

Australian Standard[®]

Methods of testing concrete

**Part 11: Method for the
determination of the flexural
strength of concrete specimens**

This Australian standard was prepared by Committee BD/42, Methods of Testing Concrete. It was approved on behalf of the Council of the Standards Association of Australia on 16 September 1985 and published on 4 November 1985.

The following interests are represented on Committee BD/42:

Association of Consulting Engineers, Australia
Cement and Concrete Association of Australia
Confederation of Australian Industry
CSIRO, Division of Building Research
Department of Housing and Construction
Department of Public Works, N.S.W.
National Association of Australian State Roads Authorities
National Association of Testing Authorities, Australia
National Ready Mixed Concrete Association of Australia
University of New South Wales

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PREFACE

This edition of this standard was prepared by the Association's Committee on Methods of Testing Concrete and supersedes AS 1012, Part 11–1972.

The technical details of this standard are basically unaltered except for a minor change to the unusual fracture criteria.

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STANDARDS ASSOCIATION OF AUSTRALIA

Australian Standard

METHODS OF TESTING CONCRETE

Part 11—METHOD FOR THE DETERMINATION OF THE FLEXURAL
STRENGTH OF CONCRETE SPECIMENS

1 SCOPE. This standard sets out a method for determining the flexural strength (modulus of rupture) of concrete test specimens prepared in accordance with AS 1012, Part 8, tested as simple beams with third-point loading.

2 REFERENCED DOCUMENTS. The following standards are referred to in this standard:

AS 1012 Methods of Testing Concrete

Part 8— Method for Making and Curing Concrete Compression, Indirect Tensile and Flexure Test Specimens in the Laboratory or in the Field

Part 9— Method for the Determination of the Compressive Strength of Concrete Specimens

AS 2193 Methods for the Calibration and Grading of Force-measuring Systems of Testing Machines

3 ACCEPTANCE OF TEST SPECIMENS. Moulded flexure test specimens shall be accepted for test if they appear to have been moulded in accordance with the provisions of AS 1012, Part 8, and if they appear to be free from defects likely to affect their strength.

Where specimens liable to rejection are tested, all apparent defects shall be noted in accordance with Clauses 9 and 10 herein.

Specimens shall be liable to rejection if any of the following conditions exist:

- (a) Chipped edges, surface cracking or honeycombing are apparent anywhere in the tested span.
- (b) The surfaces of the specimen are out of plane such that any of the lines of contact between the bearing surfaces on which the rollers bear are out of plane by more than 0.1 mm.

4 APPARATUS.

4.1 Testing machines. The testing machine shall comply with the following requirements: