

Loading for buildings —

Part 1: Code of practice for dead and imposed loads

ICS 91.040

Committees responsible for this British Standard

The preparation of this British Standard was entrusted by Technical Committee B/525, Building and civil engineering structures, to Subcommittee B/525/1, Actions (loadings) and basis of design, upon which the following bodies were represented:

- British Constructional Steelwork Association Ltd.
- British Iron and Steel Producers Association
- British Masonry Society
- Concrete Society
- Department of the Environment (Building Research Establishment)
- Department of the Environment (Property and Buildings Directorate)
- Department of Transport (Highways Agency)
- Institution of Structural Engineers
- National House-building Council
- Royal Institute of British Architects
- Steel Construction Institute
- Co-opted members

This British Standard, having been prepared under the direction of the Sector Board for Building and Civil Engineering, was published under the authority of the Standards Board and comes into effect on 15 September 1996

© BSI 11 October 2002

First published February 1984
Second edition September 1996

The following BSI references relate to the work on this standard:
Committee reference B/525/1
Draft for comment 95/100935 DC

ISBN 0 580 26239 1

Amendments issued since publication

Amd. No.	Date	Comments
13669	11 October 2002	See national foreword

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Foreword

This Part of BS 6399 has been prepared by Subcommittee B/525/1, Actions (loadings) and basis of design. It supersedes BS 6399-1:1984, which is withdrawn.

This edition of BS 6399-1, introduces technical changes, but it does not reflect a full revision of the standard which will be undertaken in due course.

The start and finish of text introduced or altered by Amendment No. 1 is indicated in the text by tags **A1** **A1**.

The principal change in this edition is the presentation of the imposed floor loads according to the type of activity/occupancy, rather than occupancy class as introduced in the 1984 edition. The weights of movable partitions which were redefined as imposed loads in the 1984 edition, retain their classification. The reductions in floor load with number of storeys and with area have also been clarified.

Table 1 and Table 4 have been revised by amendment to limit the guidance to types of buildings and structures appropriate to the scope of this standard. Consequently, loading information relevant to grandstands and designated stadia had been removed and reference is made to the requirements of the appropriate certifying authorities.

Clause 9, on dynamic loading, has been deleted and an amended version of the clause has been introduced as an informative Annex A. This was necessary in order to limit the guidance given in this standard to the types of buildings and structures covered in the scope of this Part of BS 6399 but at the same time provide references to specialist guidance for the design of structures susceptible to dynamic excitation. The deletion of Clause 9 has led to the removal of the normative Annex A on dynamic loads for dancing and jumping. That annex was intended to provide a rigorous approach to the evaluation of dynamic loading, which could only be applied in conjunction with specialist guidance, which is undergoing further development.

Clause 10 has been revised to give new recommendations for vertical loading on parapets, barriers and balustrades.

The basis of the loadings is historical and they agree, subject to comparatively minor variations, with international consensus of opinion.

The data on wind loads are given in BS 6399-2 and data on imposed roof loads are given in BS 6399-3.

In this edition of BS 6399-1, numerical values have been given in terms of SI units, details of which are to be found in BS 5555. Those concerned with the conversion and renovation of older buildings designed in terms of imperial units may find it useful to note that 1 N = 0.225 lbf and 1 kN/m² = 20.89 lbf/ft².

A British Standard does not purport to include all the necessary provisions of a contract. Users of British Standards are responsible for their correct application.

Compliance with a British Standard does not of itself confer immunity from legal obligations.

Summary of pages

This document comprises a front cover, an inside front cover, pages i and ii, pages 1 to 11 and a back cover.

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1 Scope

1.1 This Part of BS 6399 gives dead and minimum recommended imposed loads for use in designing buildings. It applies to:

- a) new buildings and new structures;
- b) alterations and additions to existing buildings and existing structures;
- c) existing construction on change of use.

It does not apply to the maintenance of, or the replacement of parts of, existing buildings and structures where there is no change of use.

1.2 This code of practice does **A1** not give recommendations for **A1**:

- a) loads on road and rail bridges, as these are dealt with in other British Standards, e.g. BS 5400;
- b) wind loads (see BS 6399-2);
- c) imposed roof loads (see BS 6399-3);
- d) snow loads (see BS 6399-3);
- e) loads on structures subject to internal pressures from their contents (e.g. bunkers, silos and water tanks), which have to be calculated individually;
- f) **A1** loads on buildings and structures susceptible to dynamic excitation;

NOTE General guidance is given in Clause 5, Note 1, Note 2 and Note 3. **A1**

- g) loads due to lifts (see BS 2655);
- h) loads incidental to construction;
- i) test loads;
- j) loads for crane gantry girders (see BS 2573).

A1 k) loads on grandstands and stadia

NOTE General guidance is given in Table 1, Note 4. **A1**

2 References

2.1 Normative references

This Part of BS 6399 incorporates, by dated or undated reference, provisions from other publications. These normative references are made at the appropriate places in the text and the cited publications are listed on the inside back cover. For dated references, only the edition cited applies, any subsequent amendments to or revisions of the cited publication apply to this Part of BS 6399 only when incorporated in the reference by amendment or revision. For undated references, the latest edition of the cited publication applies, together with any amendments.

2.2 Informative references

This Part of BS 6399 refers to other publications that provide information or guidance. Editions of these publications current at the time of issue of this standard are listed on the inside back cover, but reference should be made to the latest editions.

3 Definitions

For the purposes of this code of practice the following definitions apply.

3.1

dead load

the load due to the weight of all walls, permanent partitions, floors, roofs, finishes and all other permanent construction including services of a permanent nature

3.2

imposed load

the load assumed to be produced by the intended occupancy or use, including the weight of movable partitions, distributed, concentrated, impact and inertia, loads, but excluding wind loads