Test report

Test report relating to a building product according to European standard EN 14351-1: 2006 + A2:2016, Windows and doors – Product standard, concerning the product marked as: trademark: Veka System 10 and type: Casement Window, manufactured by: Window Warehouse

Report number	89218289-10
Date	4th February 2021
Author(s)	M. Hackett
Client	Window Warehouse Unit 1-8 Dragon Industrial Estate, Fitzherbet Road, Farlington, Portsmouth, PO6 1SQ, UK
Project number	89218289-10
Project name	ERCT 0766 Ongoing BS 6375-1
Number of pages	13

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Contents

1 Introduction

1.1 Purpose

The tests have been performed in order to establish whether or not the product meets the applicable requirements of the European standard EN 14351-1 [1].

For this report, the test results from "89218289-10 ERCT 0766 Window Warehouse Veka Casement Ongoing BS 6375-1" [2], dated 4th February 2021, have been used.

1.2 Description of the samples

General

Name of the manufacturer	Window Warehouse
Address of the manufacturer	Unit 1-8 Dragon Industrial Estate, Fitzherbet Road, Farlington, Portsmouth, PO6 1SQ, UK
Production plant of the samples	As above
Line ID where the samples are made	Not indicated
Production date	01/12/2020
The product was marked as	Veka System 10 Casement Window
Dimensions of the sample(s)	1950mm x 1270mm

Specific

Product description	Veka System 10 Casement Window
Type(s) of construction	Welded
Profile references	P10501 56mm Outer P10506 70mm Z Section P10503 70mm T Section P10508 75mm Sash P10431 28mm Bead
Origin of materials/type(s) of material	PVCu

Types of window	**Family Leader name (representative test specimen - most unfavourable)**	**Maximum sold size (width x height)**
with max. number of side & top hung casements, all openings outwards	**Veka System 10 Casement**	**Not Declared**

Construction and hardware

Method of frame jointing	Welded
Framing, profile and reinforcement detail	P10501 56mm Outer – S00185 P10506 70mm Z Section – S00187 P10503 70mm T Section – n/a P10508 75mm Sash – S00182
Types of beading, gaskets, glazing method or any other security feature present	P10431 28mm Bead PCE seals 2 No. Hinge Guards per sash 2 No. Glass locks per long bead and 1 No. per short bead. 1 No. Compression wedge per sash 4 No. Run up Blocks on Side Hung Sash 7 No. Run up Blocks on Top Hung Sash
Type and (overall) thickness of glazing (or infill medium)	4/20/4
Types and details of hardware	Avantis Lock and Keeps Mila Friction Stay Hinges GT Stay Guard Hinge Guards Inline Locking Handle GT Glass Locks Snap Fit
Types and details of hardware fixings	Lock – 4.3 x 32 NP Keeps – 4 x 19 DP Hinges into Outer Profile – 4.3 x 32 Pan Head Hinges into Outer Reinforcing – 4 x 19 Pan Head Hinges into Sash – 4 x 32 Pan Head Hinge Guard into Outer – 4 x 19 Pan Head Hinge Guard into Sash – 4.3 x 32 Pan Head Handles as supplied

1.3 Sampling procedure

The test house, acting as notified test body, has had no influence on the selection of the samples.

1.4 Application

The request for testing was submitted by Avantis Hardware on behalf of the manufacturer on 24/11/2020, order or reference number or name: 159218. Assignment Form number: ERCT 0766.

1.5 Method of testing

All applicable tests have been performed according to the European standard EN 14351-1 [1].

1.6 Put out to contract

Tests were performed on manufacturer's samples and executed by personel of ERC Testing Ltd, Unit A8(3), Pennington Court, Walter Leigh Way, Moss Industrial Estate, Leigh WN7 3PT, United Kingdom under responsability of the Notified Body TÜV Rheinland Nederland B.V.

1.7 Privacy statement

Due to privacy reasons, the names of involved personnel that executed the tests, are not disclosed in the report. However, this information is available on internal work sheets, test forms etc. in the project file.

1.8 Notifications and accreditations

TÜV Rheinland Nederland B.V. has been notified by the Dutch Ministry of Infrastructure and the Environment as Notified Test Laboratory and Notified Product Certification Body (number 0336) for the European Construction Products Regulation EU No 305/2011.

