

AS 1170.3—1990

Australian Standard<sup>®</sup>

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**SAA Loading Code**

**Part 3: Snow loads**

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This Australian Standard was prepared by Committee BD/6, Loading on Structures. It was approved on behalf of the Council of Standards Australia on 31 October 1989 and published on 26 January 1990.

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The following interests are represented on Committee BD/6:

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  
Australian Federation of Construction Contractors  
Australian Institute of Steel Construction  
Australian Mining Industry Council  
Bureau of Meteorology  
Bureau of Steel Manufacturers of Australia  
CSIRO, Division of Building, Construction and Engineering  
Department of Local Government, Qld  
Electricity Supply Association of Australia  
Engineering and Water Supply Department, S.A.  
James Cook University of North Queensland  
Master Builders' Construction and Housing Association, Australia  
Monash University  
National Association of Australian State Road Authorities  
Public Works Department, N.S.W.  
University of Melbourne  
University of Newcastle

Additional interests participating in preparation of Standard:

National Parks and Wildlife Service, N.S.W.  
Public Works Department, Vic.  
Shire of Bright, Vic.  
Snowy Mountains Hydro-Electric Authority, N.S.W.

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Australian Standard<sup>®</sup>

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**Minimum design loads on  
structures**

**Part 3: Snow loads**

**(known as the SAA Loading Code)**

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## PREFACE

This Standard was prepared by the Standards Australia Committee for Loading on Structures.

In preparing this Standard the Committee referred to the following:

- (a) ANSI A58.1–1982, *American National Standards Institute – Minimum Design Loads for Buildings and other Structures*.
- (b) *National Building Code of Canada*, 1980.

The Supplement to the National Building Code of Canada – 1980.

- (c) ISO 4355–1981 International Standard, *Bases for Design of Structures, Determination of Snow Loads on Roofs*.

Data on ground snow depths and densities were obtained mainly from the Bureau of Meteorology, Authorities, such as The Snowy Mountains Authority, and a private meteorologist.

The Committee acknowledges the assistance obtained from these sources.

The relationship between roof snow load and ground snow load was established on the basis of field observations by members of the Committee over many years, particularly years of very heavy snowfalls.

This Standard is intended to be used in establishing snow loads on roofs, balconies, walkways and other building surfaces which retain snow. It also provides guidance (see Appendix B) on the avoidance of common problems which occur mainly in alpine regions due to movement, sliding or drifting of snow.

Snow loads are difficult to assess accurately not only because the amount of snow which falls is sensitive to general and local topography but also because the amount of snow which is retained on the roof is sensitive to roof slope, roof geometry and orientation.

Designers must be alert to the extra snow loads which certain roof shapes attract, because of drifting effects. Blockages and effects of sliding snow or snow creep on the roof and in the environs of the building are further considerations for the designer.

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

A Commentary (see AS 1170.3 Supplement 1) provides background material to the requirements of this Standard and includes some worked examples to illustrate its application.

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