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# Australian Standard 1522, Part 1–1977

## METAL-CLAD BASE MATERIALS FOR PRINTED CIRCUIT BOARDS

## Part 1–METHODS OF TEST

STANDARDS ASSOCIATION OF AUSTRALIA
*Incorporated by Royal Charter*

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THE FOLLOWING SCIENTIFIC, INDUSTRIAL AND GOVERNMENTAL ORGANIZATIONS and departments were officially represented on the committee entrusted with the preparation of this standard:

Associated Chambers of Manufactures of Australia

Australian Telecommunications Development Association

Department of Productivity

Department of Transport

Electronics Association Australia

Institution of Radio and Electronics Engineers, Australia

Telecom Australia

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This standard, prepared by Committee TE/6, Printed Circuits, was approved on behalf of the Council of the Standards Association of Australia on 20 August 1976, and was published on 1 September 1977.

To keep abreast of progress in industry, Australian standards are regularly reviewed. Suggestions for improvements to published standards, addressed to the head office of the Association, are welcomed.

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*This standard was issued in draft form for public review as DR 73059.*

AUSTRALIAN STANDARD SPECIFICATION

# METAL-CLAD BASE MATERIALS FOR PRINTED CIRCUIT BOARDS

# Part 1

# METHODS OF TEST

## AS 1522, Part 1–1977

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# PREFACE

This standard was prepared by the Association's Committee on Printed Circuits.

In its terminology, format and general treatment of the subject, the standard is similar to and technically identical with IEC 249-1, as supplemented by IEC 249-1A, 1B, 1C and 1D and amended by the May 1976 meeting of IEC/TC 52, Printed Circuits.

The purpose of the standard is to describe tests for establishing standard physical properties for metal-clad base materials for printed circuit boards, irrespective of the nature of the base insulating material. The methods given are, however, applicable only to copper-clad base materials. The tests are type tests only and are not proposed for the collection of engineering data.

The number of specimens stated in a test for a particular property is the number required to produce a test result of sufficient precision to evaluate a single sample of material. These numbers should therefore, be taken from each sheet tested. The number of specimens stated has no relationship to the numbers required for continuous assessment of quality, in which case they will depend on the quality assurance system used and the sampling plan adopted to fulfil the special requirements of the system.

This standard is not intended for the evaluation of printed circuit boards. Test methods for this purpose are given in AS ...., General Requirements and Measuring Methods for Printed Boards.*

Specifications of base materials of types suitable for evaluation by these test methods described are given in AS 1522, Metal-clad Base Materials for Printed Circuit Boards, Part 2 — Specifications.

This standard requires reference to the following standards:

AS 1099 Basic Environmental Testing Procedures for Electronics and Telecommunications Purposes
Part 1 — General
Part 2 — Tests

AS 1255 Methods of Test for Electrical Characteristics of Solid Plastics Insulating Materials
Method 1 — Determination of Volume and Surface Resistivities
Method 2 — Determination of Insulation Resistance
Method 3 — Determination of Electric Strength at Power Frequencies
Method 4 — Determination of the Permittivity and Dielectric Dissipation Factor at Power, Audio and Radio Frequencies up to 300 MHz.

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* In course of preparation.

AS 1522 Metal-clad Base Materials for Printed Circuit Boards
Part 2 — Specifications.

