

BRITISH STANDARD

**BS 6100 :
Subsection
6.6.1 : 1991**

Glossary of

Building and civil engineering terms

Part 6. Concrete and plaster

Section 6.6 Products, applications and operations

Subsection 6.6.1 Concrete and mortar

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Foreword

This Subsection of Part 6 of BS 6100, which has been prepared under the direction of the Basic Data and Performance Criteria for Civil Engineering and Building Structures Standards Policy Committee, should be read in conjunction with BS 6100 : Section 6.1.

A general introduction to and explanation of this glossary is given in Part 0 of BS 6100, which itemizes the Parts, Sections and Subsections into which this glossary is divided and provides a general alphabetical index of all the terms in the Sections and Subsections already published. Those using individual Sections and Subsections of this glossary are urged to consult Part 0 when doing so.

The other Sections of this Part are as follows:

- 6.1 Binders
- 6.2 Concrete
- 6.3 Aggregates
- 6.4 Admixtures
- 6.5 Formwork

The other Subsection of this Section is as follows:

6.6.2 Plaster

Terms are listed alphabetically in the index and are referred to by numbers which are found against the term in the body of the Subsection. They are arranged in a classified order, each term having an individual number consisting of seven digits in two parts, the first of three digits, the second of four. The first three digits represent the number of the Part, Section and Subsection. The fourth digit represents the group of terms, the fifth digit represents the subgroup of terms, and the last two digits represent the place within the subgroup.

Alternative terms are given in medium type below the preferred terms with their status indicated, e.g. 'deprecated'. These terms are not individually numbered but are included in the index with a reference to the preferred term. Terms of more than one word e.g. 'accelerated set', are written in a direct style, not as 'set, accelerated'. The inverted term is included in the index with reference to the direct term.

Italicized words indicate terms that are defined elsewhere in this Subsection.

NOTE. The titles of the publications referred to in this standard are listed on the inside back page.

Compliance with a British Standard does not in itself confer immunity from legal obligations.

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No.	Term	Definition
661 1 Base terms		
661 1001	concrete batch	Quantity of concrete mixed in one cycle of operations of a <i>batch mixer</i> , or the quantity of concrete conveyed ready-mixed in a vehicle or the quantity discharged during a stated period from a <i>continuous mixer</i> .
661 1002	reinforcing bar	Steel bar, usually of circular cross section, that forms an element of reinforcement.
661 1003	concrete cover	Distance between concrete surface and surface of reinforcement or duct of <i>prestressing tendons</i> .
661 1004	concrete bond	Transfer of force between concrete and reinforcement at their interface.
661 2 Materials, products and elements		
661 21 Materials		
661 2101	designed mix	Concrete mix for which the purchaser is responsible for specifying the required performance and the producer is responsible for selecting the mix proportions to produce it.
661 2102	prescribed mix	Concrete mix for which the purchaser is responsible for specifying the proportions of the constituents and for ensuring that the proportions prescribed will produce a concrete with the performance required.
661 2103	dry mix	Concrete mix that has a very low <i>water content of concrete</i> .
661 2104	mortar	Mixture of binder, fine aggregate and water, that hardens.
661 2105	cement paste	Mixture of hydraulic binder and water.
661 2106	grout grouting mortar <i>deprecated</i>	Fluid <i>mortar</i> or <i>cement paste</i> , used for filling fissures and cavities.
661 2107	neat cement grout	<i>Grout</i> that consists of <i>cement paste</i> .
661 2108	colloidal grout	<i>Grout</i> that has artificially induced cohesiveness so that the binder remains in suspension.
661 2109	slurry	Mixture of fine solids suspended in a liquid and having the general flow properties of a liquid.
661 2110	asbestos cement	<i>Cement paste</i> reinforced with asbestos fibres.
661 2111	fibre reinforced cement	Binder paste reinforced by dispersed or organized fibres, that hardens.
661 2112	plum	Large stone embedded in concrete.

