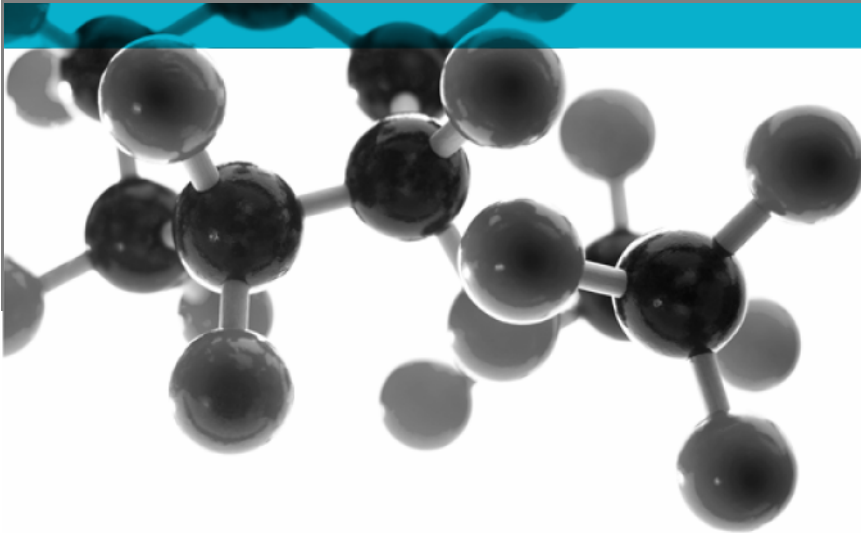


Testing, calibrating, advising.

# PAS 24: 2012 & BS 6375: Parts 1-3: 2009



**Test of: Arbor – Fenex 78t Top Swing Window + Arbor – Fenex 78t Fixed Window**

**Enhanced security performance requirements for doorsets and windows in the UK & Performance of windows and doors - Classification for operation & strength and additional characteristics and guidance on selection and specification**

**Date:** 18/04/2016

**Copy:** 1

**Issue No.:** 1

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A Report To:  
Selectron Elektrokimya Sanayi ve Ticaret Ltd Sti  
Dereboyu Cd.  
Sengul Sk  
No:6 34303 Halkali  
Istanbul

Document Reference:  
BMT/MTP/F15057/02



## **Exova – the new name for BM TRADA**

On December 1<sup>st</sup> 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](mailto: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

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# Results of Test: BMT/MTP/F15057/02/A

## Selectron Elektrokimya Sanayi ve Ticaret Ltd Sti

Dereboyu Cd.  
Sengul Sk  
No:6 34303 Halkali  
Istanbul

This document confirms that performance testing was conducted from 6 August 2015 to 19 January 2016. Testing was conducted to the following standards:

- BS 6375 Part 1: 2009 Performance of windows and doors – Part 1: Classification for weathertightness and guidance on selection and specification
- PAS 24: 2012 Enhanced security performance requirements for doorsets and windows in the UK

The following results were achieved:

Product tested	Arbor – Fenex 78t Top Swing Window + Arbor – Fenex 78t Fixed Window		
Summary of testing procedure			Result
	Test Standard	Classification Standard	
Air permeability	BS EN 1026: 2000	BS EN 12207: 2000	300Pa (Class 2)
Watertightness	BS EN 1027: 2000	BS EN 12208: 2000	600Pa (Class 9A)
Wind resistance	BS EN 12211: 2000	BS EN 12210: 2000	2000Pa (Class C5)
Exposure category		BS 6375: Part 1: 2009	2000
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

Air leakage at 50pa was 0.12m<sup>3</sup>/h positive pressure and 15.82m<sup>3</sup>/h negative pressure. The perimeter length of opening light was 6.07m.

**Passed PAS 24: 2012 for the requirements of both key removable and thumbturn locks**

The results relate only to the specimens tested, as detailed in the technical specification

Issued by:  
Lee Grant-Riach  
Technical Officer

Authorised by:  
Kyle Morris  
Senior Technical Officer  
Issue date: 18<sup>th</sup> April 2016

**Exova (UK) Ltd (trading as Exova)**

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# Results of Test: BMT/MTP/F15057/02/B

## Selectron Elektrokimya Sanayi ve Ticaret Ltd Sti

Dereboyu Cd.  
Sengul Sk  
No:6 34303 Halkali  
Istanbul

This document confirms that performance testing was conducted from 18 November 2015 to 8 April 2016. Testing was conducted to the following standards:

