IEC 60229

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INTERNATIONAL STANDARD

NORME INTERNATIONALE

Electric cables – Tests on extruded oversheaths with a special protective function

Câbles électriques – Essais sur les gaines extérieures extrudées avec fonction spéciale de protection

IEC 60229:2007

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ELECTRIC CABLES – TESTS ON EXTRUDED OVERSHEATHS WITH A SPECIAL PROTECTIVE FUNCTION

FOREWORD

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International Standard IEC 60229 has been prepared by IEC technical committee 20: Electric cables.

This third edition cancels and replaces the second edition published in 1982 and constitutes a technical revision.

The significant technical changes with respect to the previous edition are as follows:

– The text has been modified in order to consider the function of the oversheath, irrespective of the way the metallic sheath or screen of the cable is earthed because, in some cases, the oversheath is designed to act not only as a protection against corrosion, but also to reduce the risk of degradation of the cable insulation system. This requirement may be independent of the nature of the insulation and independent of the rated voltage of the cable.
– More precise wording has been introduced regarding the application of some tests (if the sheaths or foils are bonded to the oversheath or not).
– The test requirements have been revised in order to be in line with the standards published after the second edition.

– The pressure test at high temperature has been deleted as the requirement is specified in the relevant cable standards.

– A “Guidance on tests after installation” (Annex B) has been included.

The text of this standard is based on the following documents:

FDIS	Report on voting
20/901/FDIS	20/908/RVD

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

This publication has been drafted in accordance with the ISO/IEC Directives, Part 2.

The committee has decided that the contents of this publication will remain unchanged until the maintenance result date indicated on the IEC web site under "http://webstore.iec.ch" in the data related to the specific publication. At this date, the publication will be

- reconfirmed,
- withdrawn,
- replaced by a revised edition, or
- amended.

ELECTRIC CABLES – TESTS ON EXTRUDED OVERSHEATHS WITH A SPECIAL PROTECTIVE FUNCTION

1 Scope

This International Standard provides a range of tests which may be required for electric cables which have an extruded oversheath and where that oversheath performs a special protective function.

NOTE 1 The need for the special functions may be independent of the nature of the insulation type or independent of the rated voltage of the cable.

The standard covers cables for use in insulated systems and in uninsulated systems.

The tests are categorized for use as

a) routine tests,

b) type tests,

c) tests after installation.

These tests comprise:

– electrical routine tests on cable oversheath used in insulated or uninsulated systems,

– abrasion and corrosion spread type tests,

– electrical test on cable oversheath after installation.

Routine tests and tests after installation, as specified in the relevant cable standards, are applicable for all situations.

Type tests depend upon the nature of the system and the construction of the cable and do not have to be carried out for normal conditions of use.

The application of the abrasion test is given in Annex A.

NOTE 2 Guidance on tests after installation is given in Annex B.

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.

IEC 60230, *Impulse tests on cables and their accessories*

IEC 62230*, Electric cables – Spark test method*

3 Routine tests

The electrical integrity of the oversheath shall be tested using either a d.c. voltage test (3.1) or a spark test (3.2).