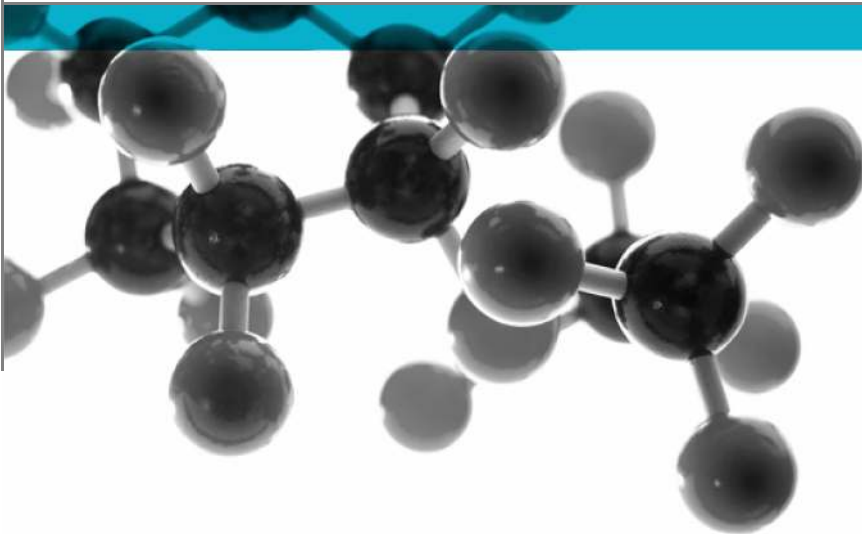


# STS202

Issue 6: September 2015



## Test of: Ultra Multipoint Locking Doorset

**Burglary resistance requirements for construction products including doorsets, windows, curtain walling, security grilles, garage doors and roller shutters.**

A Report To:  
Latham's Steel Security Doorsets Ltd  
35-37 Hainge Road  
Tividale  
Birmingham

Document Reference:  
WIL 378225

Date: 23/08/2017

Copy: 1

Issue No.: 1

Page 1

Testing  
Advising  
Assuring

## TEST CONCLUSIONS

Samples of:  
 Manufacturer Latham's Steel Security Doorsets Ltd  
 Product Single Doorset  
 Model Ultra Multipoint Locking Doorset

have been tested in accordance with: STS 202 Issue 6: September 2015  
 By Exova (UK) Ltd, a UKAS accredited Testing Laboratory (No. 0621)

At Key Industrial Park, Fernside Rd, Willenhall, West Midlands, WV13 3YA.  
 Results and comments as detailed below:

Clause No.	Description	Compliance
5	Resistance Class – BR2	YES
6	Test requirements and procedures	YES
9	Requirements for hardware	YES
11	Labelling and Conformity	NO
12	Installation instructions	NO

Testing carried out outside the scope of UKAS approval  
 No inferences can be made regarding performance against other requirements of this standard

Tests marked “ N/A ” are not applicable to the sample under test.  
 Tests marked “N/T” were not applied to the sample under test

## AUTHORISATION

Tests performed by: Chris Bryan, Test Engineer  
Joshua O'Brien, Trainee Test Engineer

Report issued by: Mark Garfield, Business Development Engineer



Signed

Date 22<sup>nd</sup> August 2017

For and on behalf of Exova (UK) Ltd

Report authorised by: Mark West, Door & Window Laboratory Manager



Signed

Date 22<sup>nd</sup> August 2017

For and on behalf of Exova (UK) Ltd

Report issued: 23 August 2017

### NOTE.

These tests are not covered by the Laboratory UKAS accreditation schedule.

Tests marked NT were not tested

Tests marked NA are not applicable to the product on test.

