Testing of:

**PVCu French doors** 

To the requirements of:

PAS 24:2016

Prepared for:

**Technical Department** 

Yale DWS

**School Street** 

Willenhall

West Midlands

**WV13 3PY** 

**Date:** 14/11/2017



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#### 1 Introduction

This report details the results of mechanical load testing conducted on PVCu French Door set in accordance with PAS 24:2016. The Door was manufactured and supplied by CJR Glass & Glazing

The test program was performed at the request of *CJR Glass & Training* technical department.

Only testing to Clause B.4.5 Mechanical Loading and Annex A was specified.

Testing was carried out on the 14<sup>th</sup> of November 2017 and performed on Yale's In-house load test rig using UKAS calibrated load cell & scales.



## 2 Test Details

### **Client Details**

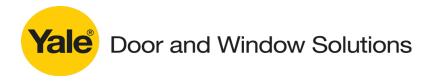
<b>Company Name</b>	CJR Glass and Glazing
Address:	Unit 3 Ashley Crescent Southampton SO19 9NA

### **Contact**

Name	Clive Ret
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Email	clive@cjrdoubleglazing.com
Mobile	07970 248277
Fax	

## **Door Sample Deatails**

Product Type (pvc, timber, Ali)	Upvc		
Manufacturer	CJR Glass and Glazing		
Door Dimensions	As above		
Profile Manufacturer	Veka		
Profile Codes	Frame 101161, Sash 105168		
Slab Manufacturer	n/a		
Infill Type	n/a		
Reinforcement	Steel		
Reinforcement Codes	Frame 113378, Sash 113374 and 113375		
Fabrication Method	Welded		
Fabrication frame			
Threshold	Standard		



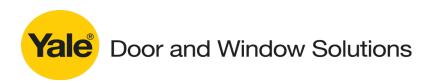
# **Test Details (Cont.)**

### **Hardware to Sash**

Lock System	Lockmaster
Lock Fixings	4.3 x 25mm
Hinges	SFS
Hinge Fixings	As supplied
Hinge Protectors	Trojan
Protector Fixings	4.3 x 25mm
Handle	Window Ware Kore
Cylinder	Yale 3*
Additional Hardware	
Additional Fixings	

### **Hardware to Frame:**

Keep Set	Lockmaster 1 piece		
Keep Fixings	3.9 x 45mm and 4.3 x 25mm		
Shootbolt Keep	Yale		
Shootbolt Keep Fixings	3.9 x 32mm		
Hinge Fixings	As supplied		
Protector Keeps	Trojan		
Protector Keep fixings	4.3 x 25mm		
Additional Hardware			
Additional Fixings			



### 3 Test Results

Test Figures: Perpendicular to Plane Load 4.5kN

Arrows indicate direction of 1.5kN Parallel to plane load.

Loading Point		1 <sup>st</sup>	2 <sup>nd</sup> Load	Results	Comments
Loading Foilit		Load	Direction		
		Directi			
		on			
Top Hinge	1	<b>⇒</b>	N/A	Pass	
Middle hinge	2	<b>&gt;</b>	N/A	Pass	
<b>Bottom Hinge</b>	3	<b>→</b>	N/A	Pass	
Bottom S/bolt Slave	4	<b>↑</b>	N/A	Pass	
Bottom S/bolt Master	5	<b>^</b>	N/A	Pass	
Bottom Roller	6&7	1	<b>\( </b>	Pass	
Bottom Hook	8&9	•	<b>⇔</b>	Pass	
Roller	10&11	<b>↑</b>	<b>⇔</b>	Pass	
Centre Hook	12&13	<b>↑</b>	<b>\( \rightarrow</b>	Pass	
Roller	14&15	<b>^</b>	<b>( )</b>	Pass	
Top Hook	16&17	•	<b>⇔</b>	Pass	
Top Roller	18&19	<b>^</b>	<b>⇔</b>	Pass	
Top S/bolt Master	20	•	N/A	Pass	
Top S/bolt Slave	21	1	N/A	Pass	
Top Hinge	22	<b>(</b>	N/A	Pass	
Middle Hinge	33	<b>(</b>	N/A	Pass	
<b>Bottom Hinge</b>	24	<b>(</b>	N/A	Pass	
	l	l	<u> </u>		<u> </u>

**B.4.5 MECHANICAL LOADING TEST:** RESULT = Pass



#### Test

A.3- Security Hardware & Cylinder test

A3.2-Part 1

Curved jaw grips were used to remove the handle back plate.

The craft knife was then used to increase the aperture around the cylinder.

Curved jaw grips used to attack the cylinder guard.

Following 3 minutes the cylinder remained secure

**Result: Pass** 

A.3.3- Part 2

3.9mm self-cutting screw was inserted into the keyway.

The screw was then levered with the torque wrench until the screw head fractured.

The curved jaw grips were used to remove the remainder of the screw allowing a second 3.9mm screw to be inserted into the keyway.

The second screw was then levered with the torque wrench for the remainder of the test.

Total test time 3 minutes, the cylinder remained secure

**Result: Pass** 



### **Test Sample supplied**



THE TESTING AND RESULTS IN THIS REPORT ARE OFFERED IN GOOD FAITH. THE TESTING WAS CONDUCTED TO THE RELEVANT PARTS OF THE STANDARD AS INDICATED. THE RESULTS SHOWN ARE FOR REFERENCE ONLY.

YALE DWS IS NOT A **UKAS** ACCREDITED TEST HOUSE.

Issued on behalf of YALE DWS:

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# **End of Report**



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