Test Report

BSI Product Services

Report No	261/4676528 Issue 2 This Report consists of 6 pages
Client	Sapa Building Systems Limited Alexander Way Ashchurch Tewkesbury Gloucestershire GL20 8NB
Authority & date	Request by the Client dated 8 March 2005
Items tested	1 off aluminium alloy window, Sapa Dualframe 75mm Externally Glazed Casement Window System
Specification	BS 6375:Part 1:1989 Performance of windows - Classification for weathertightness BS 5368:Part 1:1976 (EN42) Methods of testing windows - Air permeability test
Results	See Summary of Results on Page 2 Issue 2 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
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Authorized by	R Avery (Engineer I)
Issue Date	27 April 2005
Conditions of issue	This Test Report is issued subject to the conditions stated in current issue of *PS082* '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 Product Services, 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.

UKAS TESTING
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TEST, EXAMINATION AND ASSESSMENT OF ONE ALUMINIUM ALLOY WINDOW, SAPA DUALFRAME 75MM EXTERNALLY GLAZED CASEMENT WINDOW SYSTEM

INTRODUCTION

At the request of Sapa Building Systems Limited the aluminium alloy window, detailed below and described on page 3, was tested and assessed to the requirements of BS 5368:Part 1:1976 (EN42) and BS 6375:Part 1:1989, as indicated on the following pages of this Report. This request was made in a Purchase Order from the Client dated 8 March 2005 and referenced TEC 523. It is emphasized that assessments have not been made against the other clauses of the Specification.

This Report only relates to the actual sample which has been tested and assessed.

TEST SAMPLE

1 off multilight window consisting of a projecting side hung light next to a fixed light, Sapa Dualframe 75mm casement

Date sample received: 14 March 2005

SUMMARY OF RESULTS

Air permeability	The sample met the requirements of Test Pressure Class 600Pa (Graph C) given in BS 6375:Part 1.

NOTE

The maximum rate of air leakage relative to the opening perimeter at 300Pa was 0.16m^3/h/m.

DESCRIPTION OF SAMPLE

Sample type -	A multilight window consisting of a projecting side hung light next to a fixed light
Material -	Aluminium alloy
Finish -	Painted
Construction -	Mechanically fixed joints
Fixing -	Screwed into an aluminium alloy sub frame for test purposes
Fittings -	An eight point locking (six mushroom bolts and two shootbolts) espagnolette system operated by a key locking handle and two variable geometry hinges.
Weathersealing -	Double sealed with a plastic weatherstrip, Q-Lon internally and Woolpile externally
Glass -	Double glazed, 4-16-4mm sealed units
Glazing system -	External beads and gaskets
Sample dimensions -	Length: 1230mm Height: 1480mm
Date of test -	18 March 2005
Laboratory temperature -	20°C
Test chamber temperature -	20°C

PREPARATION AND METHOD OF TEST

The sample was prepared for test as required by BS 5368:Part 1.
The sample was mounted into an aluminium alloy surround for installation in the test apparatus.
The joint between the sample and the aluminium alloy surround was sealed.

Air permeability

The air permeability of the sample was determined by the method given in BS 5368:Part 1.

TEST RESULTS

Air permeability	The results are recorded in Table 1 on page 5 of this Report and shown graphically on page 6.

AIR PERMEABILITY TEST RESULTS

Clause 10.2 Air Permeability

Table 1

Air pressure (Pa)	Blank reading (m^3/h)	Maximum total air flow (m^3/h)	Actual rate of air leakage (m^3/h)	Maximum rate of air leakage (m^3/h)	Select the perimeter type (Opening or Gasket) ($m^3/h/m$)
50	3.7	4.2	0.5	0.5	0.13
100	6.7	7.0	0.3	0.3	0.08
150	8.2	8.6	0.4	0.4	0.10
200	9.8	10.3	0.5	0.5	0.13
300	12.5	13.0	0.5	0.6	0.16
400	15.0	15.3	0.3	0.5	0.13
500	16.8	17.2	0.4	0.4	0.10
600	18.5	19.0	0.5	0.7	0.18
700	20.1	20.8	0.7	0.7	0.18
600	18.3	19.0	0.7	-	-
500	16.7	17.0	0.3	-	-
400	14.7	15.2	0.5	-	-
300	12.2	12.8	0.6	-	-
200	9.6	10.0	0.4	-	-
150	8.1	8.4	0.3	-	-
100	6.2	6.5	0.3	-	-
50	4.0	4.2	0.2	-	-

Opening perimeter (m) : 3.86

GRAPH OF AIR PERMEABILITY