Australian Standard™

Methods of testing materials for resistance to fungal growth

Part 5: Resistance of timber to surface fungal growth

This Australian Standard was prepared by Committee CH/20, Resistance to Fungal Growth. It was approved on behalf of the Council of Standards Australia on 12 June 1998 and published on 5 August 1998.

The following interests are represented on Committee CH/20:

Australian Paint Manufacturers Federation

Australian Wool Research and Promotion Organization

CSIRO Forestry & Forest Products

Department of Defence (Australia)

Federated Tanners Association

Plastics and Chemicals Industries Association Incorporated

Surface Coatings Association Australia

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PREFACE

This Standard was prepared by the Standards Australia Committee CH/20, Resistance to Fungal Growth to supersede AS 1157.5—1971.

This is Part 5 of a series of methods for assessing the resistance to fungal growth of a range of commonly used materials. The other Standards in the series are as follows:

AS		
1157		Methods of testing materials for resistance to fungal growth
1157.1	Part 1:	General principles of testing
1157.2	Part 2:	Resistance of textiles to fungal growth
1157.3	Part 3:	Resistance of cordage and yarns to fungal growth
1157.4	Part 4:	Resistance of coated fabrics to fungal growth
1157.6	Part 6:	Resistance of leather to surface fungal growth
1157.7	Part 7:	Resistance of paper and paper products to surface fungal growth
1157.10	Part 10:	Resistance of adhesives and glues to fungal growth
1157.11	Part 11:	Resistance of rubbers and plastics to surface fungal growth

Appendix A has been adopted from BS 5761.2:1990 (EN 84:1989), *Wood preservatives—Accelerated ageing of treated wood prior to biological testing*, Part 2: *Leaching procedure*.

The term ‘normative’ has been used in this Standard to define the application of the appendix to which it applies. A ‘normative’ appendix is an integral part of a Standard.

CONTENTS

Page

STANDARDS AUSTRALIA

Australian Standard

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Part 5: Resistance of timber to surface fungal growth

1 SCOPE This Method specifies the procedure for determining the resistance of seasoned timber, including composite materials containing timber (including plywood, particleboard and cellulose-wood fibre boards) to surface growing fungi. These fungi may not physically weaken the timber or cause deep staining, but are objectionable for aesthetic reasons or for their adverse effect on surface properties.

Timbers to be tested according to this Method include treated or untreated timbers in the hazard class H2 (inside, above ground, protected from wetting and nil leaching) and hazard class H3 (outside, above ground, subject to periodic moderate wetting and leaching), as in AS 1604.

This Standard provides a laboratory test which is intended to provide severe, standardized assessment of fungal resistance under laboratory conditions. It does not include the testing of timber in the field which, although possibly more severe, is much longer in duration and also more subjective.

2 REFERENCED DOCUMENTS The following documents are referred to in this Standard:

AS	
1157	Methods of testing materials for resistance to fungal growth
1157.1	Part 1: General principles of testing
1604	Timber—Preservative-treated—Sawn and round
2543	Nomenclature of Australian timbers
AS/NZS	
4491	Timber—Glossary of terms in timber related Standards

3 PRINCIPLE The test specimens are heated or weathered, sterilized, inoculated with a mixed spore suspension and then incubated in the near saturated atmosphere over a free water surface for 14 days. At the end of this period the fungal growth on the test specimens and test control specimens is assessed.

4 APPARATUS AND TEST ORGANISMS

4.1 Apparatus The following apparatus is required:

(a) As specified in the following appendices of AS 1157.1:

(i) Sterilizing the equipment . . . . . Appendix C.

(ii) Sterilizing the test specimens . . . . . Appendix D.

(iii) Preparing the spore suspension . . . . . Appendix E.

(b) A forced air circulating oven, capable of continuous operation at a temperature of 50 ±2°C.