

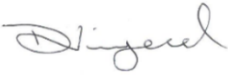
Test Report 3634873.
Smart Systems Limited
Incorporating Smart Extrusions

Introduction.

This report has been prepared by Errol Creary and relates to the activity detailed below:

Job/Registration Details	Client Details
Job number: 3634873 Job type: Testing Samples Submitted Start Date: 07/02/2022 Test type: Direct Sample ID: 10202020 Registration: NA Protocol: NA Quality system: NA Registration: NA Protocol: NA Quality system: NA	Smart Systems Limited Incorporating Smart Extrusions Arnolds Way Yatton BS49 4QN United Kingdom

The report has been approved for issue by David Vinyard – Senior Test Engineer

Approved For Issue	
	Issue Date: 24 February 2022

Objectives.

Direct test

Product Scope.

Visoglide PPlus Aluminium Patio slider

Report Summary.

The samples were received on 2 February 2022 and the testing was started on 4 February 2022 .

The samples submitted complied with the requirements of the test work conducted.

BS:6375:2015 Weather Type Test. (Deflection Test Only)

1 off fully glazed horizontal sliding patio door assembly with a standard threshold

(Sample ID No 10202020)

Date sample received: 2 February 2022

Test Results.

1. Wind Resistance The test sample met the requirements of the Specification, in respect of 6375-1:2015 + A1:2016., for Exposure Category CE2000 (2000Pa).

Sample Selection.

The samples submitted for tests were selected using the PCP Scheme Document Specification. Each sample was submitted for test mounted in a 75mm x 100mm timber subframe in accordance with the manufacturer's installation requirements. The test samples were manufactured and supplied by the client, and the test results apply only to the sample as received. The results in this report are only valid for the conditions on which the testing was conducted and for the specified products only. Parts list supplied by client but not verified by BSI.

Clause 5 Sequence of Tests.

The sequence of testing the samples followed that detailed in Clause 5 of BS 6375-1:2015 + A1:2016.

Clause 5 Performance Requirements.

The performance of each sample was assessed against the requirements detailed in Table 1 Exposure Categories and Classifications.

The results contained within this test report are valid only for the conditions under which the tests were conducted and for the specific range of doorsets.

Methods of Test.

1. **Wind Resistance**

The wind resistance of the samples was determined by the methods (P1, P2 and P3) given in BS 6375-1:2015 + A1:2016.

Description of Sample.

Sample Type -	Fully glazed horizontal sliding patio door assembly with a standard threshold		
Material -	Aluminium		
Construction -	Cleated		
Fittings -	Active Leaf (Master) - a two-point locking (two shoot bolt) espagnolette system, key lockable Handle 1* Sabinco cylinder and two rollers		
Glass -	Double glazed 4-20-4mm toughened glass sealed units		
Panel -	Not applicable		
Glass Retention System -	Internal beads and gaskets		
Weathersealing -	Double-sealed plastic weather strip		
Sample dimensions -	Overall length:	2300mm	Height: 2600mm
	Active leaf length:	1100mm	Height: 2500mm
	Inactive leaf length:	1100mm	Height: 2500mm
Date of test -	4 February 2022		
Laboratory temperature -	21.0°C		
Laboratory humidity -	41.0%RH		
Atmospheric pressure -	100.3kPa		
Test engineers -	K Huscroft and D Vinyard		

Visoglide Plus, Slim Interlock , Patio Door.

Outer Frame width	2300mm	Outer Frame Material	Aluminium
Outer Frame height	2600mm	Outer Frame Gasket	
Outer Frame Part Numbers		Gasket Type	Woolpile
Top	VG511	Manufacturer	Schlegel.
Bottom	VG511	Product Name	Woolpile with Fin
Lock Side	VG511	Product Code	ACVS033.
Hinge Side	VG511	Threshold	
Outer Frame section dimensions		Manufacturer	Smart Systems.
Width	52mm	Product name	Two Track Cover
Depth	117.5mm	Product Code	VG514
Reinforcing:		Materials	Aluminium
Manufacturer		Outer Frame Joint Method	
Product Name		Head	Cleat and Glue.
Product code		Foot	Cleat and Glue.
Material			

Leaf		Leaf Material:	Aluminium
Leaf Width:	2020mm	Leaf Gasket	
Leaf Height:	2500mm	Gasket type:	Woolpile.
Leaf Part Numbers:		Manufacturer:	Schlegel.
Top:	VG520	Product Name:	Woolpile with Fin.
Bottom:	VG520	Product Code	ACVS033.
Lock side:	VG520	Leaf Midrail:	NA.
Interlock Side	VG590, VG592, VG596.	Manufacturer:	
Leaf section size		Product name:	
Width:	VG520 . 51mm VG590 20mm. VG592 . 20mm	Product code:	
Depth:	VG520 . 74mm VG590 . 122mm. VG592 . 122mm.	Material:	
Reinforcing NA.		Leaf joint method	
Manufacturer:		Head:	Cleat and Glue Screw port to Interlock
Product Name:		Foot:	Cleat and Glue Screw port to Interlock
Product Code:			
Material:			
Bead			
Manufacturer:	Smart Systems.		
Product Name:	Visoglide Plus.		
Product Code:	VG560, VG594, VG565		
Material:	Aluminium		
Bead Size:	VG560. 12mm x 20mm VG594 . 12mm x 4mm VG565 . 12mm x 12mm.		

