AS/NZS 2924.6:2024
ISO 4586-6:2018

Australian/New Zealand Standard™

High-pressure decorative laminates (HPL, HPDL) — Sheets based on thermosetting resins (usually called laminates)

Part 6: Classification and specifications for exterior-grade compact laminates of thickness 2 mm and greater (ISO 4586-6:2018, IDT)

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The following are represented on Committee TM-011:

Australian Forest Products Association
Australian Timber Importers Federation
Building Research Association of New Zealand (BRANZ)
Department of Agriculture, Fisheries and Forestry (QLD)
Engineered Wood Products Association of Australasia
Forest and Wood Products Australia
Frame & Truss Manufacturers Association Australia
Glued Laminated Timber Association of Australia
New Zealand Plywood Manufacturers Association
New Zealand Timber Industry Federation
Timber Design Society, New Zealand
Timber Development Association (NSW)
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Preface

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee TM-011, Engineered Timber Products.

The objective of this document is to specify requirements to exterior-grade compact laminates of thickness 2 mm and greater. It specifies requirements for standard and flame-retardant laminates intended for use under outdoor weather conditions such as direct sunlight, rain, and frost. Two levels of performance are specified; one for moderate exterior conditions, and the other for severe exterior conditions.

AS/NZS 2924.2:2024 specifies the methods of test relevant to this document.

This document is identical with, and has been reproduced from, ISO 4586-6:2018, *High-pressure decorative laminates (HPL, HPDL) — Sheets based on thermosetting resins (usually called laminates) — Part 6: Classification and specifications for exterior-grade compact laminates of thickness 2 mm and greater*.

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The terms “normative” and “informative” are used in Standards to define the application of the appendices or annexes to which they apply. A “normative” appendix or annex is an integral part of a Standard, whereas an “informative” appendix or annex is only for information and guidance.

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Full document details: AS NZS 2924.6-2024

Contents

Preface ii
Foreword iv
Introduction v
1 Scope 1
2 Normative references 1
3 Terms and definitions 1
4 Material types and classification system 2
5 Requirements 2
5.1 Compliance 2
5.2 Inspection requirements 2
5.2.1 General 2
5.2.2 Colour and pattern 3
5.2.3 Surface finish 3
5.2.4 Visual inspection 3
5.3 Dimensional tolerance requirements 4
5.4 Test requirements 4
5.4.1 Physical property requirements 4
5.4.2 Weather resistance requirements 6
5.4.3 Notes on requirements for reaction to fire (see Annex A) 7
Annex A (informative) **Addendum to 5.4.3, relating to fire performance** 8
Annex B (informative) **Assessment of conformity** 10
Bibliography 11

Documents
Document Sharing Hub
Full document details: AS NZS 2924.6-2024

Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation on the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT) see the following URL: www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 61, *Plastics*, Subcommittee SC 11, *Products*.

This second edition cancels and replaces the first edition (ISO 4586-6:2015), which has been technically revised.

The main changes compared to the previous edition are as follows:

— correction of errors due to typographical, formatting, and omission issues.

A list of all parts in the ISO 4586 series can be found on the ISO website.

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Introduction

Exterior-grade compact laminates are characterized by their high tensile strength, high impact resistance, thermal shock resistance, and resistance to weather and corrosion. They are available in a variety of decorative colours, with high resistance to colour change and aging in outdoor applications. When they are self-supporting exterior-grade compact laminates are ready for installation, and only require cutting to size, drilling, etc. to suit the application.

In an effort to harmonize ISO 4586 with other high-pressure decorative laminate standards, multiple methods may be published that demonstrate similar properties. In these instances, the same test method title is given and is annotated as either “Method A” or “Method B”. This is the case in the following tests: Edge squareness — 8/9, Dry heat — 17/18 Dimensional stability at elevated temperatures — 19/20, Dimensional stability at ambient temperature — 21/22, Staining — 30/31, Lightfastness — 32/33, Formability — 38/39, and Blistering — 40/41. In these instances, either method may be utilized in testing. Compliance to both methods is not required. While these tests are similar they are by no means identical and results of one method do not necessarily correspond to the results of the accompanying test. In these situations, it is intended that the documentation in specific parts of ISO 4586 for performance requirements be consulted. Each specific method has performance requirements particular to that method for individual grades of high-pressure decorative laminate.

This document has been harmonized with EN 438-6 whenever possible.

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