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SECURITY TECHNICAL SCHEDULE

STS202

BURGLARY RESISTANCE REQUIREMENTS FOR CONSTRUCTION PRODUCTS INCLUDING DOORSETS, WINDOWS, CURTAIN WALLING, SECURITY GRILLES, GARAGE DOORS, ROLLER SHUTTERS, FENCES AND BARRIERS

Warringtonfire Testing and Certification Limited
Reg. Office: 10 Lower Grosvenor Place, London, United Kingdom, SW1W 0EN
Co. Reg. No. 11371436

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ISSUE STATUS AND AMENDMENT

i) If this is a controlled copy of the Security Technical Schedule, the organisation to which it has been issued will be provided with details of any changes in accordance with the amendment procedure below. The control status of the document is identified on page 1. Controlled copies are identified as such and are issued as working documents. Uncontrolled copies are issued for information only, will not be updated and should, therefore, not be treated as working documents.

ii) From here on in, references to Warringtonfire Testing and Certification Limited will be shown as Warringtonfire.

iii) Each page of the document is identified by a page number, issue number and date. Where an amendment is made, the revised page will bear a new issue number and date of amendment. Original, un-amended pages of the document will remain as Issue 1.

iv) Where an amendment requires an extra page to be inserted, this is numbered with the number of the preceding page but with the addition of a letter suffix, e.g. 10A will be inserted between pages 10 and 11 and 10B will follow 10A. The new pages are dated in the normal way.

v) Any amendment to this document will be identified on the Amendment Page, which will be re-issued to holders of controlled copies with the amended sections/pages. Revised pages shall be inserted in place of existing pages or between existing pages and superseded pages shall be discarded. Where a significant number of amendments is made to this document the entire document will be re-issued under a new issue number. In such cases holders of the document shall destroy the previous issue.

vi) The Amendment Page and the relevant revised pages will be produced by Warringtonfire, following agreement with the Warringtonfire Sector Liaison Group, and issued to the holders of each controlled copy of the document, together with an acknowledgment slip (document transmittal) which shall be signed and returned to Warringtonfire to confirm that the document has been amended. It shall be the responsibility of the nominated representative of the organisation holding a controlled copy of the document to ensure that the document is maintained in an up to date condition at all times.

vii) To ensure that a permanent record is available of all amendments, Warringtonfire maintains a file of all superseded pages which are marked with the date of withdrawal. The record is held on file indefinitely in order to allow Warringtonfire to determine the past requirements of the scheme at any point in time.

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AMENDMENT PAGE

To ensure that each controlled copy of this Security Technical Schedule contains a complete record of amendments, the Amendment Page is updated and issued with each set of revised/new pages of the document. Details of the procedures for amending this document are given in section 1 of this document.

Amendment			**Discard**		**Insert**	
No	**Date**	***Sections Changed**	**Page(s)**	**Issue no**	**Page(s)**	**Issue no**
1	15/03/2011	All	1-24	2	1-25	3
2	24/02/2015	All	1-25	3	1-27	4
3	24/07/2015	Updated to new format, also to include references to BS EN ISO/IEC 17065. Management Council renamed to Impartiality Committee	1-25	4	1-30	5
4	04/09/15	Website details amended to warringtoncertification.com	30	5	30	6
5	22/04/16	Name change from WCL to Exova UK Limited trading as Warrington Certification	All	6	All	7
6	28.02.19	Name change to Warringtonfire Testing and Certification Limited	All	7	All	8
7	07/10/20	Included fences and amended toolkits	All	8	All	9

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SECURITY TECHNICAL SCHEDULE (STS 202)

BURGLARY RESISTANCE REQUIREMENTS FOR CONSTRUCTION PRODUCTS INCLUDING DOORSETS, WINDOWS, CURTAIN WALLING, SECURITY GRILLES, GARAGE DOORS, ROLLER SHUTTERS, FENCES AND BARRIERS

FOREWORD

This Security Technical Schedule forms part of a series of controlled documents, which comprise the Warringtonfire Enhanced Security & General Performance product certification scheme. It has been prepared in accordance with the requirements of ISO EN 17065 for product certification bodies. In addition to this Schedule the other controlled documents, which form part of the scheme, are:

- STS 200 General Requirements for Certification of Enhanced Security & General Performance Products.
- Warringtonfire Enhanced Security & General Performance Scheme (Level 2) Quality Manual and related quality procedures.
- Certificate(s) of Approval in the CS 000 series, together with any annexes.
- Documentation required from the manufacturer in support of product certification.

