09 32009 rendering substrate**
structure (01) to which the first **coat** (01) of **render** (01) is applied
- 09 32010 water stop**
jointing section (01), usually a narrow **elastomer** (BS EN 923), that is cast into **concrete** (01) on both sides of a **joint** (01) to prevent water passing through the **joint** (01)
- 09 32011 shrinkage crack**
crack caused by **restrained shrinkage** (09 35003)
- 09 32012 floated finish**
surface of **fresh concrete** (BS EN 206-1) **finished** (01) with a **float** (01)

- 09 32013 power floated finish**
surface of **concrete** (01) **finished** (01) with a **power float** (09 36123); the **concrete** (01) is allowed to reach **initial set** (09 35020) before work starts
- 09 32014 power trowelled finish**
surface of **concrete** (01) **finished** (01) with a **power trowel** (09 36122)
- 09 32015 rubbed finish**
finish (01) to concrete produced by removing surface irregularities with an abrasive
- 09 32016 board marked finish**
finish (01) to **concrete** (01) showing the markings of the boards of the **formwork** (01)
- 09 32017 random board finish**
board marked finish (09 32016) based on boards of random **width** (01) or **length** (01), or both
- 09 32018 rough board finish**
board marked finish (09 32016) based on **rough** (11 27053) boards
- 09 32019 exposed aggregate finish**
finish (01) to **concrete** (01) achieved by exposing the **coarse aggregate** (BS EN 12620)
- 09 32020 Tyrolean finish**
machine-applied rough **finish** (01) on **rendering** (BS EN 13914-1)
- 09 32021 dry dash**
pebble-dash
finish (01) in which selected **aggregate** (01) is thrown onto a freshly-applied **rendering** (BS EN 13914-1) and left exposed
- 09 32022 bell cast**
shaped lower edge of a **rendering** (BS EN 13914-1) to shed **rain water** (BS ISO 6107-1)
- 09 32023 concrete fin**
undesirable projection from the face of **concrete** (01) caused by **cement paste** (09 33042) escaping into a gap in **formwork** (01) at a **joint** (01)

5.2 Materials (09 33xxx)

- 09 33001 durable concrete**
concrete (01) that will fulfil its purpose, in the **environment** (01) for which it is designed, for a required **service life** (01), when subject to planned **maintenance** (01)
- 09 33002 fair faced concrete**
concrete (01) that possesses a surface substantially free of physical **defects** (01) and wide variations in **colour** (11 27079)
- 09 33003 flowing concrete**
high consistence concrete (09 33005) that flows into position

- 09 33004 green concrete**
hardened concrete (BS EN 206-1) that has gained only a small proportion of its final **strength** (11 27007)
- 09 33005 high consistence concrete**
fresh concrete (BS EN 206-1) that can be placed with little compactive effort
- 09 33006 insulating concrete**
light-weight concrete (BS EN 206-1) that has an air **dry density** (BS EN ISO 12570) not exceeding 2 000 kg/m³
- 09 33007 no slump concrete**
fresh concrete (BS EN 206-1) that has a concrete slump value of zero
- 09 33008 plasticized concrete**
fresh concrete (BS EN 206-1) that contains an **admixture** (01) that increases **consistence** (09 17002) for a given water/**binder** (01) ratio or maintains **consistence** (09 17002) at a lower water/binder ratio
- 09 33009 pumpable concrete**
fresh concrete (BS EN 206-1) that can be transported through a **pipeline** (01) using a **pump** (01)
- 09 33010 refractory concrete**
concrete (01) that can withstand high temperatures; it is made with **calcium aluminate cement** (09 13007) and refractory **aggregate** (01)
- 09 33011 retarded concrete**
fresh concrete (BS EN 206-1) that changes to a hardened state more slowly as a result of the use of a **set retarding admixture** (BS EN 934-2)
- 09 33012 stiffened concrete**
concrete (01) that has lost its **consistence** (09 17002) to the extent that it is no longer readily mouldable
- 09 33013 structural concrete**
concrete (01) that can carry imposed **loads** (01)
- 09 33014 water resisting concrete**
concrete (01) that has high resistance to water penetration
- 09 33015 aerated concrete**
light-weight concrete (BS EN 206-1) that contains uniformly distributed **voids** (03 28003) preformed in a foam by means of an **admixture** (01)
- 09 33016 air entrained concrete**
concrete (01) in which an **admixture** (01) is used to incorporate a quantity of small, uniformly distributed, air bubbles during mixing, and these remain after hardening
- 09 33017 colloidal concrete**
concrete (01) in which the **aggregate** (01) is bound by **colloidal grout** (09 33044)