



Test Report



Report No	2370/7690133/1 of 2 Issue 3	This Report consists of 8 pages
Client	Maco Door & Window Hardware Castle Road Sittingbourne Kent ME10 3LY	
Authority & date	Request by Client dated 25 May 2011	
Items tested	3 off PVC-U windows, Internally Glazed Casement Window Systems	
Specification	BS EN 14351 : 2006 Windows and doors – Product standard, performance characteristics Part1:Windows and external pedestrian doorsets without resistance to fire and/or smoke leakage characteristics Clause 4.8 load bearing capacity of safety devices. BS EN 14609 : 2004 Windows – Determination of the resistance to static torsion	
Results	Pass Issue 3 of this Report supersedes all previous issues. The amendment giving rise to this issue of the report can be ascertained by contacting the authorizing signatory	
Prepared by	D Kirsop 	(Senior Technician)
Authorized by	M Manito 	(Senior Engineer)
Issue Date	25 July 2011	
Conditions of issue	This Test Report is issued subject to the conditions stated in current issue of CP0322 'General conditions relating to acceptance of testing'. The results contained herein apply only to the particular sample/s tested and to the specific tests carried out, as detailed in this Test Report. The issuing of this Test Report does not indicate any measure of Approval, Certification, Supervision, Control or Surveillance by BSI of any product. No extract, abridgement or abstraction from a Test Report may be published or used to advertise a product without the written consent of the Managing Director, BSI, who reserves the absolute right to agree or reject all or any of the details of any items or publicity for which consent may be sought.	



0135

TEST AND EXAMINATION OF THREE PVC-U WINDOWS SUBMITTED FOR ASSESSMENT

INTRODUCTION

At the request of Maco Door & Window Hardware, the PVC-U windows detailed on page 4, were tested and assessed to the requirements of BS EN 14609: 2004 Windows – Determination of resistance to static torsion, as indicated on the following pages of this Report. This request was made by BSI Quotation referenced BSI0000306982 dated 25 May 2011. It is emphasized that assessments have not been made against the other Clauses of the Specification.

TEST SAMPLES

- 1 off projecting side hung next to projecting side hung window (sample1)
- 1 off projecting top hung window (sample 2)
- 1 off Tilt/turn window (sample 3)

(Equipment Record No 10124638)

Date samples received: 10 June 2011

Date of test: 17 June 2011

Laboratory temperature: 18.5°C

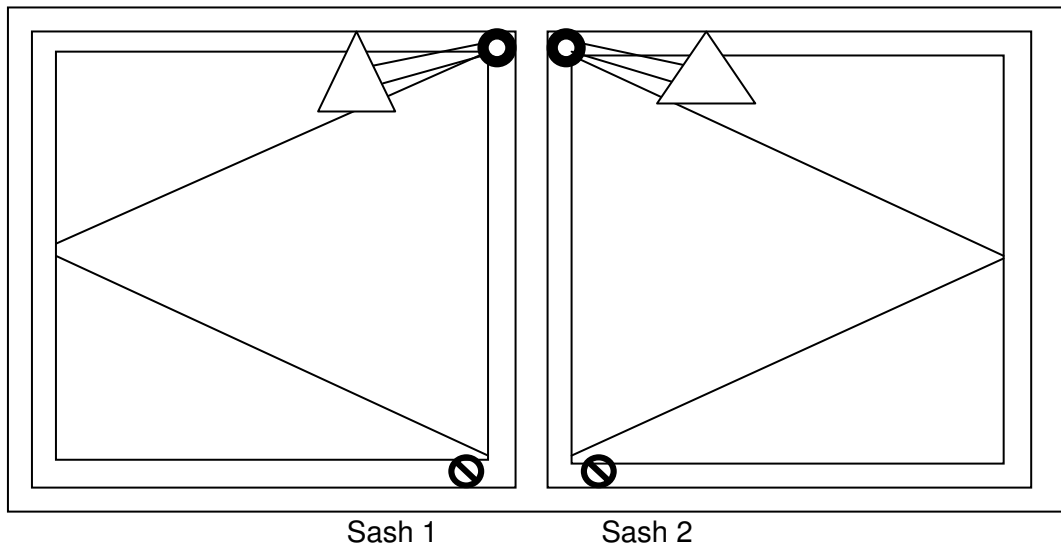
Laboratory Humidity: 53.5%

Atmospheric pressure: 101.1

DESCRIPTION OF SAMPLE (Sample 1)

