

STANDARDS AUSTRALIA

Amendment No. 1
to
AS 3999:2015
Bulk thermal insulation—Installation

REVISED TEXT

The 2015 edition of AS 3999 is amended as follows; the amendments should be inserted in the appropriate places.

SUMMARY: This Amendment applies to Clauses 1.3, 1.4.15, 1.4.22, 1.4.28 (new), 1.4.29 (new), 1.4.30 (new), 1.4.31 (new) and 1.4.32 (new), 2.3, 2.6.1.4, 2.6.2, 4.3(c), 4.6 (new) and 5.4.3.1, Figures 2.6.1.3 and 2.6.1.4, and Appendices A, B and C.

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Clause 1.3

- 1 *Add* the following entries at the end of the AS/NZS listing:
 - 6059 Luminaires
 - 60598.1 Part 1: General requirements and test
 - 60598.2.2 Part 2.2: Particular requirements – Recessed luminaires
- 2 *Delete* the following entry from the AS listing:
 - 1319 Safety signs for the occupational environment

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Clause 1.4.15

Delete text and *replace* with the following:

An electrical circuit protected by an approved safety switch (RCD).

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Clause 1.4.22

Delete text after the first sentence [including Items (a) to (f)].

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Clause 1.4.28 (new), 1.4.29 (new), 1.4.30 (new), 1.4.31 (new) and 1.4.32 (new)

Add the following new clauses after Clause 1.4.27 (1.4.28, 1.4.29, 1.4.30, 1.4.31 and 1.4.32):

1.4.28 Residual current device (RCD)

A device intended to isolate supply to protected circuits, socket-outlets or electrical equipment in the event of a current flow to earth that exceeds a predetermined value.

[SOURCE: AS/NZS 3000]

1.4.29 Non-IC luminaire

A recessed luminaire that cannot be abutted against or covered by normally flammable materials or used in installations where building insulation or debris is, or may be, present in normal use.

NOTE: This classification is not suitable for residential installations.

[SOURCE: AS/NZS 60598.2.2:2016]

1.4.30 CA90 luminaire

A recessed luminaire that can be abutted against normally flammable materials, including building insulation, but cannot be covered in normal use. Building elements, building insulation or debris have limited access to the heated parts of the luminaire.

[SOURCE: AS/NZS 60598.2.2:2016]

1.4.31 IC luminaire

A recessed luminaire that can be abutted against normally flammable materials, including building insulation, and can be covered in normal use. Building elements, building insulation or debris have limited access to the heated parts of the luminaire.

[SOURCE: AS/NZS 60598.2.2:2016]

1.4.32 IC-4 luminaire

A recessed luminaire that can be abutted against normally flammable materials, including building insulation, and can be covered in normal use. Building elements, building insulation or debris have restricted access to the heated parts of the luminaire. This classification of recessed luminaire is effectively a sealed unit that has a restricted flow of air between the habitable room the luminaire emits light into and the void/space where the main body of the luminaire is located.

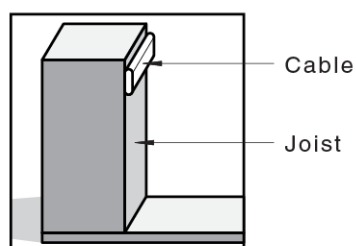
[SOURCE: AS/NZS 60598.2.2:2016]

Clause 2.3

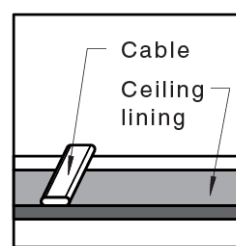
Item (a), *delete* '300 mm' and *replace* with '400 mm'.

Figure 2.6.1.2

Delete figure and *replace* with the following:



Cable running along the inside of a joist



Cable running across ceiling lining

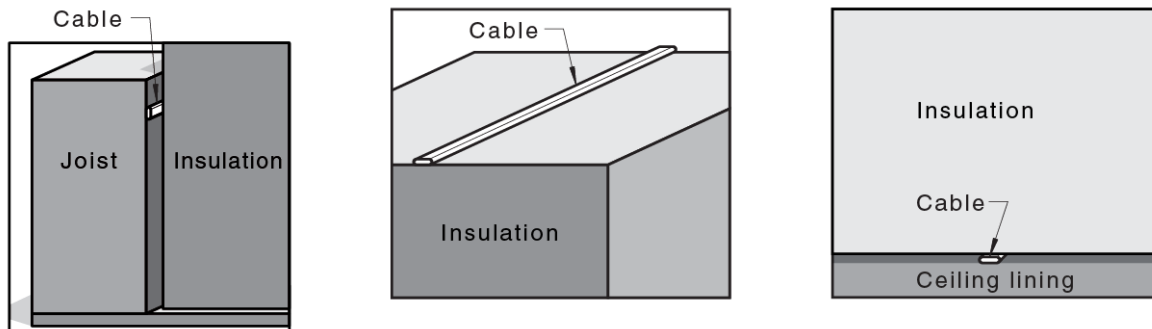
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Figure 2.6.1.3