This Security Technical Schedule replaces specification WCL2 & all previous versions of STS202. The aim of the scheme is to provide independent certification of burglar resistance for construction products including doorsets, windows, curtain walling, security grilles, garage doors, roller shutters, fences and barriers. For situations where intruders are more likely to use stealth and avoid making noise less consideration is given to noise, certification to STS222 may be considered.

In order to achieve Warringtonfire Enhanced Security & General Performance Certification in accordance with STS 202, the manufacturers must also comply with the scheme requirements detailed in STS 200. This Security Technical Schedule (STS 202) identifies test requirements only.

Each product conforming to the requirements of this Security Technical Schedule shall be classified according to the classes identified in Clause 5 of this document.

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1. SCOPE

This Security Technical Schedule defines the technical requirements for classification of burglary resistance and general performance.

This schedule is intended to cover but is not limited to doorsets, windows, curtain walling, security grilles, garage doors, roller shutters, fences, barriers and other construction products where burglar resistance is a requirement.

This schedule is intended to cover security performance, as well as general or material specific performance including weather, operation and strength requirements.

When fire performance is required, this shall be assessed via separate Certifire approval against existing technical schedules for fire performance, and 'dual scope' Certisecure certificates shall always refer to the relevant Certifire certificate.

This schedule does not provide for certification against European standards EN 14351-1, prEN 14351-2, EN 16034 for doors & windows and EN 13241-1 for industrial and commercial doors & gates.

2. REFERENCES

EN Standards are published by National Standards body and may include National Annexes. For Warringtonfire purposes the definitive version of any EN standard is that published by BSI and prefixed 'BS EN'.

References contained in STS 200 may also be relevant.

BS 644	Timber windows and doorsets. Fully finished factory-assembled windows and doorsets of various types. Specification
BS 3621	Thief resistant lock assembly. Key egress
BS 4873	Aluminium alloy windows and doorsets. Specification
BS 6375-1	Performance of windows and doors. Classification for weather tightness and guidance on selection and specification
BS 6375-2	Performance of windows and doors. Classification for operation and strength characteristics and guidance on selection and specification
BS 6375-3	Performance of windows and doors. Classification for additional performance characteristics and guidance on selection and specification
BS 6510	Steel-framed windows and glazed doors. Specification
BS 7412	Specification for windows and doorsets made from unplasticized polyvinyl chloride (PVC-U) extruded hollow profiles
BS 8529	Composite doorsets. Domestic external doorsets. Specification
BS 8621	Thief resistant lock assembly. Keyless egress

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BS EN 1303	Building hardware. Cylinders for locks. Requirements and test methods
EN 1906	Building hardware. Lever handles and knob furniture. Requirements and test methods
BS EN 12209	Building hardware. Locks and latches. Mechanically operated locks, latches and locking plates. Requirements and test methods
EN 13241-1	Industrial, commercial and garage doors and gates. Product standard. Products without fire resistance or smoke control characteristics
EN 14351-1	Windows and doors - product standard, performance characteristics. Part 1: windows and external pedestrian doorsets without resistance to fire and/or smoke leakage characteristics)
*prEN 14351-2	Windows and doors - product standard, performance characteristics. Part 2: internal pedestrian doorsets without resistance to fire and/or smoke leakage)
*~~pr~~EN 16034	Pedestrian doorsets, industrial, commercial, garage doors and windows - product standard, performance characteristics - fire resistance and/or smoke control characteristics
ISO EN 17065	Conformity assessment. Requirements for bodies certifying products, processes and services
STS 200	General requirements for certification of enhanced security and general performance products
STS 201	Enhanced security requirements for doorsets to satisfy the requirements of PAS 24
STS 204	Enhanced security performance for windows to satisfy the requirements of PAS 24
STS 205	Requirements for burglary resistance of security cabinets, security enclosures and safe-deposit boxes
STS 222	Stealth burglary resistance requirements for construction products including doorsets, windows, curtain walling, security grilles, garage doors, roller shutters, fences and barriers
STS 225	Stealth burglary resistance requirements for construction products including security cabinets, security enclosures and safe-deposit boxes

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3. TERMS AND DEFINITIONS

Attack side
The exposed face of the test specimen detailed for attack (which may be the side internal or external to the building envelope) that is ultimately specified by the client.

