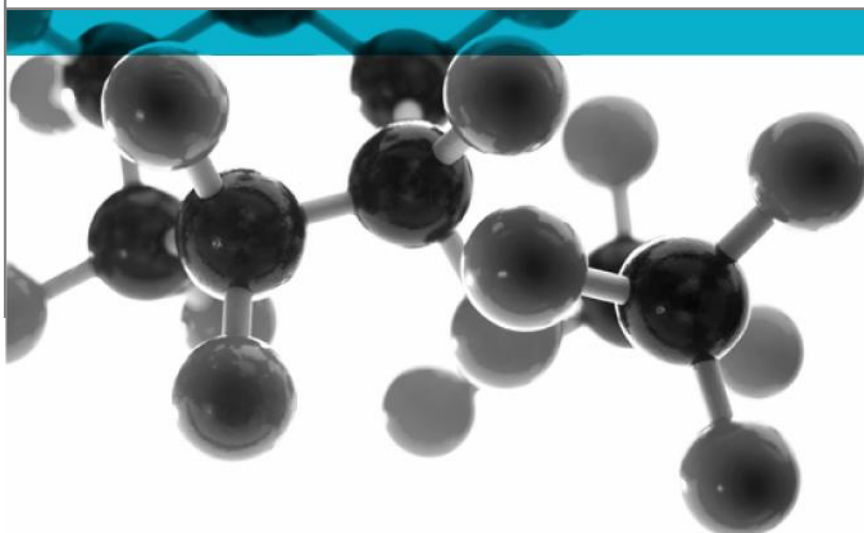


Testing, calibrating, advising.

PAS 24: 2012



Test of: Timber Vertical Sliding Sash Window WPL SBD 150

Enhanced security performance requirements for doorsets and windows in the UK

A Report To:
Q4 Windows Group
ul. Slowianska 8b
Koszalin
75-846
Poland

Document Reference:
WYC 372814

Date: 12/10/2016

Copy: 1

Issue No.: 1

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Exova – the new name for BM TRADA

On December 1st 2015, Chiltern International Fire Ltd and TRADA Technology Ltd (both trading as BM TRADA) commenced trading under the name Exova.

To coincide with this change, our Technical Reports, Test Reports, Product Assessments, company stationery and marketing collateral have been updated to reflect the Exova branding.

The validity of all documents previously issued by Chiltern International Fire Ltd and TRADA Technology Ltd including certificates, test reports and product assessments is unaffected by this change. A letter to this effect is available upon request by e-mailing europa@exova.com

About Exova

Exova is part of the Exova Group one of the world's leading laboratory-based testing groups, trusted by organisations to test and advise on the safety, quality and performance of their products and operations. Headquartered in Edinburgh, UK, Exova operates 143 laboratories and offices in 32 countries and employs around 4,500 people throughout Europe, the Americas, the Middle East and Asia/Asia Pacific. With over 90 years' experience, Exova specialises in testing across a number of key sectors from health sciences to aerospace, transportation, oil and gas, fire and construction.

Be assured that while the name will change, your service provision and primary contacts have not. What will be available to you is a wider team of testing experts and an extended range of testing capabilities.

If you have any questions, please do not hesitate to contact a member of the team and we will do our best to answer them. We appreciate your business to date and we look forward to working with you in the future.

Kind regards

Exova

T: +44 (0) 1494 569 600

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Results of Test: WYC 372814

Q4 Windows Group

ul. Slowianska 8b
Koszalin
75-846
Poland

This document confirms that performance testing was conducted on 14 February 2016. Testing was conducted to the following standard:

- PAS 24: 2012 Enhanced security performance requirements for doorsets and windows in the UK

The following results were achieved:

| Product tested | Timber Vertical Sliding Sash Window WPL SBD 150 | | |
|--|---|-------------------------|--------|
| Summary of testing procedure | | | Result |
| | Test Standard | Classification Standard | |
| PAS 24: 2012 Clauses C.4.3, C.4.4.2, C.4.4.3, C.4.5, C.4.6 and C.4.7 | | | Pass |

Passed PAS 24: 2012 for the requirements of key removable

The results relate only to the specimens tested, as detailed in the technical specification
Performance assessed from MM Timber report MTP/F15440/02/C

Issued by
Kyle Morris
Senior Technical Officer

Authorised by:
Mark West
Lab Manager
Issue date: 12th October 2016

Exova (UK) Ltd (trading as Exova)

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Technical specification

Report: WYC 372814

Test For: Q4 Windows Group, ul. Slowianska 8b, Koszalin, 75-846, Poland.

