

Wood preservation by means of copper/ chromium/arsenic compositions —

Part 2: Method for timber treatment

UDC 674.048

NO COPYING WITHOUT BSI PERMISSION EXCEPT AS PERMITTED BY COPYRIGHT LAW



Document Sharing Hub

Committees responsible for this British Standard

The preparation of this British Standard was entrusted by the Wood Preservation Standards Committee (WPC/-) to Technical Committee WPC/4, upon which the following bodies were represented:

- British Pest Control Association
- British Telecommunications plc
- British Wood Preserving Association
- Department of the Environment (Building Research Establishment, Princes Risborough Laboratory)
- Electricity Supply Industry in England and Wales
- Ministry of Defence
- Timber Research and Development Association
- Timber Trade Federation

This British Standard, having been prepared under the direction of the Wood Preservation Standards Committee, was published under the authority of the Board of BSI and comes into effect on 28 August 1987

© BSI 01-2000

First published as BS 4072 October 1966
First revision March 1974
Second revision as BS 4072-2 August 1987

The following BSI references relate to the work on this standard:
Committee reference WPC/4
Draft for comment 83/54338 DC

ISBN 0 580 15962 0

Amendments issued since publication

Amd. No.	Date of issue	Comments

Contents

	Page
Committees responsible	Inside front cover
Foreword	ii
1 Scope	1
2 Definition	1
3 Exchange of information	1
4 Preservative solution	2
5 Condition and preparation of timber for treatment	2
6 Loading in treatment cylinder	2
7 Treatment schedules	3
8 Handling and drying of treated timber	3
Appendix A Post-treatment operations on treated timber	4
Appendix B Method for determination of concentration of working solution	4
Appendix C Penetration	5
Appendix D Methods for determination of moisture content of timber before treatment	5
Figure 1 — Hydrometer reading: concentration calibration chart for working solutions of type 1 and type 2 CCA preservatives	7
Table 1 — Penetration depth of measuring electrodes	6
Publications referred to	Inside back cover

Foreword

This Part of BS 4072, which has been prepared under the direction of the Wood Preservation Standards Committee, was first published in 1966 and revised in 1974 as a single standard covering both the specification and the application of this type of preservative, and including methods for sampling and analysis. BS 4072:1974 is now withdrawn.

This revision has been divided into two Parts:

- *Part 1: Specification for preservatives;*
- *Part 2: Method for timber treatment.*

The procedures for sampling, analysis and determination of degree of penetration are not now included as these are described in BS 5666-1, BS 5666-2 and BS 5666-3. The appendices on methods for the determination of concentration of working solution and moisture content have been retained, the latter expanded to include a moisture meter method. Some material concerning penetration and post treatment operations has been transferred to additional appendices.

A new clause has been added covering procedural details that need to be specified in addition to those given in the standard and/or which require prior agreement between the operator of the treatment process and the customer.

The alternative method of specifying treatment by treatment schedule, introduced by amendment in 1978, has been retained as the sole method. The specification by net retention given in the 1974 edition has been omitted because of the difficulties in measuring retention and relating retention to performance.

This Part of BS 4072 does not give details of concentration or required retentions and therefore, for use in relation to specific end uses or where a specified service life of the treated timber is required, the standard should be read in conjunction with the relevant commodity specification, e.g. BS 5589 (see 3.2.1) in which such details will usually be given.

NOTE 1 Further information on the use of copper/chromium/arsenic preservatives may be found in BS 1282, BS 5268-5 and BS 5589.

CAUTION. This Part of BS 4072 calls for the use of procedures and substances that may be injurious to health if adequate precautions are not taken. It refers only to technical suitability and does not absolve the user at any stage from legal obligations relating to health and safety.

Attention is especially drawn to the toxic nature of the formulations and their solutions. Particular care and the use of appropriate protective clothing is necessary. Special precautions are required for disposal of solutions.