TÜV Rheinland Nederland B.V. has been accredited by the Dutch Accreditation Council (RvA) as ISO 17025 Test Laboratory (accreditation number L 484) and ISO 17065 Certification Body (accreditation number C078).

The reported tests were performed under ISO 17025 accreditation.

Period of measurement

The measurements took place on 28-01-2021.

2 Test results

Test results after performing the applicable tests according to European standard EN 14351-1 [1].

Req. Nr.	Characteristics	Classification standard	Test or calculation standard	Value	Classification
4.2	Resistance to wind load	EN 12210	EN 12211	Pa	
4.3	Resistance to snow and permanent load	Info on the infill	National regulations		
4.4	Fire characteristics				
4.4.1	Reaction to fire (roof windows only)	EN 13501-1	EN 13501-1		
4.4.2	External fire performance (roof windows only)	EN 13501-5	ENV 1187		
4.5	Water tightness	EN 12208	EN 1027	600 Pa	Class A9
4.6	Dangerous substances	European database			
4.7	Impact resistance	EN 13049	EN 13049	mm	
4.8	Load-bearing capacity of safety devices	Threshold value	EN 14609		
4.9	Height and width of doorsets and French windows	No classification	EN 12519		
4.10	Ability to release	No classification	EN 179, EN 1125, prEN 13633 or prEN 13637		
4.11	Acoustic performance	EN ISO 717-1	EN ISO 140-3, EN-ISO 717-1	dB	
4.12	Thermal transmittance	EN ISO 12567-1	EN ISO 10077-1:2000, Table F.1	$W/(m^2 – K)$	
4.13	Radiation properties	No classification	EN 13363-1 or EN 13363-2	*g*	
4.14	Air permeability	EN 12207	EN 1026	600 Pa	Class 4
4.15	Durability	No action			
4.16	Operating forces	EN 13115 EN 12217	EN 12046-1 EN 12046-2		
4.17	Mechanical strength	EN 13115 EN 1192	EN 14608 and EN 14609; EN		

Req. Nr.	Characteristics	Classification standard	Test or calculation standard	Value	Classification
			12046-1; EN 947, EN 948, EN 949 and EN 950		
4.18	Ventilation	EN 13141-1	EN 13141-1:2004		
4.19	Bullet resistance	EN 1522	EN 1523		
4.20	Explosion resistance				
4.20.1	Shock tube	EN 13123-1	EN 13124-1		
4.20.2	Range test	EN 13123-2	EN 13124-2		
4.21	Resistance to repeated opening and closing	EN 12400	EN 1191	Cycles	
4.22	Behaviour between different climates	- EN 12219	prEN 13420 EN 1121		
4.23	Burglar resistance	EN 1627	EN 1628, EN 1629, EN 1630		
4.24	Special requirements	No classification	Various standards		

Test data

Date of test	28th January 2021
Test equipment	KS Schulten Prüfeinrichtung
Test Report	ERCT 0766 Window Warehouse Casement 28 01 21.pdf

Watertightness: EN 12208 -

Spaying method A Number of nozzles: 5 Vol. Water: 600.0 litre/hour
Spaying angle:24 Degree : 10.0 litre/minute
Add. spraying pipe Number of nozzles: 0 Vol. Water: 0.0 litre/hour
(1.0 litre/nozzle) : 0.0 litre/minute

1. Watertightness pressure

Pressure Pa		Time	Remark
Nominal	Real		
0	0	00:15:00	OK
50	50	00:05:00	OK
100	99	00:05:00	OK
150	151	00:05:00	OK
200	201	00:05:00	OK
250	248	00:05:00	OK
300	302	00:05:00	OK
450	451	00:05:00	OK
600	600	00:05:00	OK

Watertightness Class: A9

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Air Permeabitity: EN 12207 in accordance with BS EN 1026

