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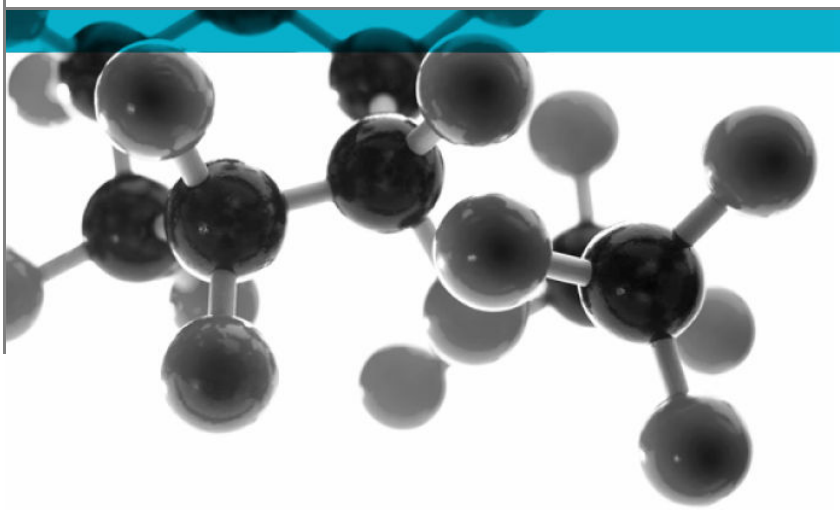
BS EN 14351-1:2006



Test of: Titon Hook and latch restrictor

Windows and doors – Product standard, performance characteristics

A Report To: Titon Hardware Ltd

Document Reference: WIL 339762

Date: 25/04/2014

Copy: 1

Issue No.: 1

Testing
Advising
Assuring

UKAS TESTING
0621

TEST CONCLUSIONS

Samples of:

Manufacturer	Titon Hardware Ltd
Product	Side hung window
Model	Aluminium side hung window with hook and latch restrictor

have been tested in accordance with: BS EN 14351-1:2006
By Exova Warringtonfire Willenhall, a UKAS accredited Testing Laboratory (No. 0621) and EC Notified Body number (No. 1104)

At Key Industrial Park, Fernside Rd, Willenhall, West Midlands, WV13 3YA.
Results and comments as detailed below:

Clause No.	Description	Compliance
4.8	Load bearing capacity of safety devices – 350N	Yes

No inferences can be made regarding performance against other requirements of this standard

Tests marked " N/A" are not applicable to the sample under test.
Tests marked "N/T" were not applied to the sample under test

AUTHORISATION

Tests performed by: Chris Bryan, Test Engineer

Report issued by: Chris Bryan, Test Engineer

Signed

Date 25th April 2014

For and on behalf of Exova Warringtonfire

Report authorised by: Mark West, Door & Window Laboratory Manager

Signed

Date 25th April 2014

For and on behalf of Exova Warringtonfire

Report issued: 25 April 2014

UKAS TESTING 0621

NOTE.
Tests marked "Not UKAS Accredited" are not covered by the Laboratory UKAS accreditation schedule.

Tests marked NT were not tested
Tests marked NA are not applicable to the product on test.

The laboratory has tested the product supplied by the client as sampled in accordance with their own requirements

Exova Warringtonfire is an EC Notified Body Number 1104

CONTENTS **PAGE NO.**

TEST DETAILS

CLIENT DETAILS

Company name	Titon Hardware Ltd
Address	International Road Peartress Road Stainway Colchester Essex
Postcode	Co3 0JL
Contact	Paul Duke

ORDER DETAILS

Order number	42008
Dated	31/01/2014

SAMPLE DETAILS

Product	Side hung window
Model	Aluminium side hung window with hook and latch restrictor
Manufacturer	Titon Hardware Ltd
Frame Dimensions	814 x 1660 mm
Sash Dimensions	762 x 1620 mm
Material	Aluminium
Details of Hardware	
Hinges	TN5014 Adventure Side Hung Heavy Duty Friction Hinge
Restrictor	Capture Restrictor Right Hand TN1120 and 14.5mm Post TN1125.
Lock	Securistyle Virage Cockspur Handle x 2
Markings	None
Date of Manufacture	Unknown
Other information	None