The formulations described in BS 4072-1 have been given clearance under the Control of Pesticide Regulations 1986 SI 1510, but this requires that the precautionary advice covering handling and disposal attached to the clearance is observed.

NOTE 2 Attention is also drawn to the British Wood Preserving Association News Sheet no. 178:1985 "Safe use of wood preservatives in Great Britain", available from BWPA, 150 Southampton Row, London WC1B 5AL.

A British Standard does not purport to include all the necessary provisions of a contract. Users of British Standards are responsible for their correct application.

Compliance with a British Standard does not of itself confer immunity from legal obligations.

Summary of pages

This document comprises a front cover, an inside front cover, pages i and ii, pages 1 to 8, an inside back cover 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.

1 Scope

This Part of BS 4072 describes procedures for treatment of timber using water-borne copper/chromium/arsenic (CCA) preservative formulations complying with BS 4072-1.

It does not specify details of treatment relating to specific end uses for which reference to the relevant commodity specification should be made.

Requirements to be observed in post-treatment operations are given in Appendix A and do not necessarily relate directly to treatment using CCA preservative.

NOTE 1 This appendix may also be used as guidance by users of the treated timber.

In addition to the definitive procedures, this Part of BS 4072 also includes details that need to be specified and/or which require prior agreement between the operator of the treatment process (the treater) and the customer.

NOTE 2 The titles of the publications referred to in this standard are listed on the inside back cover.

2 Definition

For the purposes of this Part of BS 4072 the following definition applies.

commodity specification

any document providing details of preservative treatments required for a specific end use

NOTE Examples of such documents are: a British Standard specification; a British Standard code of practice, e.g. BS 5589; a published specification or recommendation of a relevant trade association or public authority.

3 Exchange of information

3.1 General

In order to carry out a treatment according to this standard it is necessary for the operator of the treatment process to be provided with the following supplementary information, which shall be fully documented. The information required consists of:

- a) essential information to be supplied to the treater (see 3.2);
- b) items to be agreed between the treater and the customer (see 3.3).

3.2 Essential items to be supplied to the treater

3.2.1 Commodity specifications. Any commodity specification to which reference is required for information or operating detail shall be clearly identified.

3.2.2 Timber to be treated. The following information shall be stated where relevant:

- a) the timber species (see 6.1 and 7.1);
- b) whether the end use is for poles complying with BS 1990 (see 5.1.3);
- c) whether incising is required (see 5.2).

if not specified in the relevant commodity specification.

3.2.3 Method of treatment. The treatment parameters shall be identified and precise schedules shall be specified, including pressures and periods for each treatment stage (see clause 7) unless these details are given in the relevant commodity specification.

3.3 Items to be agreed between the treater and the customer

3.3.1 General. If required by agreement between the treater and the customer, the items in 3.3.2 to 3.3.8 shall be stated.

3.3.2 Condition of timber for treatment. It shall be stated whether timber showing signs of attack by sapstain fungi or pinhole borers is an acceptable constituent of the charge (see 5.1.2).

3.3.3 Reduced pressure for pressure sensitive material. It shall be stated whether a minimum hydraulic pressure of 10 bar¹⁾ may be used with a consequential lengthening of the standard pressure period (see 7.2.3).

3.3.4 Analysis of working solution. It shall be stated whether analysis of the working solution is required.

3.3.5 Analysis of the treated timber. It shall be stated whether analysis of the treated timber in accordance with BS 5666-3 is required and if so, the sampling procedure required.

3.3.6 Inspection of treatment operation. It shall be stated whether the customer is to observe the treatment operation on site (see 7.4).

3.3.7 Drying after treatment. It shall be stated whether the treated timber is to be dried to a specified moisture content and, if so, the moisture content required (see 8.2).

3.3.8 Post-treatment operations. It shall be stated whether any post-treatment operations are to be undertaken prior to delivery of the timber. If so, the operations shall be in accordance with Appendix A.

¹⁾ 1 bar = 10⁵ Pa = 10⁵ N/m²