Burglar resistance
To resist forced entry, using physical force and predefined tools.

Hinged or pivoted
Products that have a solid or rigid leaf and the main movement is rotational.

Inspection time
Time taken by the test team during the test to examine the test specimen and to decide on the attack point / method.

Main test
Testing carried out for certification purposes following the pre-test, at the maximum burglar resistance level identified during the pre-test using the most productive attack method determined during the pre-test or by other methods.

Maximum test time
The combination and accrued sum of:

- Resistance (working) time
- Rest time, tool change time & inspection time.

Pre-test
Testing carried out for exploratory purposes prior to the main test, including all burglar resistance levels up to and including the level specified by the client.

Resistance (working) time
Test time taken by the test engineer to carry out the burglar resistance test, in which tools are used to manipulate or attack the specimen. Does not include rest time, tool change time and inspection time.

Rest time
Time taken by the test engineer when performing the burglar resistance test to recover for well-being and safety reasons.

Roller shutter
Shutter that has movable interconnected elements that travels over a roller or barrel to open or close.

Security grill
Fixed or moveable bars with gaps greater than 25mm, which provide protection for openings.

Sliding
Products that have a solid or rigid leaf and the main movement is translational (horizontal, vertical or parallel).

Sub-frame
Surrounding frame in which the test specimen is mounted (for example doors, windows and shutters)

Substrate
Item that a test specimen is mounted to (for example fences & barriers)

Test specimen
Complete full working construction ready for test

Test rig
Steel framed construction with movable steel supports, into which the test specimen (fitted within its sub frame) can be mounted.

Tool change time
Time taken by the engineer to exchange or replace a tool during testing.

Toolset
Defined set of tools allocated for use in each resistance class

Topping
Any device or system fitted additionally to the top of a wall, fence or barrier designed to deter climbing, including but not limited to rotating toppings, anti-climb spikes and barbed or razor wire that could be injurious to the attempted burglar.

4. GENERAL REQUIREMENTS

4.1. Pre-test information

Before the commencement of any testing, the client (applicant) shall supply detailed information about the product to be tested including the following.

a) Name and address of the manufacturer if different from the applicant.
b) Detailed drawings of the test specimen.
   i) Cross sectional details.
   ii) Position of any special protection.
   iii) Assembly of the product, detailing weld points, fasteners etc.
   iv) Location details of all hardware and any protection or reinforcements used.
   v) The materials and thicknesses used in construction of the product.
   vi) List of hardware items and their reference numbers for products fitted to the test specimen and/or to be considered for assessment.
c) Manufacturer's installation instructions.
d) A detailed list of any dangerous substances.
e) Evidence shall be supplied to attest that any cylinders are third party approved for general vulnerability i.e. Kitemarking or equivalent

4.2. Test specimens

The size and range of the products to be covered shall be agreed in advance of any testing and selection of samples.

The test samples supplied for testing shall be fully functioning products complete with sub-frame/substrate, hardware and accessories. The test samples shall be secured into the sub-frames/substrate simulating the weakest method as per the manufacturers installation instructions including any installation gaps at the maximum allowed (gaps should be packed or filled with mastic with the least quantity as appropriate as per the installation instruction).

The attack face shall be agreed with the client (applicant) and the required level of security rating.

An agreed number of test specimens will be supplied.

The sub-frame supporting the test specimen shall be metal tube 120mm x 120mm x 5mm or timber construction 100mm x 75mm. Any sizes other than this to be agreed with the test laboratory prior to testing. This information will form part of the final report.

4.3. Fences and barriers

Fences/barriers shall have a minimum height of 2 metres at level BR1 and BR2 increasing to 2.5m at BR3 and 3.0m at BR4 and BR6, and are expected to maintain their burglary resistance performance at any position between the bottom of the product and this minimum height.

Resistance to climbing over and resistance to tunnelling under is not assessed by this technical schedule, although it is expected that when products are installed due consideration is made to adjacent structures (step-ups) or substrates that would facilitate climbing over or tunnelling under.