No.	Term	Definition
661 2113	separating layer	Layer of material to prevent adhesion between a hardened and a freshly placed material such as a subfloor and screed.
661 2114	bonding layer	Layer of <i>mortar</i> or other material spread on hardened concrete prior to placing fresh concrete on it so that the fresh and hardened concrete behave monolithically.
661 2115	butter coat	Soft final <i>render</i> coat to which <i>dry dash</i> is applied.
661 2116	spatterdash	Mix of hydraulic binder and coarse sand, prepared as a thick <i>slurry</i> , thrown on as an initial coating to provide a key to backgrounds having poor suction or to reduce or even out suction of other types of background.
661 2117	concrete casing	Concrete protective covering to structural steel.
661 2118	curing compound	Material applied to the surface of green concrete to diminish evaporation.
661 2119	Leighton Buzzard sand	Sand that complies with a specified grading and is used for the testing of cement, obtained from the Woburn sands of the Lower Greensand in the Leighton Buzzard area.
661 2120	specimen	Representative single item or measured quantity of material.
661 22 Products		
661 2201	cast stone	Precast concrete in which the finished surface resembles that of natural stone.
661 2202	edge panel	<i>Panel</i> that has at least one <i>free edge of concrete</i> .
661 2203	flag flagstone <i>deprecated</i>	Small slab of natural or artificial stone or precast concrete.
661 2204	standard concrete cube	Moulded cubical <i>specimen</i> of concrete of the size specified in the relevant standard. NOTE. A relevant standard is BS 1881 : Part 108.
661 2205	standard concrete cylinder	Moulded cylindrical <i>specimen</i> of concrete of the size specified in the relevant standard. NOTE. A relevant standard is BS 1881 : Part 110.
661 23 Elements		
661 2301	panel	Distinct portion of a floor, roof slab or wall usually surrounded by a frame or other panels.
661 2302	cellular raft	Raft foundation in which intersecting beams or walls form cells.
661 2303	monolithic screed	Screed laid immediately following, or within a short time of, laying the floor base, and bonding to it.

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No.	Term	Definition
661 2304	core of helically reinforced column	Portion of the concrete enclosed within a cylindrical surface containing the centreline of the <i>helical reinforcement</i> .
661 2305	column head	Enlargement at the top of a column that supports a flat slab.
661 2306	column strip	Portion of a flat slab <i>panel</i> of total width usually one-half the <i>panel</i> width, extending over <i>column heads</i> .
661 2307	effective width of slab	Width of slab assumed for design purposes.
661 2308	drop	Thickening of a concrete slab in the region of a column.
661 2309	coffered slab	Concrete slab designed to span in two directions and containing recesses on its underside.
661 2310	waffle slab	<i>Coffered slab</i> in which the recesses are square on plan.
661 2311	middle strip	Portion of flat slab, of width usually half the <i>panel</i> width, located symmetrically about the centreline of the <i>panel</i> and extending throughout the entire length of the <i>panel</i> in the direction for which bending moments are being considered.
661 2312	L-beam	Beam with a section in the form of an L or inverted L.
661 2313	flange	Horizontal portion of an I-beam, <i>L-beam</i> or T-beam.
661 2314	haunching	Tapering increase in depth of concrete beam or slab near the support, to increase its strength.
661 2315	key	Roughness that assists in the bonding of two surfaces by providing a degree of physical interlock.
661 2316	dummy joint (1)	Purpose-made partial joint for <i>crack control</i> .
661 2317	dummy joint (2)	Surface feature for visual purposes to give the appearance of a joint.
661 2318	hearting concrete	Concrete that forms the central core of a large structure, such as a dam, and that is of lower quality than that on the faces.
661 2319	facing concrete	Concrete of higher quality than <i>hearting concrete</i> placed outside it and poured so as to be monolithic with it.
661 2320	integral facing face mix <i>deprecated</i>	Concrete or <i>mortar</i> facing of a different quality from the main body of concrete, cast so as to be monolithic with it.
661 2321	backing concrete	Concrete that gives support to an <i>integral facing</i> .
661 2322	concrete bay	Area of concrete bounded by joints or <i>free edges of concrete</i> .
661 2323	free edge of concrete	Edge of an area of concrete that is not in contact with the edge of another slab.
661 2324	rendering background	Structure to which the first coat of <i>render</i> is applied.

No.	Term	Definition
661 2325	water stop	Jointing section, usually in the form of a profiled strip of elastomeric material, that is cast into concrete on either side of a joint to prevent water passing through the joint.

661 3 Properties, behaviour and conditions

661 31 Properties

661 3101	cube strength	Compressive strength of a <i>standard concrete cube</i> , obtained in accordance with the relevant standard. NOTE. A relevant standard is BS 1881 : Part 116.
661 3102	characteristic cube strength	Value of <i>cube strength</i> at 28 days after casting, below which 5 % of the population of all possible measurements are expected to fall.
661 3103	estimated in situ cube strength	Strength of concrete at a location in a structural member estimated by indirect means and expressed in terms of <i>cube strength</i> .
661 3104	cylinder strength	Compressive strength of a <i>standard concrete cylinder</i> .
661 3105	core strength	Compressive strength of a concrete core sample, obtained in accordance with the relevant standard. NOTE. A relevant standard is BS 1881 : Part 120.
661 3106	tensile splitting strength indirect tensile strength <i>deprecated</i>	Tensile strength determined indirectly by splitting a cylindrical, cubical or prismatic test <i>specimen</i> .
661 3107	bond strength	<i>Bond stress</i> at the instant before failure of <i>concrete bond</i> .
661 3108	bond stress	Stress at the interface between concrete and reinforcement created by <i>concrete bond</i> .
661 3109	initial stress	Stress imposed in the concrete or steel of a prestressed member when it is first fully stressed, and before creep or plastic yield occurs.
661 3110	local bond stress	<i>Bond stress</i> at a particular point on reinforcement.
661 3111	average bond stress	Force in a <i>reinforcing bar</i> divided by the product of its perimeter and its embedded length.
661 3112	water/cement ratio	Ratio of mass of water to binder in concrete, <i>mortar</i> or <i>grout</i> .
661 3113	cement/water ratio	Reciprocal of <i>water/cement ratio</i> .
661 3114	total water/cement ratio	<i>Water/cement ratio</i> in which the mass of water is the total mass of water in the concrete or mortar including the water absorbed by the aggregate.

