

ISBN 978-0-626-24062-2

SANS 10400-P:2010

Edition 3

SOUTH AFRICAN NATIONAL STANDARD

The application of the National Building Regulations

Part P: Drainage

Published by SABS Standards Division
1 Dr Lategan Road Groenkloof ☒ Private Bag X191 Pretoria 0001
Tel: +27 12 428 7911 Fax: +27 12 344 1568
www.sabs.co.za
© SABS

SABS

SANS 10400-P:2010
Edition 3

| Table of changes | | |
|------------------|------|-------|
| Change No. | Date | Scope |
| | | |

Acknowledgement

The SABS Standards Division wishes to acknowledge the work of the National Home Builders Registration Council's Technical Advisory Committee and the South African Institution of Civil Engineering in interpreting functional regulations relating to drainage.

Foreword

This South African standard was approved by National Committee SABS SC 138F, *Water and sanitation – Equipment and systems – Drainage*, in accordance with procedures of the SABS Standards Division, in compliance with annex 3 of the WTO/TBT agreement.

This document was published in October 2010.

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 P 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.

Part O: Lighting and ventilation.

Foreword *(concluded)*

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.

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

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

SANS 10400-P:2010

Edition 3

Contents

| | Page |
|---|-----------|
| Acknowledgement | |
| Foreword | |
| 1 Scope | 3 |
| 2 Normative references | 3 |
| 3 Definitions | 4 |
| 4 Requirements | 12 |
| 4.1 General | 12 |
| 4.2 Materials, pipes, fittings and joints | 13 |
| 4.3 Sanitary fixtures | 13 |
| 4.4 Toilet pans | 14 |
| 4.5 Urinals | 14 |
| 4.6 Connectors for toilet pans | 15 |
| 4.7 Sewage lifts | 16 |
| 4.8 Conservancy tanks, septic tanks and french drains | 16 |
| 4.9 Discharges from washing areas | 26 |
| 4.10 Discharges from swimming baths, swimming pools, fountains or reservoirs | 28 |
| 4.11 Provision of sanitary fixtures | 28 |
| 4.12 Hydraulic loading of drainage installations | 33 |
| 4.13 Drainage systems | 34 |
| 4.14 Sizing of discharge pipes | 38 |
| 4.15 Sizing of drains | 39 |
| 4.16 Protection of water seals | 40 |
| 4.17 Sizing of ventilating pipes | 42 |
| 4.18 Installation of discharge pipes and ventilating pipes | 43 |
| 4.19 Access to the drainage installation | 45 |
| 4.20 Provision of traps | 46 |
| 4.21 Provision of gullies | 47 |
| 4.22 Installation of drains | 49 |
| 4.23 Common drains | 50 |
| 4.24 Grease interceptors | 50 |
| 4.25 In-situ percolation test for soils | 50 |
| 4.26 Test for drains | 51 |
| 4.27 Test for discharge pipes and ventilating pipes | 51 |
| Annex A (normative) National Building Regulations – Part P: Drainage | 52 |
| Annex B (informative) Performance requirements for sanitation systems | 56 |
| Annex C (normative) The sizing of septic tanks | 57 |
| Bibliography | 60 |

The application of the National Building Regulations

Part P: Drainage

1 Scope

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

NOTE Part P of the National Building Regulations, issued in terms of the National Building Regulations and Building Standards Act, 1977 (Act No. 103 of 1977), is reproduced in annex A.

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.

ISO 9896:1996, *Plastics traps for discharge pipework systems inside buildings*.

SANS 497, *Glazed ceramic sanitaryware*.

SANS 1024, *Welded steel fabric for reinforcement of concrete*.

SANS 1200 DB (SABS 1200 DB), *Standardized specification for civil engineering construction – Section DB: Earthworks (pipe trenches)*.

SANS 1200 LB (SABS 1200 LB), *Standardized specification for civil engineering construction – Section LB: Bedding (pipes)*.

SANS 1200 LD (SABS 1200 LD), *Standardized specification for civil engineering construction – Section LD: Sewers*.

SANS 1321-1, *Non-metallic waste traps – Part 1: Plastics waste traps*.

SANS 1321-2, *Non-metallic waste traps – Part 2: Rubber waste traps*.

SANS 2001-CC1, *Construction works – Part CC1: Concrete works (structural)*.

SANS 2001-CC2, *Construction works – Part CC2: Concrete works (minor works)*.

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