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Australian Standard 1295—1980

SYNTHETIC MATERIAL MEASURING TAPES

STANDARDS ASSOCIATION OF AUSTRALIA
Incorporated by Royal Charter

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

Association of Consulting Engineers, Australia

Australian Institute of Steel Construction

CSIRO National Measurement Laboratory

Department of Housing and Construction

Department of Lands, N.S.W.

Department of Public Works, N.S.W.

Master Builders Federation of Australia Incorporated

Manufacturers and importers

National Association of Australian State Road Authorities

Royal Australian Institute of Architects

The Institution of Surveyors, Australia

University of Sydney

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AUSTRALIAN STANDARD

SYNTHETIC MATERIAL MEASURING TAPES

AS 1295—1980

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PREFACE

This standard was prepared by the Association's Committee on Linear Measuring Instruments. It supersedes the first (1972) edition which was issued in one volume with other standards in the series under the designation AS 1290 to 1298, Linear Measuring Instruments for Use in Construction. Except for AS 1296 which is now withdrawn each of these standards is the subject of a new edition, issued separately.

The method of graduation is consistent with decisions on units, their multiples and submultiples made by the Metric Conversion Board and the Standards Association of Australia Metric Standards Advisory Committee.

In the preparation of this standard reference was made to a number of sources including— .

BS 3693 Recommendations for the Design of Scales and Indexes
Part 1—Instruments of Bold Presentation and for Rapid Reading

BS 4484 Measuring Instruments for Constructional Works
Part 1—Metric Graduation and Figuring of Instruments for Linear Measurement

and acknowledgment is made of the assistance obtained therefrom.

In this edition, the following clauses and figure have been amended:

4.1 Form of Graduation
4.3 Form of Figuring
6 Marking
Fig. 1

This standard requires reference to AS 1290, General Measurements for Linear Measuring Instruments Used in Construction.

CONTENTS

STANDARDS ASSOCIATION OF AUSTRALIA

Australian Standard
for
SYNTHETIC MATERIAL MEASURING TAPES

1 SCOPE. This standard specifies the requirements for synthetic material measuring tapes up to 30 m in length for use in construction.

2 GENERAL REQUIREMENTS. For the purpose of this standard the definitions and requirements for presentation, graduation, figuring and other markings set out in AS 1290 shall apply.

3 COMPONENTS.

3.1 Ribbon. The outer end of the ribbon shall be fitted with a metal ring connected securely to the ribbon. The ring and the connection shall be capable of withstanding a direct static force of 70 N, without damage or permanent deformation.

The connection between the other end of the ribbon and the winding drum shall also be capable of withstanding a direct static force of 70 N. In carrying out the tests on these connections, the force of 70 N shall be applied in the vicinity of the connections only, and not to the full length of the ribbon.

3.2 Case or Reel. All exposed steel parts of the winding case or reel shall be processed to resist corrosion.

The opening in the case for the ribbon shall be provided with rollers or slides forming a bearing.

There shall be adequate clearance between the internal peripheral face of the case and the fully wound-in tape.

4 GRADUATION AND FIGURING.

4.1 Form of Graduation. Graduation of the ribbon shall comply with the following requirements:

(a) The outside surface of the outer extremity of the ring at the end of the ribbon shall normally constitute the zero of the instrument.

An instrument in which the zero is the outer extremity of the ring, or a graduation mark on the ribbon, may be deemed to be acceptable.

(b) The tape shall be graduated throughout, on one edge of one face only, with major graduation marks at 1-m intervals (first order of magnitude), intermediate graduation marks at 100-mm and 50-mm intervals (first and second orders of magnitude respectively), and minor graduation marks at 10-mm intervals (fourth order of magnitude).

(c) The choice of edge for graduation is optional.

4.2 Graduation Marks. The graduation marks shall be clear lines of uniform thickness, normal to the edges of the ribbon.

The width of the graduation marks shall be not less than 0.2 mm nor more than 0.3 mm.

4.3 Form of Figuring. Tapes graduated and figured in a manner similar to that illustrated in Figs 1a or 1b, shall be deemed to satisfy the above requirements.

5 ACCURACY. For a newly-manufactured synthetic material tape supported on a horizontal surface at the tension marked on the tape and at a temperature of 20°C, the error in the length of the tape from the zero to the centreline of the last major graduation mark, and the error in the distance between the centrelines of any two graduation marks, should not exceed ± 10 mm or ± 1 mm in 2000, whichever is the greater.

NOTE: Because of insufficient information concerning synthetic material tapes, with respect to load-elongation behaviour, dependence of length on temperature, and long-term stability of length at standard temperature and given tension, the Standards Association of Australia is unable to recommend accuracy limits other than at manufacture.

6 MARKING. The instrument shall be marked in a permanent manner with the manufacturer's name and/or trademark with or without date code.

NOTE: Manufacturers who place the number of this Australian standard on products, packaging or literature related thereto should ensure that the products comply with the standard.

Attention is particularly drawn to the scheme for independent assurance provided by the AS Mark which is a registered certification trademark owned by the Standards Association of Australia.

The presence of the AS Mark on or in relation to a product is an assurance that the goods have been produced under a system of supervision, control and testing applied during manufacture and including periodical inspections at the manufacturer's works in accordance with the certification mark scheme of the SAA.

The AS Mark can be used only by manufacturers licensed under the certification mark scheme operated by the SAA, and only when accompanied by the number of the relevant Australian standard. It will usually be a requirement that the words 'Manufactured to Australian Standard' accompany the number of the standard and enclose the Mark as shown below.

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