

BS 8417:2011+A1:2014

Incorporating Corrigendum No. 1



BSI Standards Publication

Preservation of wood – Code of practice

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Summary of pages

This document comprises a front cover, an inside front cover, pages i to iv, pages 1 to 18, an inside back cover and a back cover.

Foreword

Publishing information

This British Standard is published by BSI Standards Limited, under licence from the British Standards Institution, and came into effect on 31 March 2011. It was prepared by Technical Committee B/515, *Wood Preservation*. A list of organizations represented on this committee can be obtained on request to its secretary.

Supersession

BS 8417:2011 superseded BS 1282:1999, which has been withdrawn.

BS 8417:2011+A1:2014 supersedes BS 8417:2011, which is withdrawn.

Relationship with other publications

This British Standard is one of a group of documents dealing with the preservative treatment of wood. It is based on the principles given in BS EN 599-1, BS EN 351-1 and BS EN 335 developed to support product standards mandated by the Construction Products Directive [1]. This standard is the national interpretative document for BS EN 599-1 and BS EN 351-1, and is intended to provide complementary information that is relevant to the wood treater and to the specifier or purchaser of treated wood for use in the United Kingdom.

Information about this document

BS 8417:2011 was a full revision of the standard and introduced the following principal changes:

- a) recommendations for the application of preservatives conforming to BS 4072 and BS 5707 are omitted as these materials are now largely unavailable;
- b) "R" (the lowest appropriate level of preservative retention), qualified by a number identifying the relevant use class, replaces "cv" (the critical value derived from tests in BS EN 599-1) as the designator of preservative retention in Table 4;
- c) the recommendation for the acceptable quality level for resistant wood to be used in use class 4 and use class 5 has been updated.

Text introduced or altered by Amendment No. 1 or Corrigendum No. 1 is indicated in the text by tags A1 A1 and C1 C1, respectively. Minor editorial changes are not tagged.

Use of this document

As a code of practice, this British Standard takes the form of guidance and recommendations. It should not be quoted as if it were a specification and particular care should be taken to ensure that claims of compliance are not misleading.

Any user claiming compliance with this British Standard is expected to be able to justify any course of action that deviates from its recommendations.

It has been assumed in the preparation of this British Standard that the execution of its provisions will be entrusted to appropriately qualified and experienced people, for whose use it has been produced.

Presentational conventions

The provisions in this standard are presented in roman (i.e. upright) type. Its recommendations are expressed in sentences in which the principal auxiliary verb is “should”.

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 gives recommendations and guidance for the preservative treatment of wood to provide protection against biodeterioration in end-use situations. It gives recommendations for determining the need for treatment and specifying the type of treatment.

It also recommends levels for the penetration and retention requirements of preservatives tested to BS EN 599-1 and for boron and creosote preservatives, using the terminology used in BS EN 351-1, for different timber components and takes into account the natural durability and treatability of the wood employed, the use class as defined in BS EN 335 and the desired service life. It also provides guidance on establishing whether a specified level of treatment has been achieved.

This British Standard does not include precise treatment parameters to achieve the recommended penetrations and retentions. It is the responsibility of the treater to use wood in an appropriate condition and to use an appropriate treatment schedule to achieve the recommended values.

This British Standard applies only to solid wood, including glued laminated wood. It does not apply to panel products, as no European standards have been published on the preservation of these products. This British Standard does not apply to wood, which has been modified by physical, biological or non-biocidal chemical techniques in order to enhance its performance.

This British Standard does not apply to curative treatments.

NOTE Only preservatives approved under the Control of Pesticides Regulations 1986 (as amended) [2] or authorized under the Biocidal Products Regulations 2012 [3] are permitted for the treatment of wood in the United Kingdom.

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 EN 330, *Wood preservatives – Field test method for determining the relative protective effectiveness of wood preservative for use under a coating and exposed out-of-ground contact – L-joint method*

BS EN 335, *Durability of wood and wood-based products – Use classes: definitions, application to solid wood and wood-based products*

BS EN 350-2, *Durability of wood and wood-based products – Natural durability of solid wood – Part 2: Guide to natural durability and treatability of selected wood species of importance in Europe*

BS EN 351-1, *Durability of wood and wood-based products – Preservative treated solid wood – Part 1: Classification of preservative penetration and retention*

BS EN 351-2, *Durability of wood and wood-based products – Preservative treated solid wood – Part 2: Guidance on sampling for the analysis of preservative-treated wood*

BS EN 599-1, *Durability of wood and wood-based products – Performance of preservatives as determined by biological tests – Part 1: Specification according to hazard class*

BS EN 13183 (all parts), *Moisture content of a piece of sawn timber*

BS EN 13991, *Derivatives from coal pyrolysis – Coal tar based oils: Creosotes – Specifications and test methods*

[N1] WOOD PROTECTION ASSOCIATION. *WPA Manual – Industrial wood preservation – Specification and Practice*. Castleford: WPA, 2007.

3 Terms and definitions

For the purposes of this British Standard the terms and definitions given in BS EN 351-1 and the following apply.

3.1 acceptable quality level (AQL)

maximum percentage of units in a batch of treated wood which is allowed to fall below the specified penetration without causing the batch to be rejected

3.2 critical value (cv)

value equivalent to the highest biological reference value (in grams per square metre or kilograms per cubic metre) obtained from all the biological tests carried out in accordance with BS EN 599-1 for any given use class

NOTE The critical value will vary according to use class, method of application and organisms against which the preservative is to provide protection and whether it is to be applied to softwood or hardwood.

[BS EN 1001-2:2005, 4.18]

3.3 penetration requirement

minimum depth to which the active ingredient(s) of the wood preservative is (are) required to penetrate the wood

[BS EN 1001-2:2005, 4.59]

NOTE The term “penetration requirement” relates to the treatment specification (see Clause 5 and Clause 6) rather than a provision of this standard.

3.4 retention requirement

loading of the wood preservative product that is required in the analytical zone

NOTE 1 The retention requirement is expressed in grams of product per square metre for superficial application processes and kilograms of product per cubic metre for penetrating treatment processes. It is derived from the critical value in different ways depending upon the particular test involved.

[BS EN 1001-2:2005, 4.73]

NOTE 2 The term “retention requirement” relates to the treatment specification (see Clause 5 and Clause 6) rather than a provision of this standard.