

Test Report 3693775.

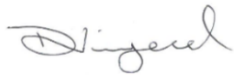
FrameXpress Limited

Introduction.

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

Job/Registration Details	Client Details
Job number: 3693775 Job type: Testing Samples Submitted Start Date: 01/06/2022 Test type: Audit retest Sample ID: 10203350 Registration: KM 505192 Scheme: BS 7412 / PAS 24 Protocol: PP 519 Scheme Mgr: Lorraine Balch	FrameXpress Limited Unit A1 - A5 Haybrook Industrial Estate Halesfield 9 Telford TF7 4QW United Kingdom

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

Approved For Issue	
	Issue Date: 10 June 2022

Objectives.

Retest for product certification

Product Scope.

Profile 22 PVC-U window

Report Summary.

The sample was received on 18 May 2022 and the testing was started on 9 June 2022.

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

This report refers to the failure highlighted in BSI Service Management Order 3375198.

PAS 24:2016 Audit.

Product Description.

1 off projecting side hung next to fixed window

(Sample ID No: 10203350)

Date Sample Received: 18 May 2022

Test Results.

- | | | |
|----|--------------------------------|--|
| 1. | Manipulation Test A | Previously assessed |
| 2. | Infill Removal
(Mechanical) | Previously assessed |
| 3. | Mechanical Loading | The test sample met the requirements of the Specification in respect of Clause 4.5 |
| 4. | Manipulation Test B | The test sample met the requirements of the Specification in respect of Clause 4.3 |
| 5. | Infill Removal
(Manual) | The test sample met the requirements of the Specification in respect of Clause 4.4 |

Clause 2 Sample Selection.

The sample submitted for tests was selected by the Client on behalf of BSI.

Assessment.

The assessment of the test sample followed the sequence detailed in Scheme Document PP519.

Clause 3 Test Apparatus and Sample Mounting.

The test apparatus used for the manual and mechanical tests is shown in figure 2 of this report. This apparatus meets the requirements of the Specification.

The test sample was submitted for test mounted in a 50 x 100mm timber subframe in accordance with the manufacturer's installation requirements. The test sample was manufactured by the client.

The results within this test report are valid only for the conditions under which the testing was carried out, and only for the specified products.

Description of Sample. (Security)

Sample type -	Projecting side hung next to fixed window		
Material -	PVC-U		
Construction -	Mitred, welded and grooved		
Fittings -	300mm Cotswold side hung stays A six-point locking Yale espagnolette system (four mushroom bolts and two shoot bolts) operated by a key locking handle 2 off pairs of hinge protectors 1 off run up blocks 1 off pair of cavity closing wedges		
Classification	W		
Glass -	Double glazed, 4-20-4mm toughened glass sealed units		
Glazing System -	Internal beads and gaskets		
Weathersealing -	Double-sealed plastic weather strip		
Sample Dimensions -	For information only (nominal sizes) Overall Size - Length: 1200mm Height: 1200mm Sash Size - Length: 560mm Height: 1140mm		

Description of Sample.

Works Details

Created By: mark r
Last Saved By: jim
Printed By: jim

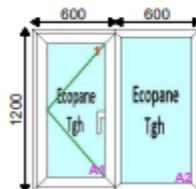
Customer Details

FRAMEXPRESS LTD

Job No: J2228323
Batch No: 1232
Ref: BSI Sample

Date Printed: 28 April 2022 11:20
Date Job Required: 15 March 2022
Required Week: 10

Load Code: 2211W2
Window No: 1 of 1
Location: Window 1



Basic Frame Size: 1200w x 1200h

1 - 1200w x 1200h
Viewed Outside
Style No: 16
'A' Rated

System Profile 22 - OPTIMA
Group White - Sculp Casement
Outer Frame (02) 60mm Outer White
Casement Sash (30) 75mm T Sash - White
Transom/Mullion Std T/M White
Reinforcement Std Window Rein
Main Handles Inline - WHITE
Main Hinges Std + Egress Easy SH
Main Lock Yale Shootbolt
Drainage CONCEALED
Finish1 White
Finish2 Sculpture
Bead 28mm Sculpture Bead White
Bead 28mm Sculptured Bead White
Gasket Pre Gasketed
Glass Type 4 Clear Tgh/20/4 Ecopane Tgh Black Warm Edge Argon

Reinforcement: Std Window Rein
Frame Weight: 38.14kg

Sash Extras:

CONTRACT REVIEW	[.....]	HANGING	[.....]
CUTTING	[.....]	BEAD	[.....]
ROUTING	[.....]	FINAL INSPECTION	[.....]
WELDING	[.....]	RE-WORK	[.....]
SASH PREP	[.....]		