- BS 6375 Part 2: 2009 Performance of windows and doors – Part 2 Classification for operation and strength characteristics and guidance on selection and specification
- BS 6375 Part 3: 2009 Performance of windows and doors – Part 3 Classification for additional performance characteristics and guidance on selection and specification

The following results were achieved:

Product tested	Arbor – Fenex 78t Top Swing Window + Arbor – Fenex 78t Fixed Window		
Summary of testing procedure			Result
	Test Standard	Classification Standard	
Resistance to racking	BS EN 14608: 2004	BS EN 13115: 2001	Class 3
Resistance to static torsion	BS EN 14609: 2004	BS EN 13115: 2001	Class 3
Resistance to repeated opening and closing	BS EN 1191: 2000	BS EN 12400: 2002	10,000 Operations (Class 2)
Operating forces	BS EN 12046-1: 2004	BS EN 13115: 2001	Class 1
BS 6375 Part 3: 2009 annex A Basic security test			Pass

The results relate only to the specimens tested, as detailed in the technical specification

Issued by:  
Lee Grant-Riach  
Technical Officer

Authorised by:  
Kyle Morris  
Senior Technical Officer  
Issue date: 18<sup>th</sup> April 2016

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# Technical specification

## Report: BMT/MTP/F15057/02

**Test For: Selectron Elektrokimya Sanayi ve Ticaret Ltd Sti, Dereboyu Cd., Sengul Sk, No:6 34303 Halkali, Istanbul**

Performance testing to PAS 24: 2012, BS 6375: Part 1: 2009, BS 6375: Part 2: 2009, BS 6375: Part 3: 2009 and PAS-24: 2012 was conducted on your windows from 6 August 2015 to 8 April 2016. The technical specification is detailed below. The specimens were delivered to Exova laboratory on 5 August 2015

### Description of construction

The specimens were identical and identified as Arbor – Fenex 78t Top Swing Windows + Arbor – Fenex 78t Fixed Windows. The specimens were configured as a top swing casement above a fixed light. The overall frame dimensions were 1680mm wide x 2540mm high x 92mm deep. The casement dimensions were 1588mm wide x 1504mm high x 78mm thick. The specimen was locked with a removable key.

#### Casement

	Material/type	Dimensions (mm)	Density (kg/m <sup>3</sup> )
Stiles and rails	Pine*	78 x 64	450*
Joints	Finger jointed / Conduit*	-	-
Adhesive	D4*	-	-

\* As stated by sponsor, not checked by laboratory

#### Frame

	Material/type	Dimensions (mm)	Density (kg/m <sup>3</sup> )
Stiles and rails	Pine*	92 x 57	450*
Rebate	Single type	74 x 18	-
Transom	Pine*	95 x 75	450*
Joints	Finger jointed / Conduit*	-	-
Adhesive	D4*	-	-

\* As stated by sponsor, not checked by laboratory

## Hardware

	Make/type	Size (mm)	Fixing details (dimensions in mm)
Hinges	2No. Spilka A6 hinges (Ref. 100361-62)*	635 length	2No. 12 x 9 screws into frame* 5No. 4 x 30 screws into casement
Hinge protection	2No. Cotswold Stay Guard (Ref. 35)*	69 x 16	3No. 3.5 x 35 into frame 3No. 3.5 x 35 into casement
Locking mechanism	Spilka lock box (Ref. 16702)* with espagnolette rods (Ref. 305121)*	1588	8No. 4 x 30 screws
Keeps	2No. Spilka end keeps (Ref. 16840-41)*	45 x 22	1No. 4.5 x 30 screw
Handles	Secrstyle Virage (Ref. EBC40SCL)*	130 lever length	2No. 5 x 55 screws

\* As stated by sponsor, not checked by laboratory

## Perimeter sealing details

	Make/type	Size (mm)	Location
Casement edges	None present	-	-
Frame reveal	Uniform EPDM (Ref. DE 34)*	8 wide	On rebate upstand
Seal continuity	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	Opening	1488 wide x 1400 high	-
	Fixed	1594 wide x 817 high	-
Sight size	Opening	1464 wide x 1372 high	-
	Fixed	1566 wide x 787 high	-
Glazing bead		Pine* 18 x 20	Externally beaded
Bead fixings		30 x 1.8 pins* and silicone*	-
Sealants		Silicone*	Between rebate upstand and glass
		Silicone*	Between beads and glass

\* As stated by sponsor, not checked by laboratory