

Glossary of

Building and civil engineering terms

Part 2. Civil engineering

Section 2.1 Structural design and elements

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Committees responsible for this British Standard

The preparation of this British Standard was entrusted to Technical Committee B/500, Basic data, upon which the following bodies were represented:

- Building Employers' Confederation
- Consumer Policy Committee of BSI
- Convention of Scottish Local Authorities
- Department of Education and Science
- Department of the Environment
- Incorporated Association of Architects and Surveyors
- Meteorological Office
- National Building Specification Ltd.
- National Council of Building Material Producers
- National House-building Council
- Royal Institute of British Architects
- Society of Chief Architects of Local Authorities

The following bodies were also represented in the drafting of the standard, through subcommittee B/500/4, Terminology:

- Association of Builders Hardware Manufacturers
- Brick Development Association
- British Cement Association
- British Waterways Board
- Chartered Institution of Building Services Engineers
- Clay Pipe Development Association Limited
- Department of the Environment (Property Services Agency)
- Department of Transport
- Federation of Civil Engineering Contractors
- Federation of Plastering and Drywall Contractors
- Glass and Glazing Federation
- Guild of Architectural Ironmongers
- Gypsum Products Development Association
- Institution of Civil Engineers
- Royal Institution of Chartered Surveyors
- Timber Trade Federation

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Summary of pages

The following table identifies the current issue of each page. Issue 1 indicates that a page has been introduced for the first time by amendment. Subsequent issue numbers indicate an updated page. Vertical sidelining on replacement pages indicates the most recent changes (amendment, addition, deletion).

Page	Issue	Page	Issue
Front cover	2	7	2
Inside front cover	2	8	2
a	1	9	2
b	blank	10	2
i	2	11	2
ii	2	12	2
1	2	13	2
2	2	14	2
3	2	Inside back cover	2
4	2	Back cover	2
5	2		
6	2		

Contents

	Page
Committee responsible	Inside front cover
Foreword	ii
Glossary	
210 1 Actions and loadings	1
210 11 Actions	1
210 12 Loads	1
210 13 Forces	1
210 2 Behaviour and attributes	2
210 21 Movements	2
210 22 Conditions	2
210 3 Materials	2
210 31 Reinforcements	2
210 4 Design	3
210 41 Stresses	3
210 42 Strengths	3
210 43 Design assumptions	3
210 44 Design conventions	4
210 5 Structural members	5
210 50 General	5
210 51 Slabs	7
210 52 Beams	7
210 53 Roof and ceiling components	8
210 54 Struts	9
210 55 Ties	9
210 56 Columns, piers	9
210 57 Spans	10
210 6 Assemblies	10
210 61 Masonry	10
210 62 Walls	10
210 63 Frames and framing	11
210 64 Trusses	11
210 7 Joints and jointing products	12
210 71 Joints	12
210 72 Jointing products	13
210 8 Activities	13
210 81 Stressing	13
210 82 Supporting	13
Index	14

Foreword

This Section of Part 2 of BS 6100 has been prepared by Technical Committee B/500, Basic data, and takes account of work being carried on by Technical Committee TC 98 of the International Organization for Standardization (ISO). This Section supersedes BS 6100 : Section 2.1 : 1984, which is withdrawn.

This edition introduces technical changes but it does not reflect a full review or revision of the standard, which will be undertaken in due course.

The introduction of 'actions' into the theory of structural design has been noted and it is hoped that the three definitions proposed here will be of use in clarifying this concept and enabling agreement to be reached on the definitions, both nationally and internationally.

A general introduction to and explanation of this glossary is given in Part 0 of this standard 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:

- 2.2 Sub-structures. Earthworks. Foundations. Tunnels*
- 2.3 Superstructures. Bridges. Large span structures*
- 2.4 Highway, railway and airport engineering*
- 2.5 Water engineering*
- 2.6 Natural waters. Inland. Coastal. Marine*
- 2.7 Public health. Environmental engineering*
- 2.8 Pipelines. Ducts*

Terms are listed alphabetically in the index and are referred to by numbers which are found against the term in the body of the Section. There 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 (in this case, the third digit is 0 as there is no division into Subsections). The fourth digit represents the groups 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 below the preferred term 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. 'punching shear', are written in a direct style, not as 'shear, punching'. The inverted term is included in the index with a reference to the direct term.

It is to be noted that, while this Section deals with the more basic terms connected with civil engineering, many of the terms relating to more specific aspects will occur only in the other, relevant Sections.

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

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.

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

No.	Term	Definition
210 1	Actions and loadings	
210 11	Actions	
210 1101	action	<i>Force</i> or cause of <i>deformation</i> .
210 1102	direct action	One or more <i>forces</i> acting on a structure or a <i>structural member</i> .
210 1103	indirect action	Cause, other than a <i>direct action</i> , of <i>deformation</i> of a structure or a member. NOTE. An example of an indirect action is thermal effect.
210 1104	reaction	Response or resistance to an <i>action</i> .
210 12	Loads	
210 1201	load	<i>Force</i> that acts on a structure or a member.
210 1202	characteristic load	<i>Load</i> that, when acting unfavourably, has a low prescribed probability of being exceeded and, when acting favourably, has a high prescribed probability of being exceeded.
210 1203	dead load	<i>Load</i> of constant magnitude and position that acts permanently, including <i>self weight</i> .
210 1204	self weight	Part of a <i>dead load</i> generated by the mass of the <i>structural member</i> being considered.
210 1205	imposed load live load <i>deprecated</i>	<i>Load</i> on a structure or member, other than <i>wind load</i> , produced by the external environment and intended occupancy or use.
210 1206	dynamic load	Part of an <i>imposed load</i> resulting from motion.
210 1207	impact load	<i>Imposed load</i> whose effect is increased due to its sudden application.
210 1208	wind load	<i>Load</i> due to wind.
210 13	Forces	
210 1301	force	Measurable influence that tends to cause a body to move, such as the influence of gravity on its mass, or the reactive influence that combats such movement.
210 1302	compression	State in part of a member subject to <i>forces</i> that shorten it.
210 1303	tension	State in part of a member subject to <i>forces</i> that extend it.
210 1304	stress	<i>Force</i> per unit area.
210 1305	strain	Ratio of <i>deformation</i> to original dimension.
210 1306	shear	State in part of a member subject to equal and opposite parallel <i>forces</i> that tend to displace, or produce relative sliding of, adjacent planes.