Sample type -	Projecting side hung next to projecting side hung
Material -	PVC-U
Construction -	Mitred, welded and grooved joints
Fittings -	Friction stays: 12" side hung stays Locking: an six point locking (six mushroom bolts) Maco R.A.I.L espagnolette system operated by a key lockable handle Sash 1 – Maco Auto latch Restrictor Sash 2 – Maco Laminated 8213 Restrictor
Glass -	Double glazed, 4-20-4mm toughened glass sealed unit
Glazing system -	Internal beads and gaskets
Sample dimensions -	For information only (nominal sizes) Overall size Length: 1400mm Height: 1500mm Sash size (each sash) Length: 650mm Height: 1420mm

SUMMARY OF RESULTS (Sample 1)

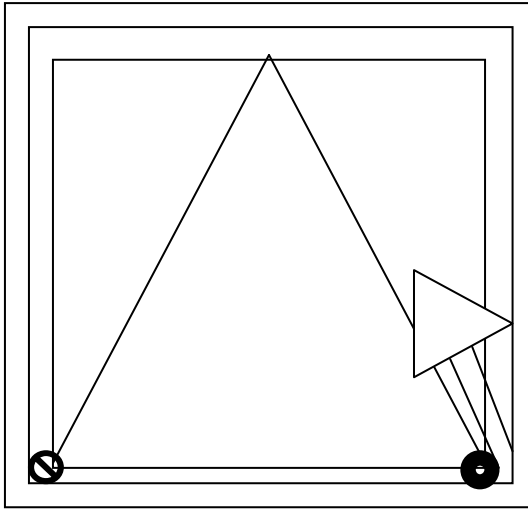


- The test specimen was opened and closed 5 times before test then opened to engage restrictor ready for the 350N force to be applied.
- A second load of 500N was put onto the restrictor at the clients' request
- The same test sequence was performed on the second opening light
- Position of eyebolt attachment ●
- Position of restrictors ⊘
- Direction of loads labelled by arrows
- Window had no permanent damage after test. **Pass**

DESCRIPTION OF SAMPLE (Sample 2)

Sample type -	Projecting top hung
Material -	PVC-U
Construction -	Mitred, welded and grooved joints
Fittings -	Friction stays: 12" top hung stays Locking: an six point locking (six mushroom bolts) Maco R.A.I.L espagnolette system operated by a key lockable handle First Test – (Right Jamb) Maco Auto latch Restrictor Second Test – (Left Jamb) Maco Laminated 8213 Restrictor
Glass -	Double glazed, 4-20-4mm toughened glass sealed unit
Glazing system -	Internal beads and gaskets
Sample dimensions -	For information only (nominal sizes) Overall size Length: 1000mm Height: 970mm Sash size Length: 935mm Height: 905mm

SUMMARY OF RESULTS (Sample 2)



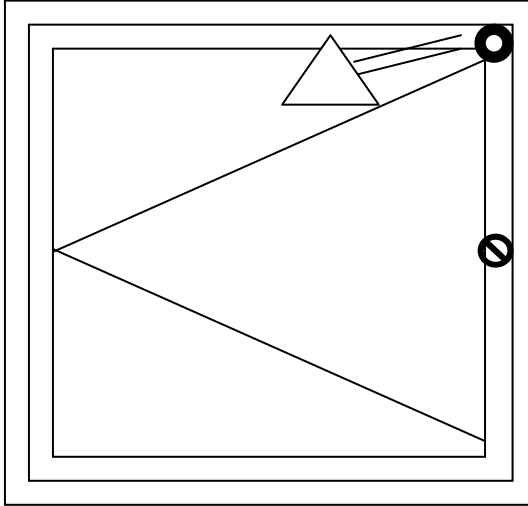
- The test specimen was opened and closed 5 times before test, then opened to engage restrictors ready for the 350N force to be applied.
- A second load of 500N was put onto the restrictor at the clients' request
- Position of eyebolt attachment ●
- Position of restrictor ⊘
- Direction of load labelled by arrow
- Window had no permanent damage after test.

Pass

DESCRIPTION OF SAMPLE (Sample 3)

Sample type -	Tilt/turn
Material -	PVC-U
Construction -	Mitred, welded and grooved joints
Fittings -	Locking: an eight point locking (eight mushroom bolts) Maco tilt/turn gearing operated by a key lockable handle 1 off Maco Multi vent Restrictor
Glass -	Double glazed, 4-20-4mm toughened glass sealed unit
Glazing system -	Internal beads and gaskets
Sample dimensions -	For information only (nominal sizes) Overall size Length: 1000mm Height: 1800mm Sash size Length: 925mm Height: 1725mm

SUMMARY OF RESULTS (Sample 3)



- The test specimen was opened and closed 5 times before test then opened to engage restrictor ready for the 350N force to be applied.
- A second load of 500N was put onto the restrictor at the clients' request
- Position of eyebolt attachment ●
- Position of restrictor ⊘
- Directions of load labelled by arrow
- Window had no permanent damage after test. **Pass**

END OF REPORT