The laboratory has tested the product supplied by the client as sampled in accordance with their own requirements

This report shall not be reproduced except in full, (and then only as permitted by copyright laws), without written approval from Exova (UK) Ltd

Document No.: WIL 378225

Page No.: 3 of 20

Author: M Garfield

Issue Date: 23/08/2017

Client: Latham's Steel Security  
Doorsets Ltd

Issue No.: 1

<b>CONTENTS</b>	<b>PAGE NO.</b>
TEST CONCLUSIONS .....	2
AUTHORISATION.....	3
TEST DETAILS.....	5
TEST PROCEDURE .....	6
INITIAL OBSERVATIONS.....	7
TEST SPECIMEN .....	9
SCHEDULE OF COMPONENTS .....	12
PERFORMANCE CRITERIA & TEST RESULTS .....	16
CONCLUSIONS .....	19
LIMITATIONS .....	19
REVISION HISTORY .....	20

## TEST DETAILS

### CLIENT DETAILS

Company name Latham's Steel Security Doorsets Ltd,  
Address 35 -37 Hainge Road  
Tividale  
Birmingham  
B69 2NY

Contact Chris Hardy

### ORDER DETAILS

Order number Security test 2  
Dated 04/01/2017

### SAMPLE DETAILS

Outer frame 950 x 2020 mm  
Opening leaves 915 x 1970 mm  
Material Steel  
Details of Hardware  
Hinges 5no. Yongkang Bosslong Industrial & Trading Co Ltd Z-304 lift off Z-shape hinges  
Hinge protection 4no. Zhejiang Shenjiang Doors Industry Co., Ltd DB14/15 Solid screw in dog bolt  
Lock Zhejiang Hongli Locks Co. (2 dead bolts top and bottom, 3 in centre and 3 shoot bolts at top)

Cylinder Eurospec MPX6+ 3\* cylinder  
Handles Hongli Lock HL#6101 Lever Handles

### TEST DETAILS

Test specification STS 202 Issue 6 : September 2015  
Full test Yes  
Test to clauses All

Sample received 16/12/2016  
Test started 05/01/2017  
Test completed 05/01/2017

Special Test requirements  
Other reports to be used in conjunction with this report

---

Document No.:	WIL 378225	Page No.:	5 of 20
Author:	M Garfield	Issue Date:	23/08/2017
Client:	Latham's Steel Security Doorsets Ltd	Issue No.:	1

## TEST PROCEDURE

---

<b>Introduction</b>	<p>This test report should be read in conjunction with the technical schedule STS 202 Issue 6: September 2015 Burglary resistance requirements for construction products including doorsets, windows, curtain walling, security grilles, garage doors and roller shutters.</p> <p>The specimens were judged on their ability to comply with the performance criteria as required in STS202.</p>
<b>Instruction To Test</b>	<p>Initial requirement was for a burglar resistance level BR2.</p>
<b>Test Specimen Construction</b>	<p>A description of the test construction is given in the Schedule of Components. The description is based on a detailed survey of the specimens and information supplied by the sponsor of the test.</p>
<b>Installation</b>	<p>The sample was supplied mounted within a timber sub-frame of nominal section 75mm x 100mm fitted flush with the exterior face, in accordance with the clients fitting instructions.</p> <p>A representative of Lathams Security Doorsets Ltd witnessed the test.</p>
<b>Sampling</b>	<p>The samples were not independently witnessed or selected and were provided direct from the test sponsor.</p>
<b>Test Climate</b>	<p>The sample was conditioned in the laboratory in the range 10-30 °C and 25-75% humidity.</p> <p>The temperature and humidity in the lab was maintained in the range 15.5-20.3°C and 28.4-54.5% humidity for the duration of the test.</p>