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No.	Term	Definition
661 3115	free water/cement ratio	<i>Water/cement ratio</i> in which the mass of water is the total mass of water in the concrete or mortar less the water absorbed by the aggregate.
661 3116	aggregate/cement ratio	Ratio of mass of aggregate to mass of hydraulic binder in concrete or mortar.
661 3117	air void air pocket <i>deprecated</i>	Cavity in hardened concrete formed by <i>entrained air</i> or <i>entrapped air</i> .
661 3118	voids ratio	Ratio of the volume of voids in a material to the combined volume of the material and voids.
661 3119	grade of concrete	Number that is the specified <i>characteristic cube strength</i> in newtons per square millimetre.
661 3120	nominal concrete mix proportions	Proportions of dry materials in a concrete mix expressed in volumetric terms.
661 3121	water content of concrete	Mass of water in unit volume of concrete.
661 3122	concrete consistence	Ability of fresh concrete, <i>cement paste</i> or <i>mortar</i> to resist forces that could cause changes of shape.
661 3123	air content of concrete	Ratio of total volume of air to unit volume of concrete, usually expressed as a percentage.
661 3124	entrained air	Air purposely incorporated into concrete by the use of air entraining admixture.
661 3125	entrapped air	Unwanted air that remains in concrete after <i>compacting</i> .
661 3126	cement content	Mass of binder contained in unit volume of fresh, fully compacted concrete.
661 3127	yield of concrete	Volume of compacted fresh concrete produced by given mix masses or volumes.
661 3128	nailable concrete	Concrete into which nails may be driven using a hand tool.
661 3129	set	Measure of the stiffening of a cement/water mix on hydration.
661 3130	water void	Space in hardened concrete occupied or formed by surplus water.
661 3131	harsh concrete mix	Concrete mix that is difficult to place and work.
661 3132	compacting factor	Measure of the workability of concrete expressed as the ratio of the mass of concrete that fills a container of standard size and shape when allowed to fall into it under standard conditions of test to the mass of fully compacted concrete that fills the same container.

No.	Term	Definition
661 3133	concrete slump	Vertical distance through which the top of a moulded sample of fresh concrete sinks on removal of the mould, under standard conditions of test.
661 32 Behaviour		
661 3201	accelerated set	Increase in rate of stiffening of a mix.
661 3202	retarded set	Decrease in rate of stiffening of a mix.
661 3203	flash set	Stiffening of a mix that occurs very quickly after mixing with water.
661 3204	concrete segregation	Separation of the constituents of fresh concrete, usually during transport, <i>placing</i> or <i>compacting</i> .
661 3205	bleeding	Segregation of water from fresh concrete.
661 3206	laitance	<i>Cement paste</i> that rises to the top surface of concrete on <i>compacting</i> or that is brought to the surface during finishing.
661 3207	crazing map cracking <i>deprecated</i>	Cracking of a surface layer into small irregularly shaped contiguous areas.
661 3208	aggregate bridging	Interlocking of coarse aggregate particles at formwork faces that sometimes causes isolated pits in the concrete surface.
661 3209	drying shrinkage	Contraction of hardened concrete or <i>mortar</i> caused by evaporation of water from its mass.
661 3210	water of hydration	Water combined chemically with a hydraulic binder.
661 3211	moisture movement	Contraction or expansion caused by loss or gain of moisture by concrete or <i>mortar</i> .
661 3212	carbonation	Chemical reaction that occurs between the calcium hydroxide or <i>mortar</i> in concrete and atmospheric carbon dioxide.
661 3213	sulphate attack	Deterioration of concrete caused by sulphate salts in solution.
661 3214	alkali-aggregate reaction	Reaction between alkalis, usually from binder, and certain aggregates.
661 3215	alkali-carbonate reaction	<i>Alkali-aggregate reaction</i> in which the reactive aggregate consists of certain forms of dolomitic limestone.
661 3216	alkali-silica reaction	<i>Alkali-aggregate reaction</i> in which the contributing component in the aggregate is a reactive form of silica.
661 3217	alkali-silicate reaction	<i>Alkali-aggregate reaction</i> in which the contributing component in the aggregate is a reactive phyllosilicate.
661 3218	transfer	Action of transferring force in a <i>prestressing tendon</i> to concrete.