Visoglide Plus , Slim Interlock , Patio Door.

Glazing Unit		Glazing Gasket	
Manufacturer:	Cornwall Glass	Gasket Type:	EDPM
Inner Thickness:	6mm	Manufacturer:	Reddiplex.
Spacer Material:	Warm Edge Spacer.	Product Name:	E Gasket Wedge Gasket
Outer Thickness:	6mm.	Product Code	ACET841 ACW20038.
Unit Sizes:	1951mm x 2382mm	Glazing Clip	
Glazing Tape Details NA.		Manufacturer:	
Manufacturer:		Product Name:	
Product Name:		Product Code	
Product Code			

Hardware			Fixings	Quantity
Fixed Panel Support Blocks	ACVG544	Fitted to Outer frame.	ACET066	7
Glass supports	ACVG557	7 No Fitted to Fixed Panel ACET 076 fixings through sash into Outer Frame. 4 No Fitted to Sliding Sash.	ACET076	7. 4
Lock:	ACSZ041, 046.	BT Lock and Fixing Kit.	ACUN3524 , M5 x 30mm Machine Screw into ACG524 Fixing Plate.	1.
Cylinder:	ACCY3030NKS1.		M5 Machine Screw.	1
Handle:	ACSZ750,751	Sobinco Grip Handles.	ACUN3523 M6 Machine Screws.	1 Pair.
Sash Guides	ACVG528	Fitted to Top of Sash.	Clipped into Place.	8
Cylinder Support:				
Cylinder Escutcheon:				
Keeps:	ACSZ046	Sobinco keep set.	ACET060	1 Set.
Drip Bar				
Rollers	ACVG555	Adjustable Rollers.	ACET 060	2
Interlock Guard.	ACVG597.	Fitted into Interlocks at 500mm Centers. from Top and Bottom of Sash.		2
Glass Bonding	ACUN3610 ACUN3612	Glass Bonding Glue And Activator. To Interlock.		2 Tubes.
Cill Cover	VG575	Fitted to Base of Outer Frame.		1.
Drain Caps.	ACGSL045			4.
Anti Lift	ACVG592	Anti Lift Blocks fitted to Outer Frame.above Head of Sliding sash. Also Fitted to outer frame Above And Below center of Interlocks.		3 2.

Wind Load Resistance Test Results.

Clause 8 Resistance to Wind Load

P1 Deflection Test

Three positive pulses of 2200Pa were applied.

No visible failures or functional defects of the test sample were observed after wind loads were applied at a positive air pressure of 2000Pa.

Actual deflection – 7.60mm (maximum deflection allowed 8.15mm)

Deflection/span ratio 1/321 (maximum ratio allowed 1/300)

Three negative pulses of 2200Pa were applied.

No visible failures or functional defects of the test sample were observed after wind loads were applied at a negative air pressure of 2000Pa.

Actual deflection – 8.10mm (maximum deflection allowed 8.15mm)

Deflection/span ratio 1/301 (maximum ratio allowed 1/300)

P2 Repeated Pressure Test

No visible failures or defects of the test sample were observed after 50 cycles of repeated wind loads were applied at a positive air pressure of 1000Pa.

No visible failures or defects of the test sample were observed after 50 cycles of repeated wind loads were applied at a negative air pressure of -1000Pa.

P3 Safety Test

No parts of the test sample became detached and the test sample remained closed after a wind load safety test was applied at a positive air pressure of 3000Pa.

No parts of the test sample became detached and the test sample remained closed after a wind load safety test was applied at a negative air pressure of 3000Pa.

Date of test - 4 February 2022

Atmospheric pressure - 100.3kPa

Laboratory temperature - 21.0°C

Test engineers - K Huscroft and D Vinyard

Laboratory humidity - 41.0%RH

Test Sample.

Sample Id	ER Number	Description
1	10202020	Patio slider

Description of Test Sample.

Sample Description
1 off fully glazed horizontal sliding patio door assembly with a standard threshold

Test Requirements.

BS4873 door direct test

Clause	Requirements
Results table	BS4873 door direct test

Glossary of Terms.

PASS: Complies. Tested by BSI engineers at BSI laboratories.

PASS1: Complies. Witnessed by BSI engineers in manufacturers laboratory.

PASS2: Complies. Tests carried out by third party lab; results accepted by BSI.

PASS*: Report resulted in uncertainty and states that Compliance is more probable than non-compliance.

FAIL: Non compliance – Product does not meet the requirements of this clause.

FAIL*: Report resulted in uncertainty and states that Non-compliance is more probable than compliance.

N/A: Not applicable to design under consideration.

N/T: Not tested due to similarity to previously tested item; reference earlier test report.

Conditions of Issue.

This Test Report is issued subject to the conditions stated in current issue of 'BSI Terms of Service'. 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 BSI, who reserve the absolute right to agree or reject all or any of the details of any items or publicity for which consent may be sought.

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Where a statement of conformity is reported the decision rule is simple acceptance unless stated otherwise.

*** End of Report ***