---

## INITIAL OBSERVATIONS

---

**The internal face  
of the sample**



---

**The External face  
of the sample**



**Sample hinge**



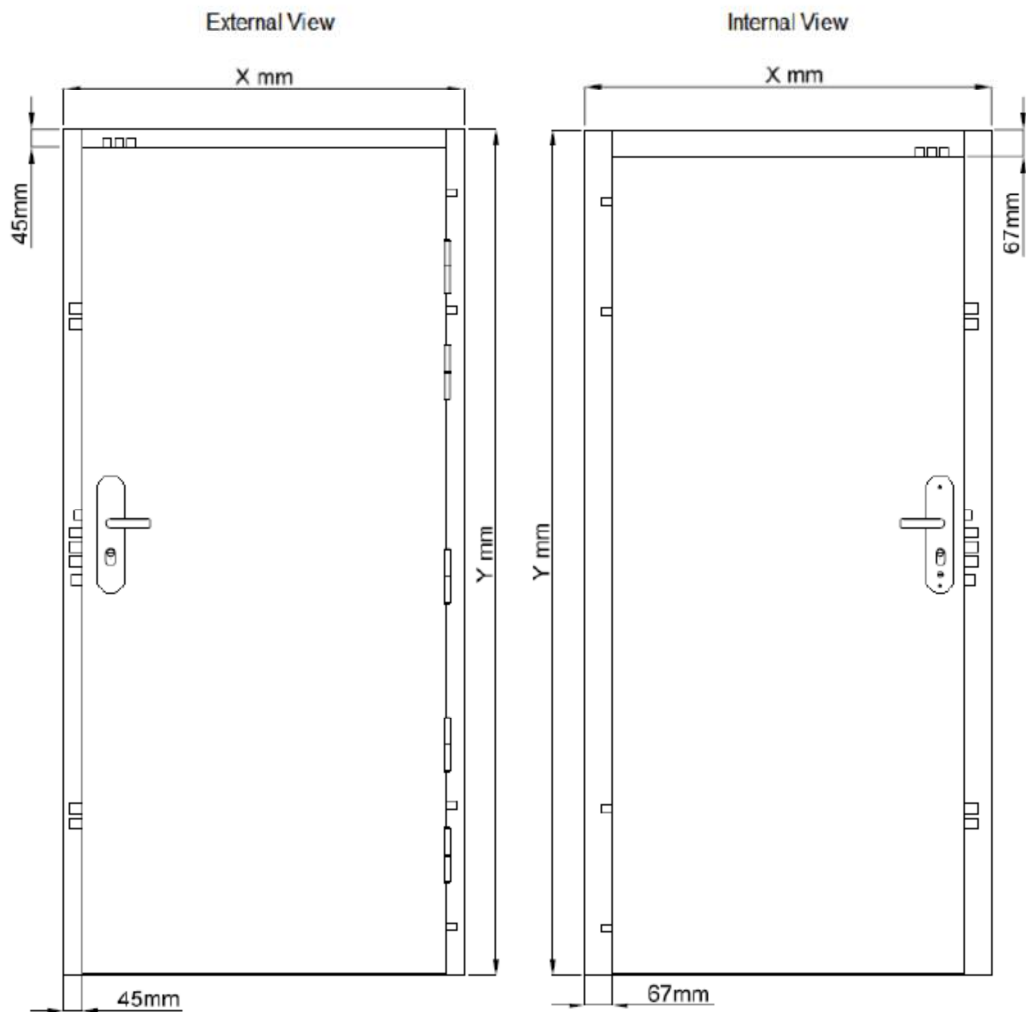
**Sample dead bolts**





## TEST SPECIMEN

Figure 1- General Elevation of Test Specimen (External Face)



