Australian Standard®

SAA LOADING CODE

Part 1— DEAD AND LIVE LOADS

The following scientific, industrial, professional and governmental organizations and departments were officially represented on the committee entrusted with the preparation of this standard:

Association of Consulting Engineers Australia

Australian Clay Brick Association

Australian Council of Local Government Associations

Australian Federation of Construction Contractors

Australian Institute of Steel Construction Ltd

Bureau of Meteorology

Bureau of Steel Manufacturers of Australia

Department of Housing and Construction

Department of Local Government, Queensland

Department of Public Works, Western Australia

Division of Building Research CSIRO

Electricity Supply Association of Australia

Engineering and Water Supply Department South Australia

Experimental Building Station

Master Builders Federation of Australia Incorporated

National Association of Australian State Road Authorities

James Cook University of North Queensland

Monash University

University of Melbourne

This standard, prepared by Committee BD/ 6, Loading on Structures, was approved on behalf of the Council of the Standards Association of Australia on 12 September 1980, and was published on 1 March 1981.

This standard is intended to establish the minimum intensity of loading to be used in the structural design of buildings but does not purport to comprise all the necessary provisions of a contract.

Australian Standard®

MINIMUM DESIGN LOADS ON STRUCTURES

KNOWN AS THE SAA LOADING CODE

Part 1
DEAD AND LIVE LOADS

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PREFACE

This edition of this standard has been prepared by the Association's Committee on Loading of Structures. No new technical changes from the 1971 edition have been introduced in this edition, but some editorial updating has been carried out and the opportunity has been taken to present the standard in A4 size in order to facilitate reference from other major SAA structural codes, all of which are now in A4 size.

The standard is intended to be used in establishing the minimum dead and imposed loadings to be assumed in the structural design of buildings, industrial structures and the like but does not apply to special structures such as bridges and cranes nor to loads arising from fluid pressures.

In establishing the metric unit values derived from the former imperial-unit standard (AS CA34, Part 2), some rounding off of numbers has been carried out generally in line with BS CP3, Chapter V—Part 1; for example—

1 in = 25 mm (25.4 mm exact).

Similarly, concentrated loads have been limited to one place of decimals; e.g.—

1.8 kN = 400 lbf (405 lbf exact).

The density of materials has been rounded to the nearest 10 kg/m^3; e.g. aluminium 2720 kg/m^3 (2723 kg/m^3 exact). It should be noted that where data in this Standard are given in units of *mass*, the gravitational forces in newtons imposed by such masses may be obtained by multiplying the values given in kilograms by 10. This is an approximation of the value of acceleration due to gravity which is very close to 9.8 ms^2 in Australia (see AS 1155—1974, Appendix B).

Attention is drawn to the following Australian standards which may be required for use in connnection with this standard:

AS 1000 The International System of Units (SI) and its Application

AS 1155 Metric Units for Use in the Construction Industry

AS 1170 SAA Loading Code
Part 2—Wind Forces

AS 1418 SAA Crane Code

AS 1657 SAA Code for Fixed Platforms, Walkways, Stairways and Ladders

AS 1684 SAA Timber Framing Code

AS 1735 SAA Lift Code

AS 2121 SAA Earthquake Code.

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Australian Standard

for

MINIMUM DESIGN LOADS ON STRUCTURES

PART 1—DEAD AND LIVE LOADS

SECTION 1. SCOPE AND GENERAL

1.1 SCOPE. This standard sets out requirements for establishing the minimum dead and live loads to be used in the structural design of buildings and of structures associated with buildings which are to be erected under the provisions of building regulations, by-laws, ordinances, and the like.

It does not cover loads arising from pressures exerted by contained material in bunkers, tanks, silos and the like, nor does it cover loadings on special structures such as road or rail bridges or lifting devices.

For wind loads for structural design purposes, see AS 1170, Part 2.

NOTE: Information on earthquake loads is provided in AS 2121.

1.2 COMBINATIONS OF LOADING. Except as otherwise noted, all structures to which this standard applies shall be designed, consistently with relevant SAA structural design standards, to withstand such combinations of dead, live, wind and other loads as are appropriate to the design of the structure and will produce the most adverse effects.

1.3 DEFINITIONS. For the purposes of this standard the following definitions apply:

Live load—the load assumed to arise from the intended use or purpose of the building or structure, including distributed, concentrated, impact and inertia loads, but excluding wind, snow and earthquake loads.

NOTE: Many live loads are applied for short durations relative to the life of the structure. However, the attention of the designer is drawn to the fact that some live loads falling within the definition given above may be of long duration, and have an effect similar to dead loads (see Clause 3.5, Long Duration Loading).

Dead load—the load imposed by components of the building or structure including the forces imposed by all walls, floors, roofs, suspended ceilings, permanent partitions, service machinery (including lift and air-conditioning machinery), and other permanent construction (including reticulated services).

1.4 WORKING DRAWINGS. The live loads for which each floor system, or part of the floor system where the load capacity is not uniform throughout, has been designed shall be clearly marked on floor plans of structural working drawings.

1.5 POSTING OF FLOOR CAPACITIES. Where a floor or part of a floor of a building has been designed in accordance with this standard to sustain a uniformly distributed live load exceeding 5 kPa, a notice in the form shown hereunder and indicating the actual loadings for which the floor has been structurally designed shall be conspicuously and permanently posted in a position adjacent to such floor or such part of a floor.

DESIGNED FLOOR LOADING

Distributed . . . . . kilograms per square metre

Concentrated . . . . . kilograms

The lettering of such notice shall be embossed or cast into a metal tablet not less than 225 mm square and located not less than 1 m above floor level.