

Glossary of

Terms relating to timber preservation

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- British Telecommunications
- British Wood Preserving Association
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Foreword

This British Standard has been prepared under the direction of the Wood Preservation Standards Committee. It includes over 40 more terms than those defined in BS 4261:1968, which is withdrawn.

This British Standard provides definitions of terms which are in frequent use in the technology and practice of timber preservation, with particular reference to the UK. It may be regarded as an extension of BS 6100 *“Glossary of building and civil engineering terms”* Section 4.1 *“Characteristics and properties of timber and wood based panel products”* and duplication has been avoided as far as possible by including only such terms relating to the characteristics of wood and timber, as necessarily fall within the scope of the present standard. Reference should therefore be made to BS 6100-4.1 for other terms. Where duplication is unavoidable, care has been taken to ensure that definitions in this standard are the same as, or consistent with, those in BS 6100-4.1.

Terms are listed alphabetically in the index and are referred to by numbers which are found against the term in the body of the glossary. There they are arranged in alphabetical order within each section, each term having an individual number consisting of three digits. The first digit represents the number of the section and the second and third digits represent the place within the section.

Synonyms and alternative terms are given below the preferred term with their status indicated, if appropriate, e.g. “deprecated”, “non-preferred”. These terms are not individually numbered, but are included in the index with a reference to the number of the preferred term.

Latin terms are printed in italics and are included in the index with a reference to the term itself, or to the term whose definition contains the latin words. Other italicized words indicate terms that are defined elsewhere in the glossary.

Definitions of wood-destroying organisms are given against their latin names and not against their common names. However, the common names are included in the index with a reference to the appropriate latin term.

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Summary of pages

This document comprises a front cover, an inside front cover, pages i and ii, pages 1 to 19 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.

Section 1. General

No.	Term	Definition
101	annual ring	<i>Growth ring</i> corresponding to an annual period of growth.
102	air-dried timber	<i>Timber</i> that has been subjected to <i>air-drying</i> . NOTE See <i>drying</i> (422).
103	air-dry timber	<i>Timber</i> that has a <i>moisture content</i> which is in approximate equilibrium with surrounding atmospheric conditions. NOTE In the UK the <i>moisture content</i> of air-dry <i>timber</i> may range between 17 % and 23 % according to the season of the year and the species of <i>timber</i> concerned.
104	biodeterioration	Undesirable break-down or spoilage caused by biological agencies.
105	bound moisture	Moisture that is intimately associated with the cell wall by molecular sorption.
106	bright timber	<i>Timber</i> that is free from discolorations.
107	brittleheart	<i>Wood</i> that is abnormally brittle caused by compression failure in the fibres arising during growth, usually associated with certain tropical light <i>hardwoods</i> and mostly located in the centre portion of the tree.
108	casehardening	Condition existing in <i>timber</i> in which the outer layers have undergone some <i>drying</i> and become set without corresponding shrinkage, causing stress between the inner and outer layers. NOTE See <i>surface hardening</i> (475).
109	check	Separation of the fibres along the grain forming a crack or fissure that does not extend through the <i>timber</i> or veneer from one surface to the other.
110	close-piling	Process of stacking <i>timber</i> without air spaces between the edges and the faces of the pieces.
111	conversion	Process of sawing logs into <i>timber</i> .
112	dressed timber surfaced timber	<i>Timber</i> made smooth on one or more surfaces.
113	early wood spring wood <i>deprecated</i>	Less dense <i>wood</i> formed during the earlier stages of the growth of each <i>growth ring</i> .
114	fibre-saturation point	Hypothetical <i>moisture content</i> at which all <i>free moisture</i> has been removed but at which the cell walls are still saturated. NOTE This point cannot be precisely determined, but for practical purposes it can be taken as about 30 % <i>moisture content</i> .
115	free moisture free water <i>deprecated</i>	Moisture that is contained in the cell cavities and intercellular spaces and is held by capillary forces only.
116	fungi	Saprophytic and parasitic plants characterized by the absence of chlorophyll and by their mode of nutrition (breakdown of organic matter).
117	green timber	<i>Timber</i> freshly felled or still containing <i>free moisture</i> .
118	growth ring	Layer of <i>wood</i> produced in one growing season.

No.	Term	Definition
119	hardwood	<i>Timber</i>, whether hard or not, of broadleaved trees belonging to the botanical group <i>Angiosperms</i>. NOTE 1 <i>Hardwoods</i> have vessels which differentiate them from conifers or other <i>softwood</i> trees and their <i>timber</i>; the physical hardness or softness in either case is not a factor. The term <i>hardwood</i> should not be construed as indicating high natural durability. NOTE 2 In countries where coniferous species are of little commercial significance the terms <i>hardwoods</i> and <i>softwoods</i> are commonly used in their literal significance.
120	heartwood	Inner zone of <i>wood</i> that, in a growing tree, has ceased to contain living cells and reserve materials, e.g. starch, not to be confused with “heart”. NOTE 1 In commercial practice it is usual to restrict the term <i>heartwood</i> to the darker-coloured wood that is visually distinct from the <i>sapwood</i>. NOTE 2 The term is sometimes abbreviated to “heart”. This abbreviation is deprecated as the term “heart” is used in a special sense to denote the portion of a log that includes the pith and the associated defective wood.
121	infection	Invasion of <i>timber</i> by <i>fungi</i> or other micro-organisms.
122	infestation	Establishment of <i>insect</i> or other animal organisms in <i>timber</i> .
123	insect	Class of <i>Arthropoda</i> having the body divided in the adult stage into three distinct parts; head, thorax and abdomen, and bearing three pairs of legs on the thorax and a pair of antennae on the head. Most adult <i>insects</i> have wings.
124	juvenile wood	A few <i>growth rings</i> of woody tissue nearest the centre of the tree often having abnormal properties.
125	late wood summer wood <i>deprecated</i>	Denser <i>wood</i> formed during the later stages of growth of each <i>growth ring</i> .
126	moisture content	Amount of water, bound or free, that is present in <i>timber</i> usually expressed as a percentage of the <i>oven-dry</i> mass.
127	moisture distribution	Varying concentration of moisture throughout a piece of <i>wood</i> , from face to face, but sometimes from end to end or from edge to edge.
128	moisture gradient	Gradation in <i>moisture content</i> within <i>timber</i>, due to evaporation or absorption of moisture. NOTE During <i>drying</i>, the gradations are between the <i>moisture content</i> of the relatively dry surface layers and the wetter layers at the centre of the piece.
129	movement	Swelling and shrinking of dried <i>timber</i> , consequent on changes of <i>moisture content</i> caused by changes in the surrounding atmospheric conditions.
130	oven-dry	<i>Timber</i> that has been dried in a ventilated oven at 103 ± 2 °C until there is no further fall in <i>moisture content</i> .
131	over-absorbent	<i>Timber</i> that has been kept wet for a long period, e.g. by storage in water, before <i>drying</i> , resulting in increased permeability giving enhanced absorption of preservative solution when treated.
132	parasite	Living organism that obtains its nourishment from other living organisms or living tissues, to the detriment of the latter.

