

Australian/New Zealand Standard™

**Protective clothing for firefighters—  
Requirements and test methods for  
protective clothing used for wildland  
firefighting (ISO 15384:2003, MOD)**



## **AS/NZS 4824:2006**

This Joint Australian/New Zealand Standard was prepared by Joint Technical Committee SF-049, Firefighters Personal Protective Equipment. It was approved on behalf of the Council of Standards Australia on 30 May 2006 and on behalf of the Council of Standards New Zealand on 9 June 2006. This Standard was published on 6 July 2006.

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The following are represented on Committee SF-049:

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## PREFACE

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee SF-049, Firefighters Personal Protective Equipment to supersede AS 4967(Int)—2001.

This Standard has been reproduced from the International Standard ISO 15384:2003, *Protective clothing for firefighters—Laboratory test methods and performance requirements for wildland firefighting clothing*, with variations for application in Australia and New Zealand. The variations are listed in Appendix ZZ following the source text.

The objective of this Standard is to provide manufacturers, purchasers and users with requirements for wildland firefighters' protective clothing.

As this Standard is reproduced from an International Standard, the following applies:

- (a) Its number appears on the cover and title page while the draft International Standard number appears only on the cover.
- (b) In the source text 'this International Standard' should read 'this Australian/New Zealand Standard'.
- (c) A full point substitutes for a comma when referring to a decimal marker.

References to International Standards should be replaced by Australian or Australian/New Zealand Standards, as follows:

<i>Reference to International Standard</i>		<i>Australian or Australian/New Zealand Standard</i>	
ISO		AS/NZS	
3175	Textiles—Dry-cleaning and finishing	1957	Care labelling of clothing, household textiles, furnishings, upholstered furniture, bedding, piecegoods and yarns
3175-1	Part 1: Method for assessing the cleanability of textiles and garments		

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

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## INTRODUCTION

The purpose of this International Standard is to provide minimum performance requirements for protective clothing designed for use for extended periods during wildland fire fighting and associated activities.

Wildland fire fighting involves work primarily in summer temperatures, for many hours in which the firefighter may develop high levels of metabolic heat. Consequently, the protective clothing should be light, flexible and commensurate with the risks to which the firefighter may be exposed in order to be effective without introducing heat stress to the wearer.

Accordingly, a risk assessment should be undertaken to determine if the clothing covered by this International Standard is suitable for its intended use and the expected exposure. This International Standard does not cover clothing for use in risk situations where clothing complying with ISO 11613 or ISO 15538 is more suitable, nor does this International Standard cover clothing to protect against chemical, biological, electrical or radiation hazards.

The risk assessment should include what additional personal protective equipment is necessary for head, hand and feet. In some situations, respiratory protection may also be required.

Firefighters should be trained in the use, care and maintenance of the protective clothing covered by this International Standard, including an understanding of its limitation.

Nothing in this International Standard is intended to restrict any jurisdiction, purchaser or manufacturer from exceeding these minimum requirements.

A list of International Standards related to ISO 15384 is given in the Bibliography.

## AUSTRALIAN/NEW ZEALAND STANDARD

**Protective clothing for firefighters—Requirements and test methods for protective clothing used for wildland firefighting (ISO 15384:2003, MOD)****1 Scope**

This International Standard specifies methods of test and minimum performance requirements for protective clothing to be worn in wildland firefighting and associated activities. This clothing is not intended to provide protection during fire entrapment. This International Standard applies to the general design of the garment, the minimum level of performance for the materials employed and the methods of test to determine these levels.

This International Standard is not applicable to clothing for use in risk situations where clothing complying with ISO 11613 or ISO 15538 is more suitable, nor does this International Standard cover clothing to protect against chemical, biological, electrical or radiation hazards.

This International Standard is not applicable to protection of the head (it may cover the neck), eyes, hand, feet and respiratory system. These aspects may be dealt with in other International Standards.

**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.

ISO 139, *Textiles — Standard atmospheres for conditioning and testing*

ISO 3146, *Plastics — Determination of melting behaviour (melting temperature or melting range) of semi-crystalline polymers by capillary tube and polarizing-microscope methods*

ISO 3175-1, *Textiles — Dry cleaning and finishing — Part 1: Method for assessing the cleanability of textiles and garments*

ISO 3758, *Textiles — Care labelling code using symbols*

ISO 4674-1:—<sup>1)</sup>, *Rubber- or plastics-coated fabrics — Determination of tear resistance — Part 1: Constant rate of tear methods*

ISO 5077, *Textiles — Determination of dimensional change in washing and drying*

ISO 6330:2000, *Textiles — Domestic washing and drying procedures for textile testing*

ISO 6942:2002, *Protective clothing — Protection against heat and fire — Method of test: Evaluation of materials and material assemblies when exposed to a source of radiant heat*

ISO 11092, *Textiles — Physiological effects — Measurement of thermal and water-vapour resistance under steady-state conditions (sweating guarded-hotplate test)*

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1) To be published. (Revision of ISO 4674:1977)