AS 1170.2—1989

Australian Standard®

SAA Loading Code

Part 2: Wind loads

This Australian Standard was prepared by Committee BD/6, Loading on Structures. It was approved on behalf of the Council of Standards Australia on 19 December 1988 and published on 20 March 1989.

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Association of Consulting Engineers, Australia
Association of Consulting Structural Engineers, Australia
Australian Clay Brick Association
Australian Construction Services (Department of Administrative Services)
Australian Council of Local Government Associations
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Australian Standard®

Minimum design loads on structures (known as the SAA Loading Code)

Part 2: Wind loads

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PREFACE

This Standard was prepared by the Standards Australia Committee for Loading on Structures to supersede AS 1170—1983, *Minimum design loads on structures, Part 2—Wind forces.*

This Standard is intended to be used for the determination of the minimum wind loads in structural design, and is in a limit states format.

It provides a simplified procedure (Section 2) for the determination of wind loads on a limited range of small buildings and structures, and a detailed procedure (Sections 3 and 4) for determination of wind loads on a wide range of structures, varying from those less sensitive to wind action, to those for which dynamic response must be taken into consideration. It permits wind tunnel tests or similar determinations of wind loads on structures.

Explanatory material for this Standard are given in Appendices C to F, which correspond to Sections 1 to 4.

The Standards Australia Committee has considered exhaustive research and testing information from Australian and overseas sources in the preparation of this Standard with a view to reducing the design wind loads by the maximum extent consistent with safety. The design wind loads prescribed in this Standard are the minimum for the general cases. These will be circumstances arising in particular cases, which will result in additional loads requiring to be taken note of in the design of structures in those cases. Designers must be alert to the conditions to which their particular structure is exposed and must take note of all the provisions in clauses and notes under the clauses.

This Standard differs from the previous Standard as follows:

(a) Windspeeds are specified for the serviceability and ultimate strength/stability limit states, and for permissible stress design.

(b) Return periods and windspeed contours (isopleths) have been deleted.

(c) Regional boundaries have been included (boundaries of the tropical cyclone regions are slightly modified).

(d) Direct shielding allowance is separately identified and extended.

(e) A more rational system of multipliers for wind speed and external pressures is provided.

(f) Methods of calculating wind loads on cantilevered roofs, attached canopies, awnings, carports, circular cross-sections, such as bins, silos and tanks, and lattice towers have been added. Existing data on pressure and force coefficients have been revised in the light of recent research.

(g) Dynamic analysis has been expanded (replaces Annex: ‘Notes on Wind Forces on Tall Buildings’ in the previous edition).

(h) References to other publications are listed numerically at the end of this document.

(i) Statements expressed in mandatory terms in Notes to tables and figures are deemed to be requirements of this Standard.

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