

BS 2482:2009



BSI Standards Publication

Specification for timber scaffold boards

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Summary of pages

This document comprises a front cover, an inside front cover, pages i to iv, pages 1 to 24, an inside back cover and a back cover.

Foreword

Publishing information

This British Standard is published by BSI and came into effect on 30 June 2009. It was prepared by Subcommittee B/514/42, *Access and working platforms*, under the authority of Technical Committee B/514, *Access and support equipment*. A list of organizations represented on this committee can be obtained on request to its secretary.

Supersession

This British Standard supersedes BS 2482:1981, which is withdrawn.

Information about this document

This is a full revision of the standard, and introduces the following principal changes.

- a) 50 mm thick boards are no longer included within the standard.
- b) The method of selection of 38 mm thick boards has been revised and two grades with different maximum support centres (1.2 m and 1.5 m) are now specified.
- c) The method of selection of 63 mm thick boards has been revised and a single grade with maximum support centres of 2.5 m is now specified.
- d) Annex A provides updated information on the performance characteristics of boards conforming to this standard.
- e) Annex B provides information on support centres, which are defined in terms of a 'target span' with a setting-out allowance.

Guidance on the use of scaffold boards in access scaffolding is given in the National Access and Scaffolding Confederation's technical guidance notes, *A guide to good practice for scaffolding with tubes and fittings (TG20:08)* [1] and also BS EN 12811 for scaffold platforms.

Attention is drawn to the UK government's timber procurement policy, which requires that timber used at construction sites for all central government projects is from a legal and sustainable source. Guidance on implementation is offered by the Central Point of Expertise for Timber Procurement (CPET).¹⁾

Product certification/inspection/testing

Users of this British Standard are advised to consider the desirability of third-party certification/inspection/testing of product conformity with this British Standard. Users seeking assistance in identifying appropriate conformity assessment bodies or schemes may ask BSI to forward their enquiries to the relevant association.

Presentational conventions

The provisions of this standard are presented in roman (i.e. upright) type. Its requirements are expressed in sentences in which the principal auxiliary verb is "shall".

¹⁾ Available at www.proforest.net/cpet.

Commentary, explanation and general informative material is presented in smaller italic type, and does not constitute a normative element.

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 British Standard specifies requirements for timber scaffold boards with a width of 225 mm and a thickness of either 38 mm or 63 mm.

It covers board sizing, board construction, and timber quality and grading, for which it specifies:

- a) two grades for 38 mm thick scaffold boards, as follows:
 - 1) 1.2 m support centre – a grade that is suitable for support at centres up to 1.2 m, which may be selected by visual or machine strength grading;
 - 2) 1.5 m support centre – a grade that is suitable for support at centres up to 1.5 m, which may only be selected by machine strength grading.
- b) a single grade for 63 mm thick scaffold boards that is suitable for support at centres up to 2.5 m, which may be selected by visual or machine strength grading.

This British Standard does not cover laminated or finger-jointed scaffold boards.

NOTE Annex A provides information on performance characteristics. Annex B provides information on support centres.

2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

BS 1706, *Method for specifying electroplated coatings of zinc and cadmium on iron and steel*

BS 4978, *Specification for visual strength grading of softwood*

BS 6100-4, *Glossary of building and civil engineering terms – Part 4: Forest products*

BS 6338, *Specification for chromate conversion coatings on electroplated zinc and cadmium coatings*

BS EN 10143, *Continuously hot-dip coated steel sheet and strip – Tolerances on dimensions and shape*

BS EN 13183-1, *Moisture content of a piece of sawn timber – Part 1: Determination by oven dry method*

BS EN 13556, *Round and sawn timber – Nomenclature of timbers used in Europe*

3 Terms and definitions

For the purposes of this British Standard, the nomenclature given in BS EN 13556, and the terms and definitions given in BS 6100-4 and the following apply.

3.1 scaffold board

board intended to provide part of the support surface or platform in scaffolding when supported at appropriate centres and subjected to anticipated loadings

NOTE Alternative names include “scaffold plank” and “scaffold batten”.

3.2 target span

support centres for which the grading rules for the scaffold board have been developed

4 Types of timber

Timbers for scaffold boards shall be selected from those specified in Table 1 or Table 2, as appropriate.

Table 1 **Timbers for machine grading of scaffold boards, for which settings have been derived**

Standard name	Botanical species	Other common names
Europe		
Redwood	<i>Pinus sylvestris</i>	European redwood
Whitewood	<i>Picea abies</i>	European whitewood
	<i>Abies alba</i>	European whitewood

Table 2 **Timbers for visual grading of scaffold boards**

Standard name	Botanical species	Other common names
Europe		
Redwood	<i>Pinus sylvestris</i>	European redwood
Whitewood	<i>Picea abies</i>	European whitewood
	<i>Abies alba</i>	European whitewood
Canadian species combinations		
Douglas fir – larch	<i>Pseudotsuga menziesii</i>	Douglas fir
	<i>Larix occidentalis</i>	Western larch
Hem – fir	<i>Tsuga heterophylla</i>	Western hemlock
	<i>Abies amabilis</i>	Amabilis fir
	<i>Abies grandis</i>	Grand fir
Spruce – pine – fir	<i>Picea mariana</i>	Black spruce
	<i>Picea engelmanni</i>	Engelmann spruce
		Eastern Canadian spruce
	<i>Picea rubens</i>	Red spruce
	<i>Picea glauca</i>	White spruce
	<i>Pinus banksiana</i>	Jack pine
	<i>Pinus contorta</i>	Lodgepole pine
	<i>Pinus ponderosa</i>	Ponderosa pine
	<i>Abies lasiocarpa</i>	Alpine fir
	<i>Abies balsamea</i>	Balsam fir

Table 2 Timbers for visual grading of scaffold boards (*continued*)

Standard name	Botanical species	Other common names
USA		
Southern yellow pine	<i>Pinus echinata</i>	Shortleaf pine
	<i>Pinus palustris</i>	Longleaf pine
	<i>Pinus elliottii</i>	Slash pine
	<i>Pinus taeda</i>	Loblolly pine

NOTE 1 The most commonly available timber is European whitewood.

NOTE 2 This table lists those timbers known to be suitable for use for the production of scaffold boards. No attempt has been made to list timbers in such a manner as to indicate their relative strengths.

5 Dimensions and tolerances

Basic cross-sectional sizes, when measured at 20% moisture content in accordance with BS EN 13183-1, shall conform to Table 3.

Table 3 Target cross-sectional sizes

Thickness mm	Width mm
38 ±2	225 ±5
63 ±3	225 ±5

It shall be assumed that the thickness and width of a board:

- a) increase by 0.25% for every 1% of moisture content higher than 20% up to 27%; and
- b) decrease by 0.25% for every 1% of moisture content lower than 20%.

A finished scaffold board shall be of the length described by the supplier, with a tolerance of ±25 mm, except in the case of boards of basic length greater than 3.9 m, for which the tolerance on length shall be ±50 mm.

NOTE 1 If more precise lengths than those specified are required for system (prefabricated) scaffolds, the tolerances should be those defined as acceptable by the scaffold manufacturer.

NOTE 2 Crosscutting is permissible as this does not affect the structural integrity of the board. For visually graded boards, all defects will have been visually assessed. For machine graded boards, the board will have been mechanically assessed along its length.

6 Construction

6.1 General

The face surface shall be sawn, edges shall be sawn or planed, and corners shall be left square. Ends shall be protected from splitting by the use of either end bands (see 6.2) or nailplates (see 6.3), fitted in such a manner as to avoid causing injury.

6.2 End bands

6.2.1 General

End bands shall be so finished as to avoid causing injury through sharp ends.

