

Australian/New Zealand Standard™

Accessories for electric cables—Test requirements

Part 2: Impregnated paper-insulated metal-sheathed cables for rated voltages from 1.9/3.3 (3.6) kV up to and including 19/33 (36) kV (excluding gas-pressure and oil-filled cables)

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AS/NZS 4805.2:2007

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Australian Electrical and Electronic Manufacturers Association
Australian Industry Group
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Department of Primary Industries, Mine Safety, NSW
Electrical Contractors Association of New Zealand
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OF

AS/NZS 4805.2:2007

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PREFACE

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee EL-003, Electric Wires and Cables to supersede AS/NZS 4805.2:2003.

The objective of this Standard is to specify the type test requirements on accessories for impregnated paper-insulated metal-sheathed cables with rated voltages from 1.9/3.3 (3.6) kV up to and including 19/33 (36) kV (excluding gas-pressure and oil-filled cables).

This Standard is published in two parts. These are:

AS/NZS

- 4805 Accessories for electric cables—Test requirements
- 4805.1 Part 1: Power cables with extruded insulation for rated voltages from 1.9/3.3 (3.6) kV up to and including 19/33 (36) kV
- 4805.2 Part 2: Impregnated paper-insulated metal-sheathed cables for rated voltages from 1.9/3.3 (3.6) kV up to and including 19/33 (36) kV (excluding gas-pressure and oil-filled cables) (this Standard)

In the preparation of these Standards IEC 60502-4, *Power cable with extruded insulation and their accessories for rated voltages from 1 kV ($U_m = 1,2$ kV) up to 30 kV ($U_m = 36$ kV) Part 4: Test requirements on accessories for cables with rated voltages from 6 kV ($U_m = 7,2$ kV) up to 30 kV ($U_m = 36$ kV), and IEC 60055-1, *Paper-insulated metal-sheathed cables for rated voltages up to 18/30 kV (with copper or aluminium conductors and excluding gas-pressure and oil-filled cables) Part 1: Tests on cables and their accessories* were considered.*

The structure of these IEC Standards did not lend themselves to straight adoption so the production of a two part Australian/New Zealand Standard was considered appropriate.

The first part of AS/NZS 4805 adopts the content of IEC 60502-4. This second part adopts only part of the content of IEC 60055-1. This IEC Standard covers tests on cables as well as accessories.

This edition differs from the previous edition in the following significant ways:

- (a) Definitions have been provided for tracking and erosion.
- (b) A requirement for the identification of dimensions of phase-to-phase and phase-to-earth separations for testing of terminations has been included.
- (c) A more detailed definition of substantial damage following the humidity and salt fog tests has been provided.
- (d) All test methods, except the hydraulic pressure test, have been referenced to IEC 60442.

The term 'normative' has been used in this Standard to define the application of an appendix to which it applies. A normative appendix is an integral part of a Standard.

Statements expressed in mandatory terms in notes and footnotes to tables and figures are deemed to be requirements of this Standard.

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SECTION 1 SCOPE AND GENERAL

1.1 SCOPE

This Standard specifies the requirements for type testing of accessories for impregnated paper-insulated metal-sheathed cables with rated voltages from 1.9/3.3 (3.6) kV up to 19/33 (36) kV, complying with AS/NZS 1026 or IEC 60055-1.

The accessories covered by this Standard are listed below:

- (a) Indoor and outdoor terminations of all designs, including those designed for installations in terminal boxes.
- (b) Straight joints and branch joints of all designs, suitable for use underground or in air.
- (c) Transition joints connecting paper-insulated cables to cables with extruded insulation.

Accessories for particular cables, such as submarine cables, are not included.

The requirements of the appropriate tests are contained within Section 4. These type tests shall apply only to new designs of accessories.

1.2 REFERENCED DOCUMENTS

The following documents are referred to in this Standard:

AS/NZS

- | | |
|--------|--|
| 1026 | Electric cables—Impregnated paper insulated—For working voltages up to and including 19/33 (36) kV |
| 4325 | Compression and mechanical connectors for power cables with copper or aluminium conductors |
| 4325.1 | Part 1: Test methods and requirements |

IEC

- | | |
|-----------|--|
| 60050 | International Electrotechnical Vocabulary (IEV) |
| 60050-461 | Part 461: Electric cables |
| 60055 | Paper-insulated metal-sheathed cables for rated voltages up to 18/30 kV (with copper or aluminium conductors and excluding gas-pressure and oil-filled cables) |
| 60055-1 | Part 1: Tests on cables and their accessories |
| 60183 | Guide to the selection of high-voltage cables |