TEST DETAILS

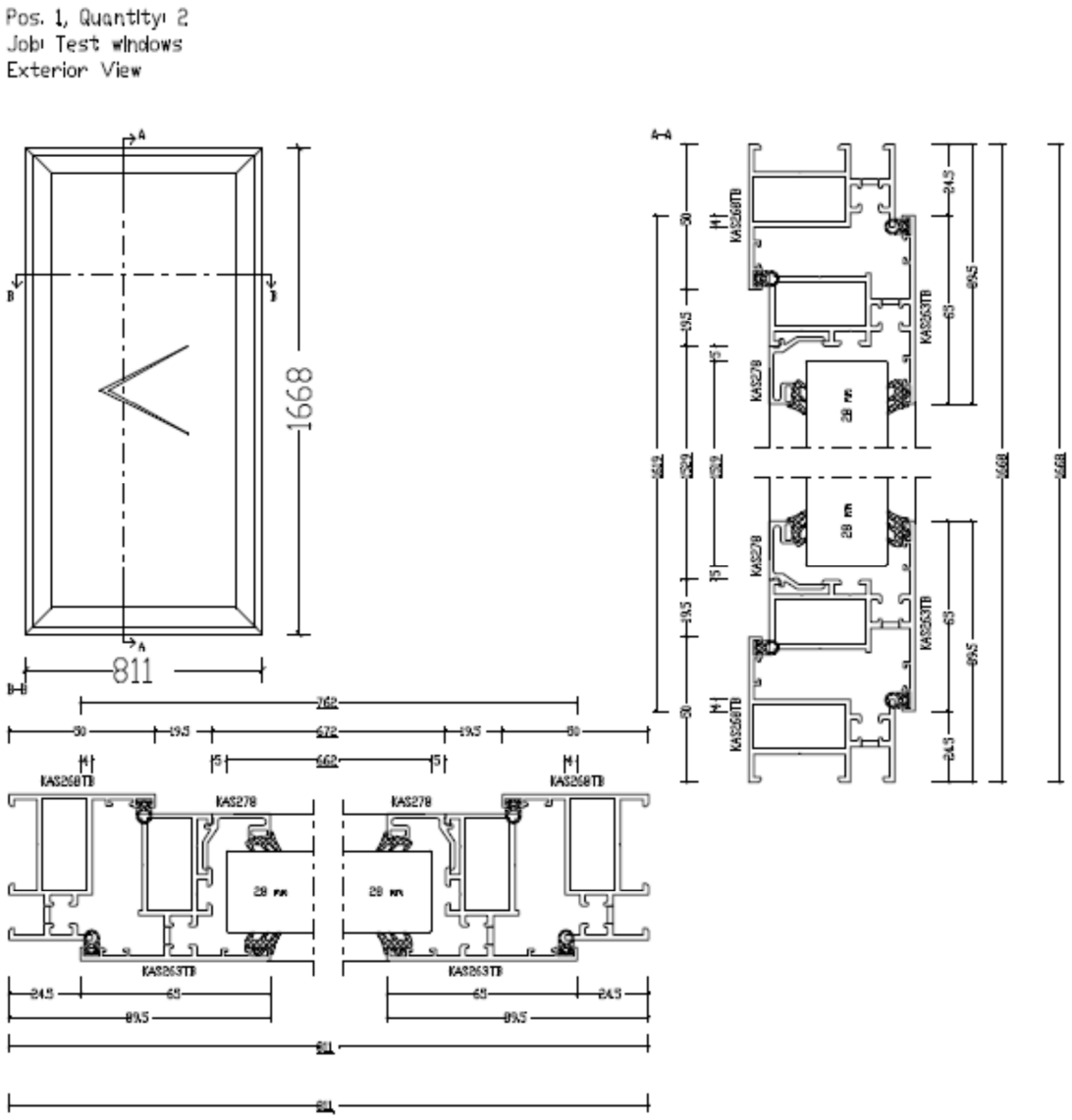
Test specification	BS EN 14351 :2006
Full test	Yes
Test to clauses	4.8
Test Method	BS EN 14609:2004 strength of safety devices
Sample received	31/03/2014
Test started	03/04/2014
Test completed	03/04/2014
Special Test requirements	None
Other reports to be used in conjunction with this report	None

