

Australian Standard[®]

**Security screen doors and security
window grilles**

STANDARDS
Australia



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The following are represented on Committee CS-023:

- Architectural Aluminium Fabricators Association (NSW)
 - Australian Aluminium Council
 - Australian Chamber of Commerce and Industry
 - Australian Industry Group
 - Australian Window Association Inc
 - Certification Bodies (Australia)
 - Curtin University of Technology
 - Insurance Council of Australia
 - Master Builders Australia
 - Master Locksmiths Association of Australasia
 - National Security Screen Association
 - Steel Security Manufacturers Association Queensland
 - University of Tasmania
-

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Australian Standard®

Security screen doors and security window grilles

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PREFACE

This Standard was prepared by the Standards Australia Committee CS-023, Security Screen Doors and Window Grilles to supersede AS 5039—2003.

The objective of this Standard is to provide users of security screen doors or security window grilles with specifications covering the general requirements and performance of security screen doors or window grilles used primarily in residential situations.

Significant new developments in this Revision include modification on the appendix for identification details and test report.

Any alternative materials, designs, methods of assembly, procedures, and the like, that do not comply with specific requirements of this Standard, but give equivalent results to those specified are not necessarily precluded; however, equivalent performance will need to be demonstrated.

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. All other notes are for information and guidance only.

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FOREWORD

Screen doors and window screens are a common feature of construction in most parts of Australia, allowing for free circulation of air in hot weather and, often, excluding insects from the premises; however, flyscreens offer little security and are easily broken through. The development of the concept of security screen doors or window grilles, being strong enough to withstand most attempts at forced entry while retaining the advantages of a screen door and a window screen has led to a rapid rise in the number of these security screen doors and window grilles being sold and installed. In setting performance requirements for security screen doors and window grilles, this Standard acknowledges that such security screen doors and window grilles are not ‘intruder proof’.

Security screen doors and window grilles are intended primarily to provide a degree of security for residents of occupied premises, and the effectiveness of these security screen doors and window grilles must be considered with regard to their intended use.

The requirements of this Standard apply to the infill material and associated hardware as a manufactured product, and it must be acknowledged that the effectiveness of a security screen door or window grille depends on the strength of the security screen door or window grille itself, the adequacy of its installation and the strength of the door frame and window frame in which it is installed.

The use of unsuitable fastenings or the installation into a window door or window frame can seriously undermine the ability of a security screen door or window grille to resist the intentions of an intruder.

Security screen doors and window grilles are currently sold mainly as separate products and are generally not supplied as part of a door and a window suite. Hence, they are fitted to existing exterior doorframes and window frames either as they stand or with the use of proprietary fittings. Accordingly, the installer has an obligation to assess the strength and suitability of the existing doorframe or window frame in addition to correctly installing the security screen door or window grille.

Particular attention should be paid to the installation of security screen doors to doorframes and window grilles to window frames that have not been designed to accept security screen doors and window grilles. Security depends on the strength and adequacy of the following:

- (a) The security screen door and window grille.
- (b) The adaptor frame and the method of fixing it.
- (c) The structure and strength of the doorframe and window frame.

It is highly recommended that—

- (i) security window grilles be selected and installed with due regard to occupant safety in the event of a fire, as the window may become the only emergency egress;
- (ii) at least one window in each bedroom allows keyless emergency egress and the opening mechanism be easily accessible to the occupants, that is, a maximum height of 100 mm above the bottom; and
- (iii) some form of fire detection be installed in the premises.

Attention should be given also to local government regulations.

The person or organization installing security window grilles should ensure that their products or services, or both, comply with individual State or Territory regulations in Australia.

Where people are seeking higher security, reference should be made to AS 3555.1, *Building elements—Testing and rating for intruder resistance Part 1: Intruder-resistant panels*.

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STANDARDS AUSTRALIA

Australian Standard**Security screen doors and security window grilles****1 SCOPE**

This Standard specifies requirements for the performance of all types of hinged and sliding security screen doors and hinged, sliding, removable and fixed security window grilles used primarily in residential situations. This Standard is concerned mainly with resistance to forced entry and does not address the important issues relating to egress in the case of emergency. The Standard covers movable and removable security window grilles that can be used in such instances.

NOTES:

- 1 Alternative methods for determining compliance with this Standard are given in Appendix A.
- 2 The effectiveness of security screen doors or window grilles is dependent on the strength of the screen and grille and the adequacy of its installation in its surrounds. For information on installation, see the Foreword and AS 5040.
- 3 Double-leaf doors may be constructed and tested in accordance with this Standard, and reported accordingly in consultation with the testing authority.

2 APPLICATION

This Standard is intended for use by regulatory authorities and all persons concerned with the manufacture, installation and general requirements of security screen doors or window grilles for use primarily in residential situations.

NOTE: Residential situations would generally include, but not be limited to, Classes 1, 2, 3 and 10a as defined in the Building Code of Australia.

The parts of a security screen door or window grille shall not be referred to in isolation as being the complete security screen door or window grille; for example, the infill panel.

3 REFERENCED DOCUMENTS

The following documents are referred to in this Standard:

AS

1199	Sampling procedures for inspection by attributes
1199.0	Part 0 Introduction to the ISO 2859 attribute sampling system
1199.1	Part 1 Sampling schemes indexed by acceptance quality limit (AQL) for lot-by-lot inspection
1231	Aluminium and aluminium alloys—Anodic oxidation coatings
1397	Steel sheet and strip—Hot-dipped zinc-coated or aluminium/zinc-coated
1700	Electroplated zinc (electrogalvanized) coatings on ferrous articles (batch process)
2331	Methods of test for metallic and related coatings
2331.3.1	Method 3.1: Corrosion and related property tests—Neutral salt spray (NSS) test
3555	Building elements—Testing and rating for intruder resistance
3555.1	Part 1: Intruder-resistant panels
3715	Metal finishing—Thermoset powder coating for architectural applications of aluminium and aluminium alloys