P/Code	Short Code	Description	Position	Qty	Len1	Len2	E/P	Cut/
QS02	QS02-WH	(02) 60mm Sculpture Outer White	[A1] T/Outer	1	605w		✓	[...]
QS02	QS02-WH	(02) 60mm Sculpture Outer White	[A2] T/Outer	1	605w		✓	[...]
QS02	QS02-WH	(02) 60mm Sculpture Outer White	[A1] B/Outer	1	605w		✓	[...]
QS02	QS02-WH	(02) 60mm Sculpture Outer White	[A2] B/Outer	1	605w		✓	[...]
QS02	QS02-WH	(02) 60mm Sculpture Outer White	[A1] L/Outer	1	1205h		✓	[...]
QS02	QS02-WH	(02) 60mm Sculpture Outer White	[A2] R/Outer	1	1205h		✓	[...]
QS30	QS30-WH	(30) 75mm T Sculpture Sash White	Multiple	2	571w		✓	[...]
QS30	QS30-WH	(30) 75mm T Sculpture Sash White	Multiple	2	1144h		✓	[...]
QS11	QS11-WH	(11) 66mm Z Sculpture T/M White	[A1] Z/Mullion	1	1217h	1151h	<->	[...]
QX30/0.50		QX30 RCM Cut @ 500mm	Multiple	2	421w			[...]
QX30/1.00		QX30 RCM Cut @ 1000mm	Multiple	2	994h			[...]
AEQR10S/3		ANG Steel Reinf Shape 31x12	[^0] R/TM	1	1097h			[...]
QS50		28mm Sculptured Bead White	Multiple	1	6240mm		✓	[...]
ScrewPack		Misc Screw Pack	[A1] Misc	1				[...]
7520.776		70mm Corner Protector	[A1] Misc	4				[...]
XGU		***** GLASS UNITS *****	[A1] Misc	2				[...]
7722.11		OPTIMA Clip Fit Bridge Packer	[A1] Misc	8				[...]
MK3IL-35/WHA		Total MK3 Inline 35 WHITE	[A1] Handle	1				[...]
SP312E2C	S EASY 12C	Cotswold Egress E/Clean SH 12"	[A1] Hinge	1				[...]
SG035		GT Stay Guard (Frame)	[A1] Hinge	2				[...]

Description of Sample. Continued

Printout: Works Details - Customer: FRAMEXPRESS LTD - Job No: J2228323 - Location: Window 1

SG035	GT Stay Guard (Sash)	[A1] Hinge	2	[...]
QM01	Riser Block White	[A1] Hinge	2	[...]
SS01	GT Sash Seal Spring (Sash)	[A1] Hinge	1	[...]
SS02	GT Sash Seal Wedge White (Frame)	[A1] Hinge	1	[...]
YSGE722-19	Yale Gearbox 22 BS 7.7 Cam (Ext)	[A1] Lock	1	[...]
YWR4-07R-19	Yale Shootbolt Ext Rod 4 (970-1120)	[A1] Lock	2	[...]
YWK248-19	Yale Mushroom Keep OPTIMA	[A1] Lock	2	[...]
YWK448-19	Yale Combi Corner Keep OPTIMA LH	[A1] Lock	1	[...]
YWK648-19	Yale Combi Corner Keep OPTIMA RH	[A1] Lock	1	[...]
W	White	Finish	1	[...]
S	Sculpture	Finish	1	[...]

P/Code	Short Code	Position	Qty	Size	Description
T4C/20/T4ECOBWEArgon		Pane:A1(S)	1	448x 1021	4 Clear Tgh/20/4 Ecopane Tgh Black Warm Edge Ai
T4C/20/T4ECOBWEArgon		Pane:A2(F)	1	539x 1112	4 Clear Tgh/20/4 Ecopane Tgh Black Warm Edge Ai

Test Results.

Performance Requirements

Assessment

Clause 4.3 Manipulation Test A

Previously assessed

Clause 4.4 Infill Medium Removal Test

Clause 4.4.2 Manual Test

The sample was mounted vertically in the test rig as described in Clause 3.

The sample was assessed using the tools specified in A.2.1 Group A and A.2.2 Group B.

A craft knife was used to cut holes in the outside of the profile and a 6mm chisel was used to attempt to remove the internal beads.

No entry gained within the time allowed.