TEST PROCEDURE

Introduction	This test report should be read in conjunction with the Standard BS EN 14351-1:2006: Windows and doors – Product standard, performance characteristics – Part 1: Windows and external pedestrian door set's with out resistance to fire and/or smoke leakage characteristics. The specimens were judged on their ability to comply with the performance criteria as required in BS EN 14351-1:2006, with test methods BS EN 14609.
Instruction To Test	The test was conducted on the 3rd April 2014 on behalf of Titon Hardware Limited. Initial requirement was as defined in BS6375-2, requiring a performance of a threshold value of 350N for load-bearing capacity of safety devices.
Test Specimen Construction	A description of the test construction is given in the Schedule of Components. The description is based on a detailed survey of the specimens and information supplied by the sponsor of the test.
Sampling	The samples were not independently witnessed or selected and were provided direct from the test sponsor.
Installation	The sample was supplied mounted within a timber sub-frame of nominal section 75mm x 100mm fitted flush with the exterior face, in accordance with the clients fitting instructions.
Test Climate	The sample was conditioned in the laboratory in the range 10-30 °C and 25-75% humidity.

TEST SPECIMEN

Figure 1- Window drawings



Do not scale. All dimensions are in mm

SCHEDULE OF COMPONENTS

(Refer to Figures 1 to 3)
(All values are nominal unless stated otherwise)
(All other details are as stated by the sponsor)

Variants

None

“Kestrel 50” System

Sash Width 762mm x Sash Height 1619mm
Sealed Glass Unit 28mm 2 x 6mm Toughened Glass
TN5014 Adventure Side Hung Heavy Duty Friction Hinge
Securistyle Virage Cockspur Handle x 2
Self drilling self tapping screws
Capture Restrictor Right Hand TN1120 and 14.5mm Post TN1125

PERFORMANCE CRITERIA & TEST RESULTS

Clause	Result	Pass/Fail
4.8 Load-bearing capacity of safety devices	The restrictor was engaged and a load of 350N was applied at the leading edge of the restricted stile in the opening direction. The load was held for 60 seconds and then removed. The sample held the load and continued to operate after the test. The same test was repeated at the unrestricted stile of the leading edge. The sample held the load and continued to operate after the test.	**PASS**

CONCLUSIONS

Evaluation against objective	The sample as provided by the client was subjected to operational & strength testing in accordance with BS EN 14351-1:2006 and achieved the requirements of clause 4.8 Load-bearing capacity of safety devices.
Observations & comments	

LIMITATIONS

Limitations	The results relate only to the behaviour of the specimens of the element of construction under the particular conditions of test. They are not intended to be the sole criteria for assessing the potential performance of the element in use, nor do they reflect the actual behaviour in use.
Range of window assemblies covered by this report	It is our opinion that the range of window assemblies covered by this report are limited to the following ▪ Assemblies with identical hardware fitted no further apart than in the tested assembly ▪ Assemblies of the same or smaller overall dimensions to the tested assembly
Uncertainty of Measurement	The uncertainties of measurements calculated for a confidence level of 95% throughout these tests are within the limits of these tolerances. The standard specifies the following tolerances ▪ Forces: ±2% ▪ Distances: ±1mm for tape measures ± 0.01mm for dial gauges ▪ Times: ±5s

REVISION HISTORY

Issue No :	**Re - Issue Date :**
Revised By:	**Approved By:**
Reason for Revision:	

Issue No :	**Re - Issue Date :**
Revised By:	**Approved By:**
Reason for Revision:	

END OF REPORT