

SINGAPORE STANDARD

The use of timber in buildings

Formerly CP 1



Published by

Enterprise
Singapore

SS 572 : 2012
(ICS 91.080.20)

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The use of timber in buildings

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ISBN 978-981-4353-26-7

This Singapore Standard was approved by Building and Construction Standards Committee on behalf of the Standards Council of Singapore on 28 March 2012.

First published, 1966

First revision, 1982

Second revision, 2001

Third revision and renumbered as SS 572, 2012

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Housing & Development Board

LHT Holdings Ltd

Singapore Civil Defence Force

Singapore Institute of Architects

Singapore Timber Association

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Foreword

This Singapore Standard was prepared by the Technical Committee on Architectural Works under the direction of the Building and Construction Standards Committee.

This Code deals with the use of timber in the building industry. It is intended primarily to lay down requirements regarding the design, quality of material and its application. It represents a standard of good practice and therefore takes the form of recommendation. Compliance with it does not exonerate user/specifier from relevant legal requirements including by-laws.

The recommendations are such as to enable the maximum economic use of available timber resources. Hence, it recommends the standard sizes and profiles for the most commonly used items of construction together with details of timber species most suitable for various functions. A wide range of tropical timbers which are of commercial interest and generally available is listed in this Code.

Changes made to the 2001 edition include the updating of data on timber species and classifications and the exclusion of strength requirements of various timber species, which can be referred to in CP 7 – ‘Code of practice for structural use of timber’, and the omission of health hazard chemicals as timber preservatives.

Table 1 of this Code was adapted from the following documents published by the Malaysian Timber Industry Board:

- 1) Malaysia Hardwoods’, 4th print 2007.
- 2) Uses of some Malaysian Timbers, Timber Trade Leaflet No. 31 Issue 0123.9254.

Acknowledgement is made for the use of materials from the Malaysian Timber Industry Board.

In revising this Code, references were made to the following publications:

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| 1. | AS 1143 : 1973
(Reconfirmed 1988) | High temperature creosote for the preservation of timber |
| 2. | BS 144 : 1997 | Specification for coal tar creosote for wood preservation |
| 3. | BS 476 : | Fire tests on building materials and structures: |
| | Part 3 : 2004 | Classification and method of test for external fire exposure to roofs |
| | Part 4 : 1970 | Non-combustibility test for materials |
| | Part 6 : 1989 | Method of test for fire propagation for products |
| | Part 7 : 1997 | Method of test to determine the classification of the surface spread of flame of products |
| | Part 10 : 2009 | Guide to the principles, selection, role and application of fire testing and their outputs |
| | Part 11 : 1982 | Method for assessing the heat emission from building materials |
| | Part 12 : 1991 | Method of test for ignitability of products by direct flame impingement |
| | Part 13 : 1987 | Method of measuring the ignitability of products subjected to thermal irradiance |
| | Part 15 : 1993 | Method for measuring the rate of heat release of products |

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| | Part 20 : 1987 | Method for determination of the fire resistance of elements of construction (general principles) |
| | Part 22 : 1987 | Methods for determination of the fire resistance of non-loadbearing elements of construction |
| | Part 23 : 1987 | Methods for determination of the contribution of components to the fire resistance of a structure |
| 4. | BS 4072 : 1999 | Copper/chromium/arsenic preparations for wood preservation |
| 5. | MS 734 : 1981 | Specification for wood preservation by means of pressure creosoting |
| 6. | NFX 70-100 | Toxicity test |
| 7. | SS 72 : 1988 | Specification for treatment of timber and plywood with copper/chrome/arsenic wood preservatives |
| 8. | SS CP 7 : 1997 | Code of practice for the structural use of timber |
| 9. | British Wood Preserving Association Standards BWPA 112-116 | |

Attention is drawn to the possibility that some of the elements of this Singapore Standard may be the subject of patent rights. Enterprise Singapore shall not be held responsible for identifying any or all of such patent rights.

NOTE

1. *Singapore Standards (SSs) and Technical References (TRs) are reviewed periodically to keep abreast of technical changes, technological developments and industry practices. The changes are documented through the issue of either amendments or revisions.*
2. *An SS or TR is voluntary in nature except when it is made mandatory by a regulatory authority. It can also be cited in contracts making its application a business necessity. Users are advised to assess and determine whether the SS or TR is suitable for their intended use or purpose. If required, they should refer to the relevant professionals or experts for advice on the use of the document. Enterprise Singapore shall not be liable for any damages whether directly or indirectly suffered by anyone or any organisation as a result of the use of any SS or TR.*
3. *Compliance with a SS or TR does not exempt users from any legal obligations.*

Code of practice for the use of timber in buildings

1 Scope

This Code applies to dimensions and species of timber and processed timber (see 3.1.2) suitable for application in buildings.

2 Purpose

The purpose of this Code is to prescribe the use of different types of timber which are adequate for the satisfactory function of the various non-structural members and which will at the same time ensure efficient utilisation of timber resources. Reference to sizes of structural members is to be obtained from Tables 8 to 17.

3 Type of timbers

The type of natural timbers and processed timbers recommended by this Code is given in Table 1.