Do not scale. All dimensions are in mm

Document No.: WIL 378225

Page No.: 9 of 20

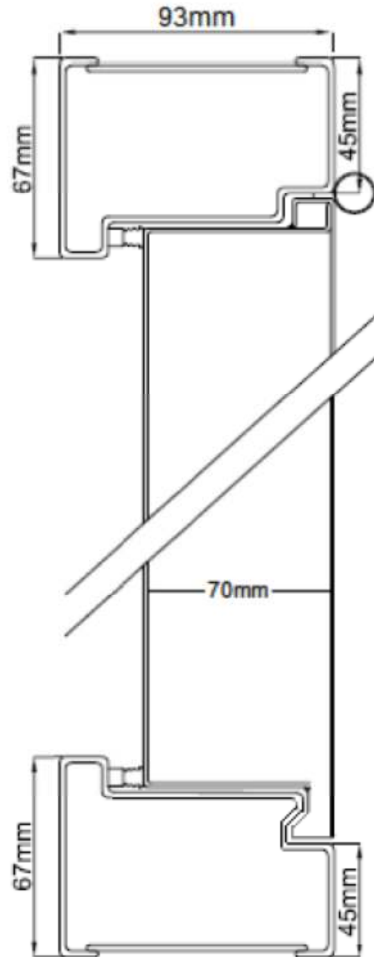
Author: M Garfield

Issue Date: 23/08/2017

Client: Latham's Steel Security  
Doorsets Ltd

Issue No.: 1

Figure 2 – Horizontal section



Do not scale. All dimensions are in mm

Document No.: WIL 378225

Page No.: 10 of 20

Author: M Garfield

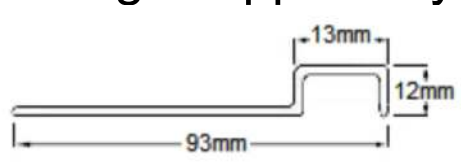
Issue Date: 23/08/2017

Client: Latham's Steel Security  
Doorsets Ltd

Issue No.: 1

**Figure 3 – Vertical section**

Drawings to be supplied by client /  
No drawings supplied by client



Do not scale. All dimensions are in mm

Document No.:	WIL 378225	Page No.:	11 of 20
Author:	M Garfield	Issue Date:	23/08/2017
Client:	Latham's Steel Security Doorsets Ltd	Issue No.:	1

## SCHEDULE OF COMPONENTS

---

(Refer to Figures 1 to 3)  
 (All values are nominal unless stated otherwise)  
 (All other details are as stated by the sponsor)

### Variants

None

<u>Item</u>	<u>Description</u>
<b>1. Door frame head</b>	
Supplier	: Zhejiang Shenjiang Doors Industry Co., Ltd
Profile code	: B332/70mm
Material	: Steel
Grade	: Galvanised cold rolled steel
Gauge	: 2.0mm
Overall section size	: 67 x 93mm
Rebate	: 60mm
Fixing jamb to head joints	: Continuous weld 45mm internal, 35mm top, 25mm external
<b>2. Door frame jamb</b>	
Supplier	: Zhejiang Shenjiang Doors Industry Co., Ltd
Profile code	: B332/70mm
Material	: Steel
Grade	: Galvanised cold rolled steel
Gauge	: 2.0mm
Overall size	: 67 x 93mm
Rebate	: 60mm
<b>3. Door frame threshold</b>	
Supplier	: Zhejiang Shenjiang Doors Industry Co., Ltd
Profile code	: B332/70mm
Material	: Steel
Grade	: Galvanised cold rolled steel
Gauge	: 2mm
Overall size	: 12 x 93mm frame depth
Fixing method	: Continuous weld 3 on either side
<b>4. Door frame weather seal</b>	
Supplier	: Yongkang Bosslong Industrial & Trading Co. Ltd
Reference	: #306-11 x 2 & #305-15 x 2
Material	: Flame Retardent PU + Expanded graphite
Fixing method	: Self-Adhesive
Position	: All four edges
Continuity	: Uninterrupted by hardware

