

INTERNATIONAL STANDARD

**Rubber insulated cables - Rated voltages up to and including 450/750 V -
Part 1: General requirements**

CONTENTS

FOREWORD	3
1 Scope	5
2 Normative references	5
3 Terms and definitions	6
4 Marking	7
4.1 Indication of origin and cable identification	7
4.1.1 General	7
4.1.2 Continuity of marks	7
4.2 Durability	7
4.3 Legibility	7
5 Core identification	8
5.1 General	8
5.2 Core identification by colours	8
5.2.1 General requirements	8
5.2.2 Colour scheme	8
5.2.3 Colour combination green-and-yellow	8
5.3 Core identification by numbers	9
5.3.1 General requirements	9
5.3.2 Requirements for marking arrangements	9
5.3.3 Durability	9
6 General requirements for the construction of cables	9
6.1 Conductors	9
6.1.1 Material	9
6.1.2 Construction	10
6.1.3 Separator between conductor and insulation	10
6.1.4 Check on construction	10
6.1.5 Electrical resistance	10
6.2 Insulation	10
6.2.1 Material	10
6.2.2 Application to the conductor	10
6.2.3 Thickness	11
6.2.4 Mechanical properties before and after ageing	11
6.3 Filler	13
6.3.1 Material	13
6.3.2 Application	13
6.4 Textile braid	13
6.4.1 Material	13
6.4.2 Application	13
6.5 Sheath	13
6.5.1 Material	13
6.5.2 Application	14
6.5.3 Thickness	16
6.5.4 Mechanical properties before and after ageing	16
6.6 Tests on completed cables	16
6.6.1 Electrical properties	16
6.6.2 Overall dimensions	16

6.6.3	Mechanical strength of flexible cables	16
7	Guidance on use of the cables.....	20
Annex A (normative)	Code designation	21
Annex B (normative)	Calculation method for determination of the thickness of sheath of cable types 60245 IEC 53, 60245 IEC 57 and 60245 IEC 66 of IEC 60245-4.....	22
B.1	General.....	22
B.2	Formulae for the calculation	22
B.3	Rounding off of numbers for the calculation of the thickness of sheath.....	23
Figure 1	– Arrangement of marking by numbers	9
Table 1	– Requirements for non-electrical tests for cross-linked rubber insulation.....	11
Table 2	– Requirements for non-electrical tests for cross-linked rubber sheath	14
Table 3	– Requirements for electrical tests for cross-linked rubber insulated cables	17
Table 4	– Mass of weight and diameter of pulleys	18
Table 5	– Current loading	19
Table 6	– Requirements for the static flexibility test for arc-welding electrode cables	19
Table B.1	– Fictitious diameter per nominal cross-sectional area	23
Table B.2	– Assembly coefficient k for cables having no more than five cores.....	23

INTERNATIONAL ELECTROTECHNICAL COMMISSION

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FOREWORD

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IEC 60245-1 has been prepared by IEC technical committee TC 20: Electric cables. It is an International Standard.

This fifth edition cancels and replaces the fourth edition published in 2003, and Amendment 1:2007. This edition constitutes a technical revision.

This edition includes the following significant technical changes with respect to the previous edition:

- a) reference to IEC 60245-2 for the tests has been deleted and replaced by IEC 63294;
- b) reference to lift cable according to IEC 60245-5 has been deleted;
- c) normative references have been updated.

The text of this International Standard is based on the following documents:

Draft	Report on voting
20/2271/FDIS	20/2280/RVD

Full information on the voting for its approval can be found in the report on voting indicated in the above table.

The language used for the development of this International Standard is English.

This document was drafted in accordance with ISO/IEC Directives, Part 2, and developed in accordance with ISO/IEC Directives, Part 1 and ISO/IEC Directives, IEC Supplement, available at www.iec.ch/members_experts/refdocs. The main document types developed by IEC are described in greater detail at www.iec.ch/publications.

A list of all the parts in the IEC 60245 series, published under the general title *Rubber insulated cables - Rated voltages up to and including 450/750 V*, can be found on the IEC website.

The committee has decided that the contents of this document will remain unchanged until the stability date indicated on the IEC website under webstore.iec.ch in the data related to the specific document. At this date, the document will be

- reconfirmed,
- withdrawn, or
- revised.

1 Scope

This part of IEC 60245 applies to rigid and flexible cables with insulation, and sheath if any, based on vulcanized rubber of rated voltages U_o/U up to and including 450/750 V used in power installations of nominal voltage not exceeding 450/750 V AC.

Particular types of cables are specified in IEC 60245-3, IEC 60245-4, IEC 60245-6, IEC 60245-7, IEC 60245-8. The code designations of these types of cables are provided in Annex A of this document.

The test methods specified in Part 1 to Part 8 of the IEC 60245 series are given in IEC 63294 and in the relevant parts of IEC 60811.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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.

IEC 60228, *Conductors of insulated cables*

IEC 60245-3, *Rubber insulated cables - Rated voltages up to and including 450/750 V - Part 3: Heat resistant silicone insulated cables*

IEC 60245-4, *Rubber insulated cables - Rated voltages up to and including 450/750 V - Part 4: Cords and flexible cables*

IEC 60245-6, *Rubber insulated cables - Rated voltages up to and including 450/750 V - Part 6: Arc welding electrode cables*

IEC 60245-7, *Rubber insulated cables - Rated voltages up to and including 450/750 V - Part 7: Heat resistant ethylene-vinyl-acetate rubber insulated cables*

IEC 60245-8, *Rubber insulated cables - Rated voltages up to and including 450/750 V - Part 8: Cords for applications requiring high flexibility*

IEC 60811-401, *Electric and optical fibre cables - Test methods for non-metallic materials - Part 401: Miscellaneous tests - Thermal ageing methods - Ageing in an air oven*

IEC 60811-403, *Electric and optical fibre cables - Test methods for non-metallic materials - Miscellaneous tests - Ozone resistance test on cross-linked compounds*

IEC 60811-404, *Electric and optical fibre cables - Test methods for non-metallic materials - Miscellaneous tests - Mineral oil immersion tests for sheaths*

IEC 60811-412, *Electric and optical fibre cables - Test methods for non-metallic materials - Part 412: Miscellaneous tests - Thermal ageing methods - Ageing in an air bomb*

IEC 60811-501, *Electric and optical fibre cables - Test methods for non-metallic materials - Mechanical tests - Tests for determining the mechanical properties of insulating and sheathing compounds*

IEC 60811-504, *Electric and optical fibre cables - Test methods for non-metallic materials - Mechanical tests - Bending tests at low temperature for insulation and sheaths*