

SINGAPORE STANDARD

Specification for aluminium alloy windows



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The organisations in which the experts of the Working Group are involved are:

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Compact Metal Industries Ltd
Fire Safety & Shelter Department
Housing & Development Board
Kumpulan Akitek
Lam Hong Leong Aluminium Pte Ltd
Singapore Civil Defence Force
TUV SUD PSB Pte Ltd
YKK AP Singapore Pte Ltd

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Contents

	Page
Foreword _____	7

CLAUSES

1	General _____	8
2	Definitions _____	8
3	Window types and handing _____	11
4	Materials _____	13
5	Construction _____	14
6	Work sizes and manufacturing tolerances _____	15
7	Glazing _____	15
8	Security _____	15
9	Safety _____	16
10	Performance _____	16
11	Re-testing _____	24
12	Report _____	25
13	Modularly co-ordinated sizes _____	27
14	Marking _____	27

ANNEXES

A	Air leakage test _____	28
B	Watertightness test _____	34
C	Structural performance test _____	36
D	Proof load test _____	39
E	Operation and strength tests _____	41
F	Recommended periods for calibration _____	51
G	Normative references _____	52

TABLES

1	Schedule of test requirements for operation test of windows _____	22
2	Operation of fasteners _____	23
3	Operation of sash _____	23
4	Preferred sizes for windows _____	27

FIGURES

1	Window types (Elevations viewed from outside) _____	12
2a	Air leakage limits for opening lights of windows of air-conditioned buildings _____	18
2b	Air leakage limits for fixed lights of windows of air-conditioned buildings _____	19
3a	General arrangement of a typical test chamber (Exterior of test specimen facing inward of chamber) _____	31
3b	General arrangement of a typical test chamber (Exterior of test specimen facing outward of chamber) _____	32
4	Pressure sequence for air leakage test _____	33
5	Pressure sequence for watertightness test _____	35
6	Pressure sequence for structural performance and proof load test _____	38
7	Arrangement for resistance to excessive operating force (Test 3) _____	44
8	Arrangement for release of jammed sash (Test 4) _____	45
9	Arrangement for release of jammed hinge (Test 5) _____	46
10	Arrangement for strength of restricted opening and location system (Test 6) _____	47
11	Arrangement for resistance to accidental loading (Test 7) _____	49
12	Section showing dimensions "a" and "b" _____	50

Foreword

This Singapore Standard was prepared by the Technical Committee on Architectural Works under the purview of the Building and Construction Standards Committee.

It is a revision of SS 212 : 2000. The main changes in this revision are as follows:

1. Materials of fastenings and fixings shall be of stainless steel Type 304 (minimum). A new clause on the material and rigidity of stainless steel friction hinges is included. The clause specifies that the hinge shall be securely held by sufficient number of fastener in accordance with manufacturers' specifications.
2. Thickness of aluminium profile that receives the fixing of friction hinge shall be not less than 2.75 mm thick is recommended.
3. Definition and figure of full height windows are included. Windows or fixed glass panels below the height of barrier shall comply with Building Control Regulations. The use of laminated glass is recommended for the fixed glass panel below the height of barrier.
4. References to BS have been updated to BS EN wherever applicable.
5. Jumping track test requirement is introduced for sliding windows.

In preparing this specification, reference is made to the following publications:

- | | | |
|----|-----------------|---|
| 1. | ASTM E 283 : 04 | Standard test method for determining the rate of air leakage through exterior windows, curtain walls, and doors under specified pressures differences across the specimen |
| 2. | ASTM E 330 : 02 | Standard test method for structural performance of exterior windows, curtain walls, and doors by uniform static air pressure difference |
| 3. | ASTM E 331 : 00 | Standard test method for water penetration of exterior windows, curtain walls, and doors by uniform static air pressure difference |
| 4. | BS 4873 : 2004 | Specification for aluminium alloy windows |
| 5. | BS 6375 : 1999 | Performance for windows

Part 1 – Classification for weathertightness (including guideline on selection and specification)

Part 2 – Specification for operation and strength characteristics |
| 6. | SS 381 : 1996 | Materials and performance tests for aluminium curtain walls |
| 7. | AAMA : 501 | Methods of test for exterior walls |

Acknowledgement is made for the use of information from the above publications.

Attention is drawn to the possibility that some of the elements of this Singapore Standard may be the subject of patent rights. Enterprise Singapore shall not be held responsible for identifying any or all of such patent rights.

NOTE

1. *Singapore Standards (SSs) and Technical References (TRs) are reviewed periodically to keep abreast of technical changes, technological developments and industry practices. The changes are documented through the issue of either amendments or revisions.*
2. *An SS or TR is voluntary in nature except when it is made mandatory by a regulatory authority. It can also be cited in contracts making its application a business necessity. Users are advised to assess and determine whether the SS or TR is suitable for their intended use or purpose. If required, they should refer to the relevant professionals or experts for advice on the use of the document. Enterprise Singapore shall not be liable for any damages whether directly or indirectly suffered by anyone or any organisation as a result of the use of any SS or TR.*
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Specification for aluminium alloy windows

1 General

1.1 Scope

This Singapore Standard specifies materials, construction, finishes, hardware and performance standards for aluminium alloy windows. It also provides recommended co-ordinating sizes. This standard does not relate to secondary inner windows and louvre windows. For windows along open corridors, they do not have to be tested for watertightness. Any windows or fixed glass panels below the height of barrier shall comply with the Building Control Regulations.

1.2 Normative references

The reference documents in Annex G are indispensable for the application of this Singapore Standard. For dated references, only the edition cited applies. For undated references, the latest edition of the references document (including any amendments) applies.