<u>Item</u>	<u>Description</u>
<b>5. Door leaf facings</b>	
Leaf supplied by	: Zhejiang Shenjiang Doors Industry Co., Ltd
Overall leaf size	: 70mm thick
Material	: Galvanised Steel
Thickness	: 1mm, formed in to trays and welded together.
Density	: 7850kg/m <sup>3</sup> (stated)
Core section size	: 68mm
Corner fixing method	: Weld
i. type	: Spot Weld
ii. size	: 3mm on average
iii. quantity	: 12 hinge side, 12 latching side, 6 top, 5 bottom.
<b>6. Door leaf core</b>	
Material	: Wuyi NiuNiu Fireproof Board Material Co., Ltd
Density	: 260kg/m <sup>3</sup> (stated)
Thickness	: 68mm
Fixing into rebate	: Bonded to door leaf facings with adhesive
<b>7. Door edge lippings</b>	
Position	: Folded into door leaf interlocking trays
Material	: As 1
Thickness	: As 1
Overall size	: 10mm x 15mm interlocking jemmy lip
<b>8. Door leaf weather seals</b>	
Description	: Intumescent seal
Manufacturer	: Yongkang Bosslong Industrial & Trading Co. Ltd
Reference	: #306-11x2 & #305-15x2
Fixing method	: Self-Adhesive
Position	: All four edges
Continuity	: Uninterrupted by hardware
<b>9. Hinges</b>	
Supplier	: Yongkang Bosslong Industrial & Trading Co Ltd
Description	: Lift off Z Shape
Reference	: Z-304
Primary material	: Grade #304 Stainless Steel
Quantity	: 5
Size of knuckle	: 18 x 130mm
Size of blades	: 60 x 55mm
Fixing hinge to doorleaf	
i. type	: Machine Screw
ii. size	: M6 x 12mm
iii. quantity	: 4
Fixing hinge to frame	
i. type	: Machine Screw
ii. size	: M6 x 12mm
iii. quantity	: 5

---

Document No.:	WIL 378225	Page No.:	13 of 20
Author:	M Garfield	Issue Date:	23/08/2017
Client:	Latham's Steel Security Doorsets Ltd	Issue No.:	1

**Item**

**Description**

Position of hinge

- i. top hinge : 170mm from top of door to top of hinge
- ii. 2<sup>nd</sup> hinge : 630mm from top of door to top of hinge
- iii. 3<sup>rd</sup> hinge : 905mm from top of door to top of hinge
- iv. 4<sup>th</sup> hinge : 1270mm from top of door to top of hinge
- v. bottom hinge : 1730mm from top of door to top of hinge

**10. Dog bolts**

- Supplier : Zhejiang Shenjiang Doors Industry Co., Ltd
- Description : Solid screw in dog bolt
- Reference : DB14/15
- Material : Steel
- Quantity & position : 1 above and below top hinge and 1 above and below bottom hinge equalling 4 total.

Overall size

- i. dog bolt : 14 x 15mm
- ii. retaining ring / keeper : 24mm

**11. Sash Lock**

- Supplier : Zhejiang Hongli Locks Co.
- Description : Sash lock, solid large bolt
- Reference :
- Position : 1045mm from bottom of door to centre of spindle/lock
- Fixings :
- i. type : Machine Screw
- ii. size : M4 x 10mm
- iii. quantity : 4

**12. Side Locks and Shoot Bolts**

- Supplier : Zhejiang Shenjiang Doors Industry Co., Ltd
- Description : Internal rods and spring side locks
- Reference : #26-15mm
- Position : 320mm from top of door to top of lock  
1480mm from top of door to top of lock
- Fixings :
- i. Type : Machine Screw
- ii. Size : M4 x 10mm
- iii. Quantity : 2

**13. Cylinder**

- Supplier : Carlisle Brass
- Description : Eurospec 3\* Cylinder
- Kitemark : 597142
- Reference : MPX6+
- Fixings :
- i. type : Machine Screw
- ii. size : M5 x 65mm
- iii. quantity : 1

**Item**

**Description**

**14. Lever handles**

Supplier	:	Hongli Lock
Description	:	Lever Handles
Reference	:	HL#6101
Material	:	Stainless Steel
Fixings		
i. type	:	Machine Screw + Thread Extension
ii. size	:	M5 x 50mm + 50mm double female extension
iii. quantity	:	2

