

UDC 624(083.75)
ICS 93;01.120

SABS 1200 DK:1996
First revision

SOUTH AFRICAN BUREAU OF STANDARDS

STANDARDIZED SPECIFICATION

for

CIVIL ENGINEERING CONSTRUCTION

DK : GABIONS AND PITCHING

Approved by the

President of the
South African
Bureau of Standards
on 24 June 1996

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Published and printed in the Republic of South Africa by the
South African Bureau of Standards

ISBN 0-626-10826-8

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First revision 24 June 1996
This specification supersedes
SABS 1200 DK:1984

Civil Engineering Construction - DK: Gabions and pitching

1 Scope

This specification covers the construction of gabions and stone pitching for the protection of earthworks against erosion. It covers gabion walls and aprons used as retaining walls, channel linings, and the like and it covers light to heavy pitching, with and without mortar.

NOTE – The standards referred to in the specification are listed in appendix A.

2 Interpretations

2.1 Supporting specifications

2.1.1 Where this specification is required for a project, the following specifications shall, *inter alia*, form part of the contract document (NOTE – Items (b) and (c) below may or need not be bound in the document):

- a) Project specification;
- b) SABS 1200 A or SABS 1200 AA or SABS 1200 AD, as applicable; and
- c) SABS 1200 D or SABS 1200 DA, as applicable.

2.1.2 In addition to the specifications referred to in 2.1.1, one or more of the following specifications might be required for the project:

- a) SABS 1200 C;
- b) SABS 1200 DE;
- c) SABS 1200 DM;
- d) SABS 1200 DN; and
- e) SABS 1200 G or SABS 1200 GA, as applicable.

2.2 Application

This specification contains clauses that are generally applicable to the construction of gabions and pitching. Interpretations and variations of the specification are set out in portion 2 of the project specification (see 2.1).

2.3 Definitions

For the purposes of this specification the definitions and abbreviations given in the applicable of the specifications listed in 2.1 and the following definitions shall apply:

2.3.1 Box: A gabion generally of depth 0,3 m to 1,0 m, of width 1,0 m, and of length 2 m to 4 m.

2.3.2 Diaphragm: An internal division of a gabion cage that is attached to the bottom, the sides, and, after the gabion cage is packed with stones, the lid of the cage.

2.3.3 Gabion: A cage of galvanized steel wire mesh (with or without PVC coating) that is packed with stones and is used in material retaining structures and in various situations to counter erosion. (A gabion can be in the form of a box or a mattress, depending on its dimensions.)

2.3.4 Gabion cage: An unfilled gabion.

2.3.5 Geomembrane: A sheet material that is highly impermeable to water and typically has an hydraulic conductivity of 1×10^{-14} m/s to 1×10^{-13} m/s.

2.3.6 Geotextile: A material in the form of a sheet, a blanket or a net that is permeable to water and typically has an hydraulic conductivity of 1×10^{-5} m/s to 1 m/s.

2.3.7 Mattress: A gabion generally of depth up to 0,5 m, of width 1,0 m or 2,0 m, and of length up to 6,0 m.

2.3.8 Pitching: Large stones placed systematically on a trimmed earth surface, to counter erosion.

2.3.9 Selvedge/selvage: A boundary or edge for the panels of a gabion cage that is intended to strengthen and facilitate connections between panels.