Pass

Date of test – 9 June 2022

Test engineer(s) – E Creary and D Vinyard

Laboratory temperature – 20.7°C

Clause 4.4.3 Mechanical Test

Previously assessed

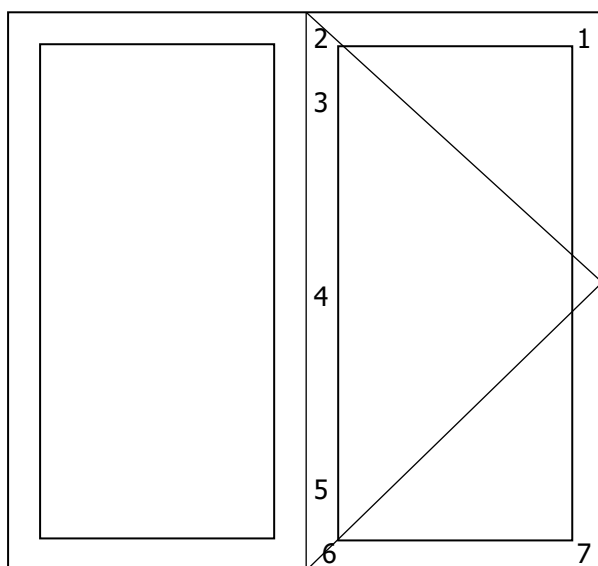
Test Results (Continued).

Clause 4.5 Mechanical Loading Test

The sample was mounted vertically in the test rig as described in Clause 3.

The test was carried out in accordance with the procedures detailed in Clause 4.5.2 using the apparatus detailed in Clause 3.

Diagram of load points



C.4.5.2 Loading Procedure

First Sequence

Point of application of load

1 - Hinge / Hinge Protector (right head)

Standard loading case used: 1 / 8

Load applied in plane: 1.0kN along the edge in the direction to disengage the hinge protector

Load applied perpendicular to plane: 3.0kN applied for ten seconds

Load applied in plane: 1.0kN towards the opposite stay

Load applied perpendicular to plane: 3.0kN applied for ten seconds

Test Results (Continued).

C.4.5.2 Loading Procedure (Continued)

First Sequence (Continued)

Point of application of load

2 - Corner / Shoot Bolt (mullion head)

Standard loading case used: 5 / 6

Load applied in plane: 1.0kN along the edge in the direction to disengage the bolt
Load applied perpendicular to plane: 3.0kN applied for ten seconds

Loads applied in plane: 1.0kN at right angles to the edge and towards the opposite edge
Load applied perpendicular to plane: 3.0kN applied for ten second

3 - Mushroom Bolt (upper mullion)

Standard loading case used: 7

Load applied in plane: 1.0kN along the edge in the direction to disengage the bolt
Load applied perpendicular to plane: 3.0kN applied for ten seconds

Loads applied in plane: 1.0kN at right angles to the edge and towards the opposite edge
1.0kN at the mullion to oppose the above load
Load applied perpendicular to plane: 3.0kN applied for ten seconds

4 - Mushroom Bolt / Mushroom Bolt (centre mullion)

Standard loading case used: 7 / 7

Load applied in plane: 1.0kN along the edge in the direction to disengage the bolt
Load applied perpendicular to plane: 3.0kN applied for ten seconds

Load applied in plane: 1.0kN along the edge in the direction to disengage the bolt
Load applied perpendicular to plane: 3.0kN applied for ten seconds

Loads applied in plane: 1.0kN at right angles to the edge and towards the opposite edge
1.0kN at the mullion to oppose the above load
Load applied perpendicular to plane: 3.0kN applied for ten seconds

Test Results (Continued).

C.4.5.2 Loading Procedure (Continued)

First Sequence (Continued)

Point of application of load

3 - Mushroom Bolt (lower mullion)

Standard loading case used: 7

Load applied in plane: 1.0kN along the edge in the direction to disengage the bolt

Load applied perpendicular to plane: 3.0kN applied for ten seconds

Loads applied in plane: 1.0kN at right angles to the edge and towards the opposite edge

1.0kN at the mullion to oppose the above load

Load applied perpendicular to plane: 3.0kN applied for ten seconds

6 - Corner / Shoot Bolt (mullion sill)

Standard loading case used: 5 / 6

Load applied in plane: 1.0kN along the edge in the direction to disengage the bolt

Load applied perpendicular to plane: 3.0kN applied for ten seconds

Loads applied in plane: 1.0kN at right angles to the edge and towards the opposite edge

Load applied perpendicular to plane: 3.0kN applied for ten seconds

Test Results (Continued).