## PERFORMANCE CRITERIA & TEST RESULTS

Clause	Requirement	Result	Pass/fail
<b>4. General Requirements</b>			
4.1	The client shall supply detailed information about the product to be tested.	Information supplied by the client prior to testing.	<b>Pass</b>
4.2	The size and range of products shall be agreed in advance.	Product range and sized agreed by the client.	<b>Pass</b>
4.3	The test samples shall be fully functioning, and be fitted to the sub frame in accordance with the manufacturer's installation instructions.	Samples fully functioning and fitted in accordance with manufacturers installation instructions.	<b>Pass</b>
4.4	The attack face and required burglar resistance rating shall be agreed with the client.	Attack face was defined as the external face. Initial requirement was for a rating of BR2.	<b>Pass</b>
4.5	An agreed number of samples shall be supplied.	2no. test samples supplied.	<b>Pass</b>
6.6	The sample shall be checked for damage prior to testing and any damage recorded.	Sample undamaged prior to testing.	<b>Pass</b>
	The sample shall be closed and locked, and tested in the most secure position.	Specimen closed and locked.	<b>Pass</b>
6.7 Pre test	Every conceivable combination of tool and attack method shall be used to identify the most productive method of attack for the sample.		
<b>BR1 Tool kit 1 Resistance time 1 min</b>	<p>Attacks were made to try and grip and remove the hinge for 1 minute, but entry was not achieved.</p> <p>Attacks were made to try and grip and remove the hinge for 1 minute, but entry was not achieved.</p> <p>Attacks were made to try and grip and remove the hinge for 1 minute, but entry was not achieved.</p> <p>Attacks were made to try and cut through the hinge for 1 minute, but entry was not achieved.</p> <p>Attacks were made to lever on the hinge for 1 minute, but entry was not achieved.</p> <p>Attacks were made to try and lever between the hinges for 1 minute, but entry was not achieved.</p> <p>Attacks were made to try and stab through the door using the screw driver for 1 minute, but entry was not achieved.</p>		<b>PASS BR1</b>

Document No.:	WIL 378225	Page No.:	16 of 20
Author:	M Garfield	Issue Date:	23/08/2017
Client:	Latham's Steel Security Doorsets Ltd	Issue No.:	1



Clause	Requirement	Result	Pass/fail
	<p>Attacks were made to try and stab through the door using the knife for 1 minute, but entry was not achieved.</p> <p>Attacks were made to try and pull the door open for 14 seconds, but entry was not achieved.</p> <p>Attacks were made to try and lever the door open from the bottom corner of the locking edge and work up for 1 minute, but entry was not achieved.</p> <p>Attacks were made to try and lever between the frame and leaf at the top of the door for 1 minute, but entry was not achieved.</p> <p><b>Option 1</b>  <b>Hoopley handle 6101 with Eurospec 3star cylinder.</b>  Attacks were made to try and grip and remove the handle and then snap the cylinder for 1 minute, but entry was not achieved.</p> <p><b>Option 2</b>  <b>Hoopley handle 6101 with standard cylinder.</b>  Attacks were made to try and remove the handle and manipulate the cylinder. Entry was not gained.</p>		<p><b>PASS</b> <b>BR1</b></p> <p><b>PASS</b> <b>BR1</b></p>
<b>BR2</b> <b>Tool Kit 2</b> <b>Resistance</b> <b>time 3 mins</b>	<p>Attacks were made to try and remove and cut through the hinge for 3 minutes, but entry was not achieved.</p> <p>Attacks were made to try and cut through the hinge pin and lever on the hinge for 3 minute, but entry was not achieved.</p> <p>Attacks were made to try and lever the hinge from the door leaf for 3 minute, but entry was not achieved.</p> <p>Attacks were made to try and hammer the wedge between the leaf and door frame at the bottom locking corner for 3 minute, but entry was not achieved.</p> <p>Attacks were made to try and hammer the nail bar and wedge between the leaf and frame between the two locking point for 3 minutes, but entry was not achieved.</p> <p>Attacks were made to try and hammer the wedge under the bottom corner of the door and then lever up the locking edge for 3 minutes, but entry was not achieved.</p> <p>Attacks were made to try and lever the bottom corner of the locking edge out and crimp the anti jammy bar lip for 1 minute 55 seconds, but entry was not achieved.</p> <p>Attacks were made to try and hammer through the door leaf and pierce the inner skin for 3 minutes but entry was not achieved.</p> <p>Attacks were made to try and peel back the outer skin of the door leaf for 3 minutes, but entry was not achieved.</p> <p><b>Option 1</b>  <b>Hoopley Handle 6101 with Eurospec 3 star cylinder</b>  Attacks were made to try and remove the handle and then remove the cylinder for 3 minutes, but entry was not achieved.</p>		<p><b>PASS</b> <b>BR 2</b></p> <p><b>PASS</b> <b>BR2</b></p>
<b>6.10 Main test</b>	The burglar resistance attack method used by the test team during the main test shall be the one most likely to gain entry in their opinion, as determined during the pre-test.		

