AS 1391—1991

## Australian Standard®

# Methods for tensile testing of metals

This Australian Standard was prepared by Committee MT/6, Mechanical Testing of Metals. It was approved on behalf of the Council of Standards Australia on 27 December 1990 and published on 15 April 1991.

The following interests are represented on Committee MT/6:

Aluminium Development Council

Bureau of Steel Manufacturers of Australia

Confederation of Australian Industry

CSIRO, Division of Applied Physics

Department of Defence

Federal Chamber of Automotive Industries

Metal Trades Industry Association of Australia

National Association of Testing Authorities, Australia

Railways of Australia Committee

University of Sydney

University of Wollongong

Additional interests participating in preparation of Standard:

Calibrating organizations

Metal manufacturing industries

Testing and research organizations

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## Methods for tensile testing of metals

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#### PREFACE

This Standard was prepared by the Standards Australia Committee on Mechanical Testing of Metals to supersede AS 1391-1974.

In this edition, one strain rate is specified for the testing of all metals, and a strain rate range which corresponds to Strain rate A of the previous edition is specified for metals sensitive to strain rate. Four supplementary strain rate categories are included in an Appendix for use only with specialized testing procedures. In the previous edition, two supplementary categories were specified. The K-value method for controlling strain rate has been deleted and guidance on the means of controlling strain rate has been revised. The selection and range of test pieces have been clarified, although selection is normally covered in the relevant product Standard.

In preparing this revision, cognizance was taken of the International Standard ISO 6892–1984, *Metallic materials—Tensile testing*.

The Australian Standard is technically similar to ISO 6892 but contains more detailed requirements, especially in relation to test piece manufacture and strain rates, and gives more information for the assessment of yield stress and proof stress.

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