No.	Term	Definition
133	ponding water stored	Practice of storing logs in water. NOTE See also <i>over-absorbent</i> (131).
134	reaction wood	Modified woody tissue occurring on the upper side of <i>hardwood</i> trees (tension wood), or the lower side of <i>softwood</i> trees (compression wood) typically present in branches and in leaning trunks of trees. NOTE It has abnormally high longitudinal shrinkage on <i>drying</i> .
135	relative humidity	Ratio, expressed as a percentage, of the actual mass of water vapour contained in a unit volume of air, to the mass of water vapour that would saturate that volume at the same temperature and pressure.
136	rot decay <i>non-preferred</i>	Decomposition of wood by <i>fungi</i> or other micro-organisms resulting in softening, progressive loss of strength and mass, and often a change of texture and colour. NOTE The following terms designating different types of <i>rot</i> are defined in section 2: <i>brown rot</i> ; <i>butt rot</i> ; <i>cubical rot</i> ; <i>dote</i> ; <i>dry rot</i> ; <i>heart rot</i> ; <i>pocket rot</i> ; <i>sap rot</i> ; <i>soft rot</i> ; <i>wet rot</i> ; <i>white rot</i> .
137	saprophyte	Living organism that obtains its nourishment from dead-organic material.
138	sapwood sap <i>deprecated</i>	Outer zone of <i>wood</i> that, in the growing tree, contains living cells and reserve materials, e.g. starch; generally lighter in colour than <i>heartwood</i> though not always clearly differentiated.
139	shipping dry	<i>Timber</i> sufficiently dried to prevent deterioration in transit.
140	softwood	<i>Wood</i> of trees belonging to the botanical group <i>Gymnosperms</i> . NOTE Commercial <i>timbers</i> of this group are practically confined to the class <i>Coniferae</i> (conifers). See also <i>hardwood</i> (120).
141	sound	Free from <i>rot</i> , <i>infection</i> or <i>infestation</i> .
142	split	Surface split in a piece of <i>timber</i> usually caused by shrinkage on <i>drying</i> .
143	stain discoloration <i>non-preferred</i>	Any variation from the natural colour of <i>wood</i> , which may be the result of weathering, of contact with chemicals or metals, or of infection by <i>fungi</i> or moulds, or of other causes.
144	surface-dry	Applied to sawn <i>timber</i> , the surfaces of which are more or less <i>air-dry</i> .
145	timber	<i>Wood</i> in form of standing or felled trees or the product of these after <i>conversion</i> .
146	unseasoned	Green or freshly felled <i>timber</i> that still contains <i>free moisture</i> in its cell cavities.
147	wane	Original rounded surface of a tree remaining, with or without bark, on any face or edge of square-sawn <i>timber</i> .
148	warp(ing)	Distortion of a piece of <i>timber</i> in the process of <i>conversion</i> , <i>drying</i> or storage.

No.	Term	Definition
149	wood	The principal strengthening and water-conducting tissue of stems and roots. NOTE <i>Wood</i> is the lignocellulosic substance of which trees and shrubs are largely composed; woody tissues can also occur in herbaceous plants. See <i>timber</i> (145).
150	wood preservation	Technology of preserving <i>wood</i> from deterioration and destruction by living organisms, by the application of <i>wood preservatives</i>. NOTE The term usually refers to the treatment of wood with chemical substances which reduces its susceptibility to deterioration by <i>fungi</i>, <i>insects</i>, <i>marine borers</i>. Preservative treatments may be divided into the following general categories: a) protective treatment of a temporary nature given to <i>unseasoned timber</i> against attack by <i>insects</i>, sapstaining <i>fungi</i> or both. b) pre-treatment of <i>timber</i> before it is put into use. c) preservative treatment of <i>timber</i> in use but before remedial treatment is necessary. d) the remedial and curative treatment of <i>timber</i> in-situ which has been attacked by <i>fungi</i>, <i>insects</i> or other destructive organisms.
151	wood preservative	A chemical or mixture of chemicals in a form suitable for application to <i>timber</i> for the purpose of usefully prolonging the life of the <i>timber</i> (when it is in conditions that would otherwise be conducive to biodeterioration) by rendering it resistant to attack by wood destroying organisms. NOTE The three main types of wood preservative are <i>tar-oil</i> (TO), <i>water-borne</i> (WB), and <i>organic-solvent</i> (OS) (see section 4).