

ISBN 978-0-626-27630-0

SANS 10400-B:2012

Edition 3

SOUTH AFRICAN NATIONAL STANDARD

The application of the National Building Regulations

Part B: Structural design

Published by SABS Standards Division
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SANS 10400-B:2012
Edition 3

Table of changes

Change No.	Date	Scope

Acknowledgement

The SABS Standards Division wishes to acknowledge the work of the South African Institution of Civil Engineering, Agrément South Africa and the National Home Builders Registration Council's Technical Advisory Committee in reinterpreting functional regulations relating to structural performance.

Foreword

This South African standard was approved by National Committee SABS SC 59I, *Construction standards – Basis for the design of structures*, in accordance with procedures of the SABS Standards Division, in compliance with annex 3 of the WTO/TBT agreement.

This document was published in August 2012.

This document supersedes the corresponding parts of SABS 0400:1990 (first revision).

Compliance with the requirements of this document will be deemed to be compliance with the requirements of part B of the National Building Regulations, issued in terms of the National Building Regulations and Building Standards Act, 1977 (Act No. 103 of 1977).

SANS 10400 consists of the following parts, under the general title *The application of the National Building Regulations*:

Part A: General principles and requirements.

Part B: Structural design.

Part C: Dimensions.

Part D: Public safety.

Part F: Site operations.

Part G: Excavations.

Part H: Foundations.

Part J: Floors.

Part K: Walls.

Part L: Roofs.

Part M: Stairways.

Part N: Glazing.

Foreword *(concluded)*

Part O: Lighting and ventilation.

Part P: Drainage.

Part Q: Non-water-borne means of sanitary disposal.

Part R: Stormwater disposal.

Part S: Facilities for persons with disabilities.

Part T: Fire protection.

Part V: Space heating.

Part W: Fire installation.

Part X: Environmental sustainability.

Part XA: Energy usage in buildings.

This document should be read in conjunction with SANS 10400-A.

Annex B forms an integral part of this document. Annexes A and C are for information only.

SANS 10400-B:2012

Edition 3

Contents

	Page
Acknowledgement	
Foreword	
1 Scope	3
2 Normative references	3
3 Definitions	4
4 Requirements	9
4.1 General	9
4.2 Rational design and rational assessment	11
4.3 Agrément certification	20
4.4 Buildings in dolomite land	20
Annex A (informative) Condensation	21
Annex B (normative) Performance tests pertaining to structural safety, serviceability and durability	23
Annex C (informative) The design of masonry walls to satisfy serviceability criteria	29
Bibliography	35

The application of the National Building Regulations

Part B: Structural design

1 Scope

This part of SANS 10400 provides deemed-to-satisfy requirements for compliance with part B (Structural Design) of the National Building Regulations.

2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies. Information on currently valid national and international standards can be obtained from the SABS Standards Division.

SANS 1936-1:2012, *Development of dolomite land – Part 1: General principles and requirements.*

SANS 1936-2, *Development of dolomite land – Part 2: Geotechnical investigations and determinations.*

SANS 1936-3, *Development of dolomite land – Part 3: Design and construction of buildings, structures and infrastructure.*

SANS 1936-4, *Development of dolomite land – Part 4: Risk management.*

SANS 2001-CM1, *Construction works – Part CM1: Masonry walling.*

SANS 2394/ISO 2394, *General principles on reliability for structures.*

SANS 10082, *Timber frame buildings.*

SANS 10100-1 (SABS 0100-1), *The structural use of concrete – Part 1: Design.*

SANS 10100-2 (SABS 0100-2), *The structural use of concrete – Part 2: Materials and execution of work.*

SANS 10104 (SABS 0104), *Handrailing and balustrading (safety aspects).*

SANS 10160 (all parts), *Basis of structural design and actions for buildings and industrial structures.*

SANS 10162-1, *The structural use of steel – Part 1: Limit-states design of hot-rolled steelwork.*

SANS 10162-2, *The structural use of steel – Part 2: Cold-formed steel structures.*