Window surface: 2.476 m2 Seal length: 7.392 m

1. Air Permeabitity pressure / Air Permeabitity suction

3 Pressure bump(s) 648 Pa performed
3 Pressure bump(s) -660 Pa performed

Pressure Pa Nominal	Real	Qc m³/h	Qtc m³/h	Window surface m³/h/m²	class	Joints length m³/h/m	class
+							
50	50	0.00	1.02	0.41	4	0.13	4
100	100	0.00	1.88	0.75	4	0.25	4
150	150	0.00	2.61	1.05	4	0.35	4
200	201	0.00	3.27	1.32	4	0.44	4
250	253	0.00	3.88	1.56	4	0.52	4
300	300	0.00	4.35	1.76	4	0.58	4
450	450	0.00	5.79	2.33	4	0.78	4
600	598	0.00	7.16	2.89	4	0.96	4
-							
-50	-51	0.00	1.08	0.43	4	0.14	4
-100	-100	0.00	2.00	0.80	4	0.27	4
-150	-151	0.00	2.80	1.13	4	0.37	4
-200	-201	0.00	3.45	1.39	4	0.46	4
-250	-253	0.00	4.15	1.67	4	0.56	4
-300	-302	0.00	4.74	1.91	4	0.64	4
-450	-452	0.00	6.56	2.64	4	0.88	4
-600	-603	0.00	10.32	4.16	4	1.39	4
Average							
50	50	0.00	1.05	0.42	4	0.14	4
100	100	0.00	1.94	0.78	4	0.26	4
150	150	0.00	2.70	1.09	4	0.36	4
200	201	0.00	3.36	1.35	4	0.45	4
250	253	0.00	4.01	1.62	4	0.54	4
300	301	0.00	4.55	1.83	4	0.61	4
450	451	0.00	6.17	2.49	4	0.83	4
600	600	0.00	8.74	3.53	4	1.18	4

Pressure: 4 Suction: 4 Average value: 4

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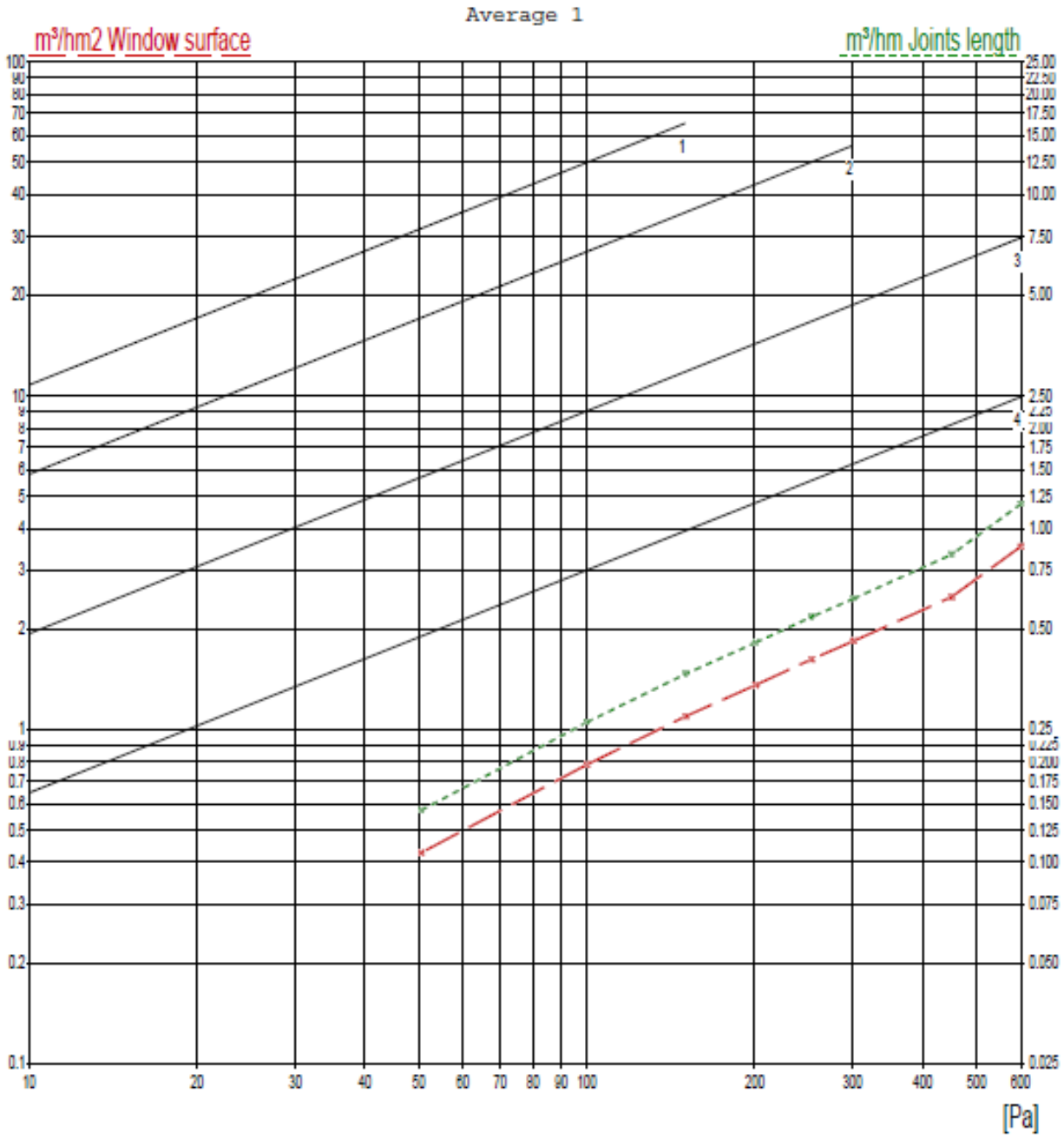
Air Permeabitity Average:



