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Edition 2.1

Any reference to SABS 1411-1 is deemed
to be a reference to this standard
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SOUTH AFRICAN NATIONAL STANDARD

Materials of insulated electric cables and flexible cords

Part 1: Conductors

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Table of changes

Change No.	Date	Scope
Amdt 1	2008	Amended to change the designation of SABS standards to SANS standards with no technical changes.

Foreword

This South African standard was approved by National Committee StanSA TC 66, *Electric cables*, in accordance with procedures of Standards South Africa, in compliance with annex 3 of the WTO/TBT agreement.

This document was published in January 2008.

This document supersedes SABS 1411-1:2001 (edition 2).

SANS 1411 consists of the following parts, under the general title *Materials of insulated electric cables and flexible cords*:

Part 1 – Conductors.

Part 2 – Polyvinyl chloride (PVC).

Part 3 – Elastomers.

Part 4 – Cross-linked polyethylene (XLPE).

Part 5 – Halogen-free, flame-retardant materials.

Part 6 – Armour.

Part 7 – Polyethylene (PE).

Annexes A and B are for information only.

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Materials of insulated electric cables and flexible cords

Part 1: Conductors

1 Scope

This part of SANS 1411 specifies requirements for copper and aluminium conductors used in insulated electric cables and flexible cords.

It covers solid, stranded and flexible circular conductors, and solid and stranded shaped conductors of the sizes included in various specifications for insulated electric cables and flexible cords published by Standards South Africa.

It does not cover bare conductors for overhead transmission lines, conductors for telecommunication or radio-frequency cables or conductors used as the supporting core in aerial bundled conductor systems.

NOTE As this part of SANS 1411 covers only the conductor(s) of a finished cable or flexible cord, the quality evaluation of such conductor(s) will form part of the quality evaluation of any consignment or lot of cable or cord. Any sampling plans and criteria for compliance given in a standard that covers the cables or cords will, therefore, apply to inspections and tests carried out in terms of this part of SANS 1411.

2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this part of SANS 1411. All standards are subject to revision and, since any reference to a standard is deemed to be a reference to the latest edition of that standard, parties to agreements based on this part of SANS 1411 are encouraged to take steps to ensure the use of the most recent editions of the standards indicated below. Information on currently valid national and international standards can be obtained from Standards South Africa.

ASTM B 298, *Standard specification for silver-coated soft or annealed copper wire.*

ASTM B 355, *Standard specification for nickel-coated soft or annealed copper wire.*

SANS 6282-1, *Test methods for bare conductors and conductors of insulated electric cables – Part 1: Conductor resistance.*

SANS 6282-2, *Test methods for bare conductors and conductors of insulated electric cables – Part 2: Quality of metallic coatings.*

SANS 6282-3, *Test methods for bare conductors and conductors of insulated electric cables – Part 3: Mechanical tests.*