6.2.2 38 mm thick boards

End bands shall be made from zinc-coated mild steel conforming to BS EN 10143, with a thickness of not less than 0.6 mm. The width of the end bands shall be not less than 20 mm and not greater than the thickness of the board. They shall extend for a minimum of 150 mm along the edge of the board.

The end bands shall be secured to the edge of the board along each side with:

- a) not fewer than two 30 mm × 3.0 mm clout nails, galvanized in accordance with BS 1706 or zinc-plated and chromate-conversion-coated in accordance with BS 6338; or
- b) not fewer than two 1.8 mm wire × 11.3 mm crown × 30 mm long staples, galvanized to BS 6338 or made from stainless steel.

NOTE 1 When using staples to secure the end band to the board, the crowns of the staples should be fitted perpendicular to the edge of the board.

The end bands shall be secured to the end of the board with:

- 1) not fewer than three 30 mm × 3.0 mm clout nails, either galvanized in accordance with BS 1706 or zinc-plated and chromate-conversion-coated in accordance with BS 6338; or
- 2) not fewer than three 1.8 mm wire × 11.3 mm crown × 30 mm long staples, galvanized to BS 6338 or made from stainless steel; or

NOTE 2 When using staples to secure the end band to the board, the crowns of the staples should be fitted perpendicular to the end of the board.

- 3) not fewer than 28 teeth, stamped or pressed from the end band in such a way that sharp strips of steel are bent from the slots to project at approximately 90° from the inner face of the band.

6.2.3 63 mm thick boards

End bands shall be made from zinc-coated mild steel conforming to BS EN 10143, with a thickness of not less than 0.6 mm. The width of the end bands shall be not less than 47 mm and not greater than the thickness of the board. They shall extend for a minimum of 100 mm along the edge of the board.

The end bands shall be secured to the edge of the board along each side with:

- a) not fewer than two 30 mm × 3.0 mm clout nails, galvanized in accordance with BS 1706 or zinc-plated and chromate-conversion-coated in accordance with BS 6338; or
- b) not fewer than two 1.8 mm wire × 11.3 mm crown × 30 mm long staples, galvanized to BS 6338 or made from stainless steel.

NOTE 1 When using staples to secure the end band to the board, the crowns of the staples should be fitted perpendicular to the edge of the board.

The end bands shall be secured to the end of the board with:

- 1) not fewer than three 30 mm × 3.0 mm clout nails, either galvanized in accordance with BS 1706 or zinc-plated and chromate-conversion-coated in accordance with BS 6338; or
- 2) not fewer than three 1.8 mm wire × 11.3 mm crown × 30 mm long staples, galvanized to BS 6338 or made from stainless steel; or

NOTE 2 When using staples to secure the end band to the board, the crowns of the staples should be fitted perpendicular to the end of the board.

- 3) not fewer than 28 teeth, stamped or pressed from the end band in such a way that sharp strips of steel are bent from the slots to project at approximately 90° from the inner face of the band.

6.3 Nailplates

Nailplates shall be made from galvanized sheet steel, by stamping or pressing a pattern of slots so that sharp strips of steel are bent from the ends of the slots to project at approximately 90° from the inner face of the plate.

The plates shall have a thickness of not less than 0.7 mm (22 gauge) with a width of not less than 27 mm and length of not less than 190 mm.

There shall be not fewer than 42 teeth per plate and at least 50% of these teeth shall have a length of not less than 8 mm. At least two plates shall be attached across each end of the board (one on each face) and shall be positioned within 230 mm of the end of the board.

The nailplates shall be attached by being pressed into the face of the scaffold board until the upper surface of the nailplate is flush with that of the board. Before the nailplate is inserted, pressure shall be applied to the edges of the board in order to close any fissures that might be present. The size limits of fissures shall conform to 7.2.2.4.

7 Timber quality

7.1 General

Timber shall be assessed in accordance with 7.2 or 7.3, as appropriate.

Both visual and machine strength grading operations shall be carried out by a competent, adequately trained and supervised person.