C.4.5.2 Loading Procedure (Continued)

Assessment

First Sequence (Continued)

Point of application of load

7 - Hinge / Hinge Protector (right sill)

Standard loading case used: 1 / 8

Load applied in plane: 1.0kN along the edge in the direction to disengage the hinge protector

Load applied perpendicular to plane: 3.0kN applied for ten seconds

Load applied in plane: 1.0kN towards the opposite stay

Load applied perpendicular to plane: 3.0kN applied for ten seconds

No entry gained

Pass

Date of test – 9 June 2022

Test engineer(s) – E Creary and D Vinyard

Laboratory temperature –20.7°C

C.4.3 Manipulation Test B

Screws were exposed on both the hinge protectors; they were both removed but was unable to open the window with sufficient force applied

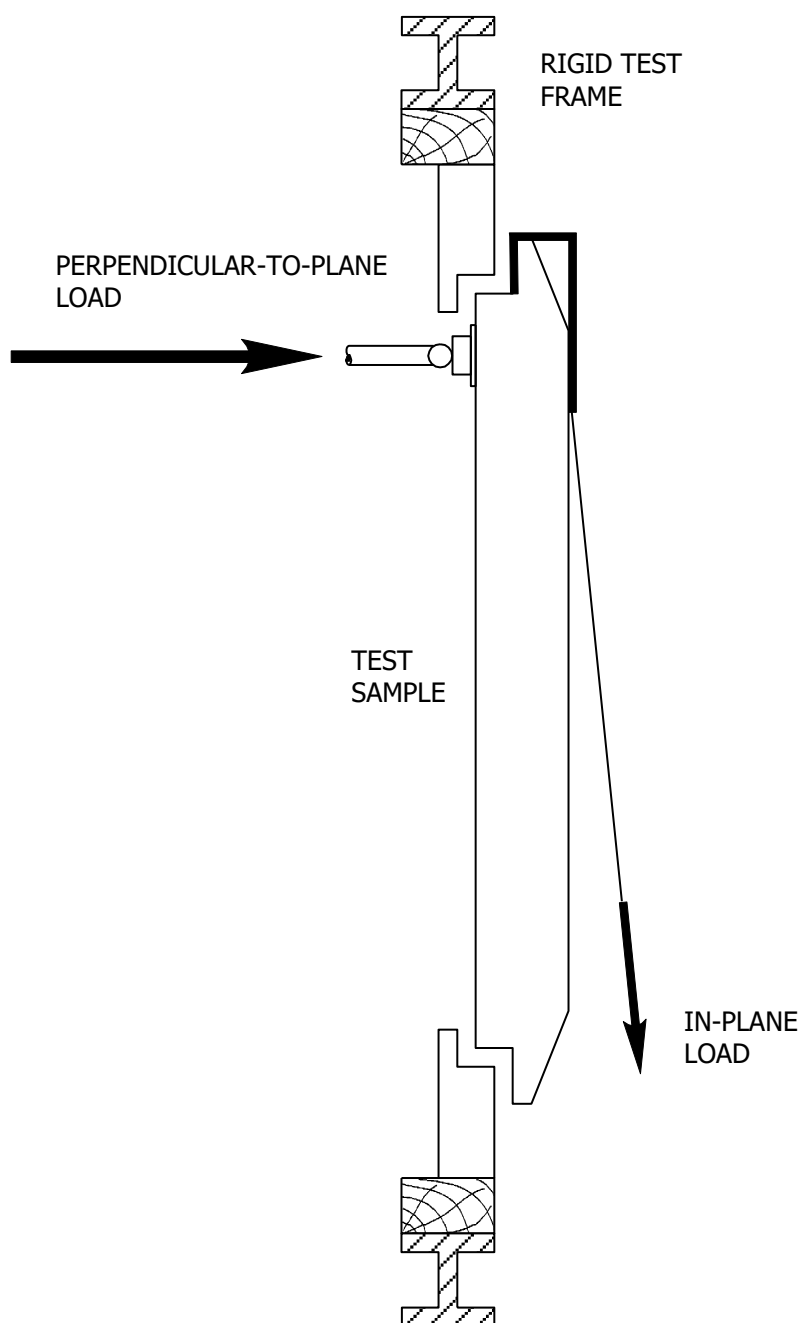
Date of test – 9 June 2022

Test engineer(s) – E Creary and D Vinyard

Laboratory temperature – 20.7°C

Pass

Figure 2.



Photograph of Sample.



Test Sample.

Sample Id	ER Number	Description
1	10203350	PVC-U window

Description of Test Sample.

Sample Description
1 off projecting side hung next to fixed window

Test Requirements.

PAS24 audit retest

Clause	Requirements
Results table	PAS24 audit retest

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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*** End of Report ***