



Bulk thermal insulation—Installation



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The following are represented on Committee BD-058:

- Aluminium Foil Insulation Association
 - Australasian Fire and Emergency Service Authorities Council
 - Australian Building Codes Board
 - Australian Cellulose Insulation Manufacturers Association
 - Australian Professional Thermography Association
 - Community Energy Network
 - Consumers Federation of Australia
 - Council of Textile and Fashion Industries of Australia
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 - Pliable Membranes Association of Australia
 - Recessed Luminaire Enclosure Association of Australia
 - The Insulation Contractors Association of Australia, NSW
 - Thermal Insulation Contractors Association of Australia
-

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Standards Australia wishes to acknowledge the participation of the expert individuals that contributed to the development of this Standard through their representation on the Committee and through the public comment period.

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Australian Standard[®]

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PREFACE

This Standard was prepared by the Standards Australia Committee BD-058, Thermal Insulation, to supersede AS 3999—1992, *Thermal insulation of dwellings—Bulk insulation—Installation requirements*.

This Standard is an informative secondary reference in the Building Code of Australia by means of a guidance reference within AS/NZS 4859.1:2002, *Materials for the insulation of buildings, Part 1: General criteria and technical provisions*.

This Standard is primarily for domestic dwellings but many of the installation methods detailed could be applicable to other forms of construction. This Standard is intended to be used by the installers of bulk thermal insulation. In this edition, a new normative requirement has been introduced for the provision of an installer's statement that details the insulation type and materials used in the completed installation.

The terms 'normative' and 'informative' have been used in this standard to define application of the Appendix to which they apply. A 'normative Appendix is an integral part of a standard, whereas an 'informative' Appendix is only for information and guidance.

This Standard incorporates a commentary on some of the clauses. The commentary directly follows the relevant clause, is designated by 'C' preceding the clause number and is printed in italics in a box. The commentary is for information and guidance.

CONTENTS

	Page
FOREWORD.....	5
SECTION 1 SCOPE AND GENERAL	
1.1 SCOPE.....	6
1.2 APPLICATION	6
1.3 NORMATIVE REFERENCES	7
1.4 DEFINITIONS.....	8
1.5 ANCILLARY MATERIALS	10
SECTION 2 PRE-INSTALLATION INSPECTION AND PROCEDURES	
2.1 SCOPE OF SECTION	12
2.2 GENERAL.....	12
2.3 SPECIAL FEATURES	12
2.4 TREATMENT REQUIRED FOR SPECIAL FEATURES.....	12
2.5 CONDENSATION ASSESSMENT.....	13
2.6 ELECTRICAL CABLES AND ELECTRICAL EQUIPMENT.....	13
2.7 BUILT-IN APPLIANCES	16
2.8 CONTROL MEMBRANES.....	16
SECTION 3 GENERAL REQUIREMENTS FOR INSULATION INSTALLATION	
3.1 SCOPE OF SECTION	17
3.2 ENERGY EFFICIENCY.....	17
3.3 INSULATION INSTALLATION GUIDANCE AND RULES	20
3.4 GENERAL INSULATION METHOD.....	21
SECTION 4 SAFETY REQUIREMENTS FOR INSULATION INSTALLATION	
4.1 SCOPE OF SECTION	25
4.2 GENERAL SAFETY REQUIREMENTS	25
4.3 ELECTRICAL SAFETY	25
4.4 SAFETY REQUIREMENTS WHEN WORKING WITH INSULATION PRODUCTS	27
4.5 SAFETY REQUIREMENTS FOR CONCEALED STRUCTURAL MEMBERS (CEILINGS)	27
SECTION 5 THERMAL ENVELOPE DETAILED INSTALLATION METHODS	
5.1 SCOPE OF SECTION	28
5.2 INSTALLATION OF ROOF INSULATION.....	28
5.3 INSTALLATION OF CEILING INSULATION.....	38
5.4 INSTALLATION OF WALL INSULATION.....	52
5.5 INSTALLATION OF FLOOR INSULATION	64
SECTION 6 INSTALLATION STATEMENT.....	79

APPENDICES

A	RECESSED LUMINAIRES	80
B	RECESSED LUMINAIRES—ADDITIONAL GUIDANCE	82
C	RESISTANCE TO MOVEMENT TEST	84
D	INSTALLER’S STATEMENT	89
E	CEILING PERIMETER INSULATION	90
F	EDGE INSULATION SOLUTIONS	91
G	CONDENSATION	93
H	INSULATING TRUSSED CEILINGS	96
I	INSULATING UNDER CONCRETE SLAB ROOFS AND FLOORS	100
J	INSULATION RETRO-FIT AND REMEDIATION	102
K	ELECTRICALLY CONDUCTIVE BULK INSULATION.....	107
BIBLIOGRAPHY.....		108

FOREWORD

This Standard specifies the procedures for installing bulk thermal insulation in dwellings. The requirements were compiled from a wide range of procedures used in Australia and considered as consistent with good building practice in the installation of bulk thermal insulation.

The Committee has recognized the risk of certain electrical cables and equipment overheating when operating for extended periods when partially or completely surrounded by thermal insulation. To minimize this possibility a pre-installation inspection has been called for in order to identify whether this potential problem may occur where the thermal insulation is to be placed. The procedure to be adopted as a result of the inspection is set out in this Standard.

The Standard does not attempt to specify requirements for every method of installation of insulation. Rather, it provides general requirements, together with a number of common methods.

The various sub-structures that may be insulated with bulk insulation are dealt with in Section 5 with cross-references where necessary.

It is recommended that users of this Standard read the document as a whole rather than only referring to information on the specific building sub-structure to be insulated.

Installation of bulk thermal insulation, using the requirements and methods given in this Standard, will lead to reduction of heat gain in summer and of heat loss in winter. Bulk insulation and membranes work together to control heat, air and moisture, therefore the properties of membranes should always be considered. This Standard may also be read in conjunction with AS/NZS 4200.2, *Pliable building membranes and underlays*, Part 2: *Installation requirements*.

STANDARDS AUSTRALIA

Australian Standard

Bulk thermal insulation—Installation

S E C T I O N 1 S C O P E A N D G E N E R A L

1.1 SCOPE

The Standard sets out requirements on installing insulation in both new dwellings during construction and the retrofitting of insulation in existing buildings.

This Standard is intended for residential-type construction; however, the methods may be appropriate to other forms of construction.

This Standard includes requirements for electrical safety and guidance on Work Health and Safety.

This Standard is not intended to apply to the insulation of building services and equipment or materials with structural and/or external cladding or internal lining purposes.

This Standard does not deal with insulation that is foamed *in situ* nor the installation of pliable building membranes except when forming part of a bulk insulation product.

Insulation installed for the sole purpose of reverberation control is excluded from this Standard.

For the purposes of this Standard, bulk insulation also includes products which create multiple airspaces with a total installed product thickness greater than 20 mm.

1.2 APPLICATION

1.2.1 General

Bulk thermal insulation installation shall comply with Sections 2, 3 and 4, and the following, as applicable:

- (a) Roofs—Clause 5.2.
- (b) Ceilings—Clause 5.3.
- (c) Walls—Clause 5.4.
- (d) Floors—Clause 5.5.

Additional requirements for electrically conductive bulk insulation are provided in Appendix K.

1.2.2 Relationship with regulations

This Standard is intended to provide technical requirements for implementation by reference in statutory (building) regulations.

This Standard may be read in conjunction with, but does not take precedence over, any statutory regulations that may apply in any area.

NOTE: An installation may come under the jurisdiction of several authorities with differing areas of responsibility, and an approval from one does not necessarily constitute an approval from others.