AS/NZS 2343:1997

# Australian/New Zealand Standard®

## **Bullet-resistant panels and elements**

This Joint Australian/New Zealand Standard was prepared by Joint Technical Committee MS/43, Bullet Resistant Glazing Panels. It was approved on behalf of the Council of Standards Australia on 6 June 1997 and on behalf of the Council of Standards New Zealand on 6 June 1997. It was published on 5 August 1997.

The following interests are represented on Committee MS/43:

Australian Bankers Association Australian Chamber of Commerce and Industry Australian Chamber of Manufactures Flat Glass Council of Australia New South Wales Police Service New Zealand Police New Zealand Safety Glass Association

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This Standard was issued in draft form for comment as DR 96419.

## Australian/New Zealand Standard®

## **Bullet-resistant panels and elements**

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STANDARDS AUSTRALIA 1 The Crescent, Homebush NSW 2140 Australia

STANDARDS NEW ZEALAND Level 10, Radio New Zealand House, 155 The Terrace, Wellington 6001 New Zealand

#### PREFACE

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This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee MS/43, Bullet Resistant Glazing Panels, to supersede AS 2343, Bullet resistant panels for interior use, Part 1—1983, Glazing panels and Part 2—1984, Opaque panels.

Panels which were certified prior to publication of this revision in accordance with AS 2343.1—1983 and AS 2343.2—1984 are deemed to comply with the corresponding classification(s) of this revision.

The objective of the Standard is to provide manufacturers and suppliers with requirements and test methods for bullet-resistant panels and elements that are designed to provide protection against the effects of ballistic attack involving the use of firearms. Bulletresistant panels and elements may also be resistant to other forms of attack.

This edition incorporates several changes to the test conditions for the determination of resistance to ballistic attack.

The terms 'normative' and 'informative' have been used in this Standard to define the 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.

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

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#### FOREWORD

The primary function of bullet-resistant panels and elements is to prevent penetration by projectiles discharged from firearms. Protection from any particles of the panels and elements which may be ejected from the rear surface of the panels and elements under attack (such as glass splinters or metal particles) is also desirable and such performance is required for compliance with this Standard.

As the nature of fitting and method of installation of glazed or opaque panels and elements may be widely varied, it is not possible to specify instructions for installation within this Standard. However, it must be noted that the degree of protection depends as much upon the design, fixing and maintenance of the panel and element as it does upon the bullet-resistant panel or element itself. Accordingly, the frames or surrounding areas of the panels and elements should provide as high a level of protection as the panels and elements themselves and any support system should also provide sufficient overlap to prevent dislodgment of the panels and elements under attack. The panels and elements must be correctly installed according to their design characteristics, particularly important in relation to specific mounting or glazing requirements, or where it is necessary to orientate the bullet-resistant panels or elements in relation to the expected direction of attack.

Where any doubt exists regarding installation of bullet-resistant panel and elements, further information should be obtained from the manufacturer.

#### STANDARDS AUSTRALIA/STANDARDS NEW ZEALAND

### Australian/New Zealand Standard Bullet-resistant panels and elements

**1 SCOPE** This Standard specifies requirements for bullet-resistant panels and elements according to their performance in preventing penetration by projectiles discharged from firearms under controlled conditions. This Standard applies to transparent, opaque and translucent panels and other components including but not restricted to frames, mullions, voice transfer louvres and pass-through devices (elements).

This Standard does not include a requirement for the retention of bullet-resistant properties for a stated period of time nor requirements for certain other aspects such as the durability of the glazing. Such requirements may be nominated by a purchaser who will determine the criteria and agree to the method for demonstration of compliance.

NOTES:

- 1 Glazing panels that are much smaller than the type test samples, as described in this Standard, may provide less protection in service than is indicated by the performance of the samples.
- 2 Advisory information on the assessment of compliance with this Standard is given in Appendix A.

**2 REFERENCED DOCUMENTS** The following documents are referred to in this Standard:

AS

1199 1399	Sampling procedures and tables for inspection by attributes* Guide to AS 1199—Sampling procedures and tables for inspection by attributes*
ISO 9004	Quality management and quality assurance standards Part 1: Guidelines for selection and use Quality management and quality system elements Part 1: Guidelines
SAA HB18 HB18.28	Guidelines for third-party certification and accreditation Guide 28—General rules for a model third-party certification system for products.

3 **DEFINITIONS** For the purpose of this Standard, the definitions below apply.

**3.1 Bullet-resistant panel**—a homogeneous or composite material in sheet form which is classified according to the resistance of  $420 \times 420$  mm representative samples to ballistic attack by firearms, as set out in this Standard.

**3.2** Bullet-resistant element — a component (such as frame, voice transfer louvre, pass-through tray and the like) which is classified according to the resistance of representative samples to ballistic attack by firearms, as set out in this Standard.

<sup>\*</sup> Endorsed by Standards New Zealand as suitable for use in New Zealand.



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