Clause	Requirement	Result	Pass/fail
<b>BR 2 Tool kit 2 Resistance time 3 min</b>	<b>The main test was not carried out as the sample meets the requirements of BR2 when fitted with:</b>  Hooply Handle 6101 with Eurospec 3 star cylinder		<b>Pass BR2</b>
<b>9 Requirements for hardware</b>	Any locking cylinders should meet the requirements of a one star rating to TS007, including the general vulnerability of the cylinder, if applicable.	Evidence Supplied  BSI report KM 597142	<b>PASS</b>
<b>11 Labelling and Conformity</b>	The product should be fitted with a tamper evident identification label.	Pre certification prototype only. No labels supplied as yet. Customer advised of labelling requirements for production.	<b>FAIL</b>
	The label should be fitted so it is visible when the sample is open but not necessarily when closed.	Pre certification prototype only. No labels supplied as yet. Customer advised of labelling requirements for production.	<b>FAIL</b>
	The label shall include the following information:-  The WCL Mark or Certisecure logo The certificate number A unique serial number Optionally certificate holders name The technical specification number (STS202) The security classification (BR2)	Pre certification prototype only. No labels supplied as yet. Customer advised of labelling requirements for production.	<b>FAIL</b>
<b>12 Installation instructions</b>	The product shall be supplied with full installation instructions.	Pre certification prototype only. Customer advised of installation instruction requirements for production.	<b>FAIL</b>

## CONCLUSIONS

---

**Evaluation against objective** The sample as provided by the client was subjected to burglar resistance testing in accordance with STS 202: Issue 6: September 2015 and achieved the requirements for a burglar resistance level of BR2.

**Observations & comments**

---

## LIMITATIONS

---

**Limitations** The results relate only to the behaviour of the specimens of the element of construction under the particular conditions of test. They are not intended to be the sole criteria for assessing the potential performance of the element in use, nor do they reflect the actual behaviour in use.

**Range of assemblies covered by this report** It is our opinion that the range of assemblies covered by this report are limited to the following

- Assemblies with identical hardware fitted no further apart than in the tested assembly
- Assemblies of the same or smaller overall dimensions to the tested assembly

**Uncertainty of Measurement** The uncertainties of measurements calculated for a confidence level of 95% throughout these tests are within the limits of these tolerances.

The standard specifies the following tolerances

- Forces:  $\pm 2\%$
  - Distances:  $\pm 1\text{mm}$  for tape measures  $\pm 0.01\text{mm}$  for dial gauges
  - Times:  $\pm 5\text{s}$
-

## REVISION HISTORY

<b>Issue No :</b>	<b>Re - Issue Date :</b>
<b>Revised By:</b>	<b>Approved By:</b>
<b>Reason for Revision:</b>	

<b>Issue No :</b>	<b>Re - Issue Date :</b>
<b>Revised By:</b>	<b>Approved By:</b>
<b>Reason for Revision:</b>	

**END OF REPORT**