Performance testing to PAS 24: 2012 was conducted on your window from 14th February 2016. The technical specification is detailed below. The specimens were delivered to Exova laboratory on 14th January 2016.

Description of construction

The specimens were identical and identified as Timber Vertical Sliding Sash Windows WPL SBD 150. The overall frame dimensions were 1200mm wide x 2000mm high x 150mm deep. The top sash dimensions were 1060mm wide x 948mm high. The bottom sash dimensions were 1060mm wide x 948mm high. The specimen was locked with Fitch Catches and a removable key.

Sash top and bottom

| | Material/type/reference | Dimensions (mm) | Density (kg/m ³) |
|------------------|--|-------------------------------|------------------------------|
| Stiles and rails | Finger Jointed Pine* | 50 x 50 50 x 66 50 x 35 | 550* |
| Rebate | Single Type | 40 x 15* | - |
| Joints | Mortice and Tennon* | - | - |
| Adhesive | Two Component D4 Jowacoll (Ref. 102.20)* | - | - |

*As stated by sponsor, not checked by laboratory

Window frame

| | Material/type/reference | Dimensions (mm) | Density (kg/m ³) |
|------------------|--|-----------------|------------------------------|
| Stiles and rails | Finger Jointed Pine* | 70 x 52 | 550* |
| Rebate | Single type | 119 x 18 | - |
| Joints | Mortice and Tennon* | - | - |
| Adhesive | Two Component D4 Jowacoll (Ref. 102.20)* | - | |

*As stated by sponsor, not checked by laboratory

Hardware

| | Material/type/reference | Size (mm) | Fixing details (dimensions in mm) |
|------------------|---|--------------|-------------------------------------|
| Strike Plate | Mighton Strikech (Ref. 764859)* | 50 x 29 | 2No. 3.0 x 20 screws to bottom sash |
| Fitch Catch | Mighton Locking Securifitch Fastener* (Ref. SECFKEYRHCHR 764862)* | 75 x 31 | 2No. 3.8 x 30 screws to bottom sash |
| Fitch Catch Keep | Mighton Original Push Ventlock* (Ref. PUSHVLCH 764853)* | 75 x 12 x 19 | 2No. 2.8 x 40 screws to top sash |
| Cill Lock | Mighton Cill Lock (Ref. CILLCH) * | 37 x 23 | 2No. 3.0 x 25 screws to bottom sash |
| Sash Lifts | UK807 i (Caldwell)* (Ref. UK807 CH 602034 & UK806 CH 602025) | 49 x 20 | 2No. 3.0 x 25 screws to bottom sash |

*As stated by sponsor, not checked by laboratory

Perimeter sealing details

| | Make/type | Size (mm) | Location |
|-----------------|---------------------------------|-----------|------------------------|
| Casement edges | Schlegel Q-Ion (Ref.3004) | 10 wide | On sash side |
| | Schlegel Q-Ion (Ref. 3078) | 10 wide | On top and bottom sash |
| Frame reveal | None Present | - | - |
| Seal continuity | Seals uninterrupted by hardware | - | - |

* As stated by sponsor, not checked by laboratory

Glazing

| | Make/type/size (mm) | Location (dimensions in mm) |
|----------------------------|---------------------------------|-----------------------------|
| Glass type & configuration | 4 glass, 16 spacer, 4 glass* | - |
| Overall size | 983 x 874* | - |
| Sight size | 957 x 848 | - |
| Bead | Finger Jointed Pine* | 15 x 15 |
| Packers | 24 x 100 x 3 Plastic* | 3 x 20 x 100 1 x 20 x100 |
| Sealants | DenBraven: TECSIL (Ref. NA 469) | - |

* As stated by sponsor, not checked by laboratory