3 Conclusion

The tested construction product (window), marked by the client or manufacturer as trade mark: Veka System 10 and type: Casement Window, manufactured by: Window Warehouse meets the manufacturer chosen requirements from the European standard EN 14351-1 [1].

The test results exclusively relate to the tested objects.

Remark 1

When and if changes are made in production method and/or equipment, assessment according to this standard shall be reconsidered and re-tests shall be performed when the changes can lead to different specifications. The decision and responsibility lay with the manufacturer.

Remark 2

It was to the manufacturer's responsibility that the samples for initial type test are representative to the product range.

4 References

1 European standard EN 14351-1:2006+A2:2016 (E),
Windows and doors – Product standard, performance characteristics – Part 1: Windows and external pedestrian doorsets,
European Committee of Standardisation, September 2016.

2 Test results “89218289-10 ERCT 0766 Window Warehouse Veka Casement Ongoing BS 6375-1” by ERC Testing Ltd, Unit A8 (3), Pennington Court, Walter Leigh Way, Moss Industrial Estate, Leigh WN7 3PT, United Kingdom.

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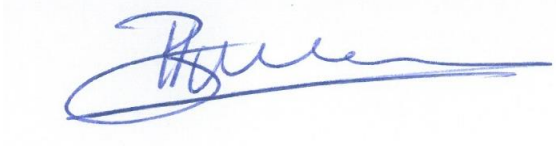
5 Signatures

Author	Signature
Mr M. Hackett ERC Testing Ltd	
Approved by	Signature
Mr. R. Brandhorst Senior Expert	

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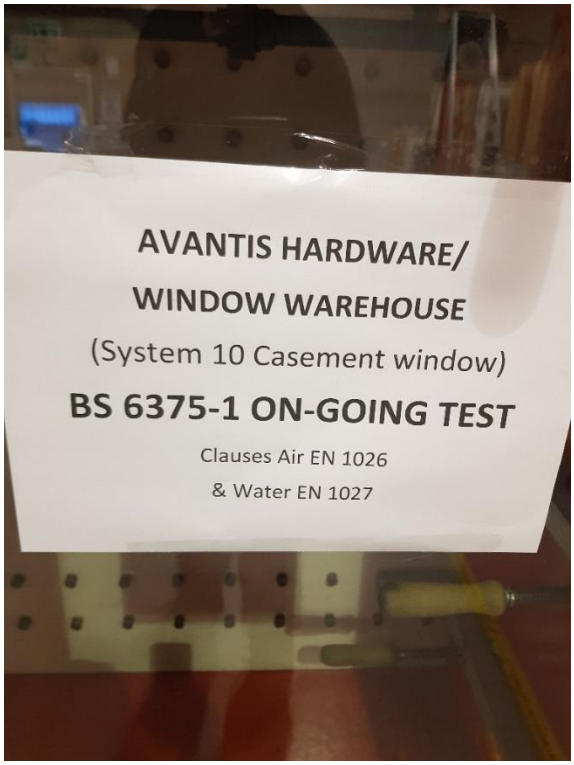
Appendix A, Pictures and drawings of the tested object(s)



(This is the end of this report).