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Visual strength grading of softwood — Specification

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Summary of pages

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Foreword

Publishing information

This British Standard was published by BSI and came into effect on 31 May 2007. It was prepared by Technical Committee B/518, *Structural timber*. A list of organizations represented on this committee can be obtained on request to its secretary.

Supersession

BS 4978:2007+A1:2011 superseded BS 4978:2007, which has been withdrawn.

BS 4978:2007+A2:2017 supersedes BS 4978:2007+A1:2011, and has been updated to be brought into line with the requirements of BS EN 14081: 2016.

This edition of this British Standard has been revised to conform to the requirements of BS EN 14081-1.

Information about this document

The start and finish of text introduced or altered by Amendments No 1 and No 2 is indicated in the text by tags A1 A1 and A2 A2. Minor editorial changes are not tagged.

This British Standard provides the means of assessing the quality and strength capabilities of softwood for which characteristic values as strength classes are given in BS EN 338. The assignments of species/grade combinations to those strength classes is given in BS EN 1912, which incorporates the grades defined in this British Standard.

In this British Standard [Annex A](#) specifies the method to be used for the determination of knot area ratio in cases of dispute, and [Annex B](#) specifies the minimum requirements for the control of strength grading operations.

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”.

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 a $\boxed{A_2}$ methodology for the visual strength grading of softwood $\langle A_2 \rangle$ for structural use.

The permissible limits of characteristics $\boxed{A_2}$ are specified for two visual strength grades of softwood:

- GS – General Structural; and
- SS – Special Structural. $\langle A_2 \rangle$

$\boxed{A_1}$ Text deleted $\langle A_1 \rangle$

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.

$\boxed{A_2}$ Text deleted $\langle A_2 \rangle$

$\boxed{A_1}$ Text deleted $\langle A_1 \rangle$

BS EN 336, *Structural timber — Sizes, permitted deviations*

$\boxed{A_1}$ Text deleted $\langle A_1 \rangle$

BS EN 1310:1997, *Round and sawn timber — Method of measurement of features*¹⁾

BS EN 1912, *Structural timber — Strength classes — Assignment of visual grades and species*

$\boxed{A_1}$ BS EN 1995-1-1, *Eurocode 5: Design of timber structures – Part 1-1: General — Common rules and rules for buildings* $\langle A_1 \rangle$

BS EN 13183-2, *Moisture content of a piece of sawn timber — Part 2: Estimation by electrical resistance method*

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

BS EN 14081-1, *Timber structures — Strength graded structural timber with rectangular cross section — Part 1: General requirements*

$\boxed{A_1}$ BS EN 14250, *Timber structures — Product requirements for prefabricated structural members assembled with punched metal plate fasteners* $\langle A_1 \rangle$

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 $\boxed{A_2}$ Text deleted $\langle A_2 \rangle$ BS EN 14081-1, BS EN 336 $\boxed{A_1}$ Text deleted $\langle A_1 \rangle$ and the following apply.

3.1 dry graded timber

$\boxed{A_2}$ timber which has been dried before strength grading is completed $\langle A_2 \rangle$

3.2 fissure

longitudinal separation of fibres, appearing on a face, edge or end of a piece of softwood, and including checks, shakes and splits

¹⁾ $\boxed{A_2}$ To be withdrawn and superseded by BS EN 1309-3 (in preparation) in 2018. $\langle A_2 \rangle$