Delete figure and *replace* with the following:



Cable running along the side of ceiling joist with the top of joist not covered in insulation

Cable running across the top of thermal insulation

Cable running across the top of a ceiling lining which is covered with thermal insulation

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Clause 2.6.1.4

Add the following to the end of the first sentence:

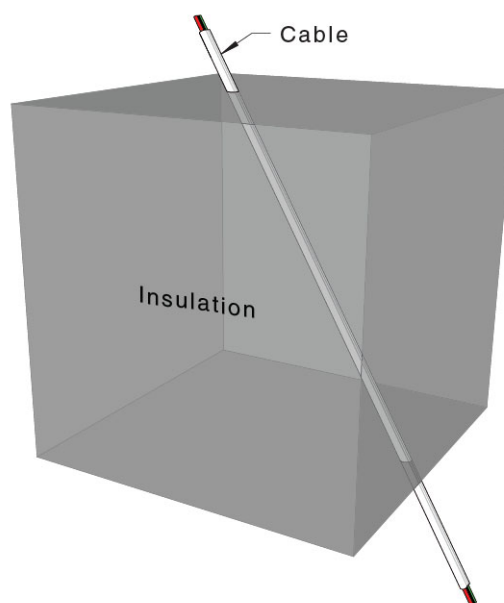
‘for a continuous length greater than 400 mm’.

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Figure 2.6.1.4

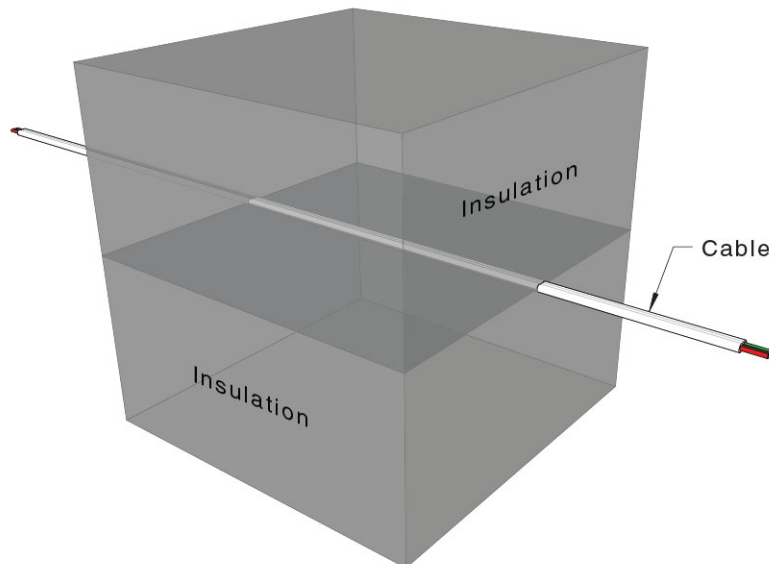
1 Illustration (a)

Delete illustration (a) and *replace* with the following:



2 Illustration (b)

Delete illustration (b) and replace with the following:



Clause 2.6.2

Delete clause, including the title, and replace with the following:

2.6.2 Insulation installation and electrical cables

2.6.2.1 General

This Clause (2.6.2) details the requirements for the installation of insulation in ceilings, walls (internal and external) and underfloor of new and existing premises.

NOTE: In the early nineties, the classification of the cables in thermal insulation was introduced into the Wiring Rules. The cables were rated as to how much of the cable was enclosed in thermal insulation; this included the distance that the cable was enclosed in thermal insulation and the number of sides in direct contact with the thermal insulation. Previous editions specified cable to be surrounded by no greater than 300 mm length.

A step change within domestic installation has occurred in line with the publication of the 2018 Wiring Rules.

Electrical cables have been installed within ceilings, walls (internal and external) and underfloor for many years. Originally the cables were installed and sized without the consideration of thermal insulation unless insulation was installed prior to the electrical cables being installed.

2.6.2.2 Dwellings not wired in accordance with AS 3000—1986 or subsequent editions

The installation of bulk insulation in spaces where electrical cables that do not comply with AS 3000—1986, or a subsequent edition, are present and where the bulk insulation would surround the cables for lengths of cable greater than 300 mm, either of the following alternatives shall apply, as appropriate:

- (a) The bulk thermal insulation shall be installed so that it does not surround electrical cables, either completely or partially.
- (b) A written statement from a licensed electrical contractor or electrical engineer qualified in electrical cabling shall be required, confirming the suitability of surrounding the electrical cables with bulk thermal insulation either completely or partially.

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