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# CONTENTS


| | | Page |
|---|---|---|
| SECTION 1. SCOPE | | |
| 1.1 | Scope | 6 |
| SECTION 2. GENERAL REQUIREMENTS | | |
| 2.1 | Standard Atmospheric Conditions | 7 |
| 2.2 | Precision of Timing and Measurements | 7 |
| 2.3 | Preparation of Test Samples from Metal-clad Base Materials | 7 |
| SECTION 3. ELECTRICAL TESTS | | |
| 3.1 | Precautions to be Taken in Certain Electrical Tests | 9 |
| 3.2 | Resistance of Foil | 9 |
| 3.3 | Surface Resistance after Damp Heat, Steady State | 10 |
| 3.4 | Volume Resistivity after Damp Heat, Steady State | 11 |
| 3.5 | Surface Corrosion | 11 |
| 3.6 | Corrosion at the Edge | 12 |
| 3.7 | Comparative Tracking Index | 14 |
| 3.8 | Permittivity and Dissipation Factor after Damp Heat and Recovery | 15 |
| 3.9 | Electric Strength Normal to Plane of Sheet | 16 |
| 3.10 | Properties of Insulation at Elevated Temperature | 17 |
| SECTION 4. NON-ELECTRICAL TESTS | | |
| 4.1 | Bow | 24 |
| 4.2 | Bow after Heating | 24 |
| 4.3 | Twist | 24 |
| 4.4 | Twist after Heating | 25 |
| 4.5 | Pull-off Strength | 25 |
| 4.6 | Peel Strength | 26 |
| 4.7 | Blistering after Heat Shock | 30 |
| 4.8 | Punching and Machining | 31 |
| 4.9 | Surface Finish | 31 |
| 4.10 | Solderability | 32 |
| 4.11 | Dimensional Stability | 33 |
| 4.12 | Flexural Fatigue | 34 |
| 4.13 | Mass Per Unit Area of Metal Foil after Lamination (By Etching) | 36 |
| 4.14 | Thickness | 36 |

*Page*

SECTION 5. NON-ELECTRICAL TESTS ON THE BASE MATERIAL

5.1 Flexural Strength .. .. .. .. .. .. 47
5.2 Flammability .. .. .. .. .. .. .. 47
5.3 Water Absorption .. .. .. .. .. .. 52

FIGURES

1 Ring and Disc Pattern .. .. .. .. .. .. 20
2 Three-electrode Arrangement for Surface Resistance Measurement .. .. .. .. .. .. .. 21
3 Three-electrode Arrangement for Volume Resistance Measurement .. .. .. .. .. .. .. 21
4 An Example of an Apparatus for Testing for Corrosion at the Edge .. .. .. .. .. .. .. 22
5 Arrangement and Dimensions of the Electrodes for the Tracking Test .. .. .. .. .. .. .. 23
6 An Example of a Soldering Tool .. .. .. .. 38
7 Specimen for Peel Strength Measurement .. .. .. 39
8 Examples of Schematic Arrangements for Measuring Peel Strength .. .. .. .. .. .. .. .. 40
9 Fluidized Sand Bath .. .. .. .. .. .. 42
10 Inspection for Surface Defects — Suitable Arrangements .. 43
11 Solderability, Copper-clad Laminates.. .. .. .. .. 44
12 Location of Specimens on Original Sheet for Dimensional Stability Test .. .. .. .. .. .. .. 45
13 Location of Marks on Specimen for Dimensional Stability Test .. .. .. .. .. .. .. .. 45
14 Flexural Fatigue Test Pattern .. .. .. .. .. 45
15 Flexural Fatigue Test .. .. .. .. .. .. 46
16 Arrangement of Horizontal Burning Test for Rigid Materials 54
17 Protective Shield Used in Vertical Burning Test for Flexible Materials .. .. .. .. .. .. .. 55
18 Arrangement of Vertical Burning Test for Flexible Materials 56

APPENDICES

A Flexural Strength, ISO Method .. .. .. .. 57
B Determination of Water Absorption (ISO Procedure A) .. 64

STANDARDS ASSOCIATION OF AUSTRALIA

# Australian Standard Specification for METAL-CLAD BASE MATERIALS FOR PRINTED CIRCUIT BOARDS

## PART 1 — METHODS OF TEST

## SECTION 1. SCOPE

**1.1 SCOPE.** This standard describes methods of testing electrical, mechanical and other properties of metal-clad base materials in sheet or roll form for application in the field of printed circuits irrespective of the nature of the insulating base material.

The methods given herein, for the preparation of test samples and specimens, are complete for copper-clad materials only. They may be expanded in the future to cover materials clad with other metals.

NOTE: The test methods are intended for qualification or type tests only. The results should not be regarded as providing engineering data.