Security toppings of fences/barriers are not assessed by this standard, but it is expected that an additional topping is be required for fences/barriers approved at BR4 and above. Any topping shall be installed additional to the minimum height of the fence/barrier. When fences or barriers are installed on a gradient the minimum height shall be maintained at all positions along the length of the product.

NOTE: UK LAW CONCERNING FENCES WALLS & GATES Injurious toppings should not be used at heights below 2400mm when bordering a public highway as per Highways Act Section 164

Resistance class (BR)	Minimum height (m)	Toppings required
BR1	2.0	No
BR2	2.0	No
BR3	2.5	No
BR4	3.0	Yes
BR5	3.0	Yes
BR6	3.0	Yes

5. CLASSIFICATION

Certification of hinged, pivoted, folding or sliding doorsets and windows, curtain walling, security grilles, garage doors, shutters and fences in accordance with the requirements of this schedule is designed to satisfy current UK requirements. Other security requirements for UK domestic applications are defined in STS 201 for doorsets & STS 204 for windows.

This technical schedule does not cover the classification of individual components such as glass, infill materials, locks or other security hardware in their own right.

Products tested in accordance with standards and procedures other than those specified in STS 202 will not be considered for certification against this technical schedule.

The classification shall be as follows:

Example:

Security	Weather	Strength	Material Specific	Fire
STS202 BR2	BS6375-1 800	BS6375-2&3 Medium Duty	BS4873	Relevant TS document
(mandatory)	(if applicable) *	(if applicable) *	(if applicable) *	(optional)

Weather, strength and material specific classification in accordance with these standards do not apply to curtain walling, security grilles, shutters, fences and barriers and these products will be classified on their security performance only.

5.1. Category 1 – Security (mandatory performance)

Shall be in accordance with STS202 and tested in accordance with Clause 7. The classification levels are as follows: (NPD is not an option)

STS202 BR1	Passed STS202 at burglar resistance level BR1
STS202 BR2	Passed STS202 at burglar resistance level BR2
STS202 BR3	Passed STS202 at burglar resistance level BR3
STS202 BR4	Passed STS202 at burglar resistance level BR4
STS202 BR5	Passed STS202 at burglar resistance level BR5
STS202 BR6	Passed STS202 at burglar resistance level BR6

All tests shall be conducted fully in accordance with the appropriate grades of resistance detailed in STS 202.

Resistance class (BR)	Tool set	Resistance time (min)	Maximum test time (min)
BR1	TK1	1	10
BR2	TK2	3	15
BR3	TK3	5	20
BR4	TK4	10	30
BR5	TK5	10	30
BR6	TK6	10	30

Resistance classes BR1 & BR2
Classes BR1 and BR2 address the level of attack normally associated with casual or opportunist burglars. These attacks result from an opportunity presenting itself with no regard to the reward it may bring. Burglaries covered by these classes are likely to avoid unnecessary risk and tools used are common hand tools and levers as well as physical force, and are loosely based on low risk, domestic properties.

Resistance classes BR3 & BR4
Classes BR3 and BR4 address the level of attack associated with the more practiced burglar, who has some knowledge of the likely reward, and as a result is prepared to make significant noise and take risks, and is equipped with heavier duty tools more suited to a prolonged attack. Burglaries covered by these classes are based on medium risk, commercial properties

Resistance classes BR5 & BR6
Classes BR5 and BR6 are associated with the more experienced and professional type of burglar, who are more focused and have knowledge of the likely reward it will bring. The attack is usually planned with knowledge of the construction products with noise not being an issue. The tools used are often power tools. Burglaries covered by these classes are high risk, high security properties.

Note: Regardless of type of attack the test is attempting to replicate, every possible attack method identified shall be employed. The term opportunist, casual, experienced and professional burglar relates to the tool kit carried and is not intended to limit the decision-making ability and approach to testing of the test team.

5.2. Category 2 – Weather performance (if applicable)

The classification for weather performance of windows & doorsets shall be in accordance with BS6375-1. The classification levels are as follows: (NPD is only an option for products other than windows or doorsets, or when the BS6375-1 test cannot be applied to a doorset due to an inherent feature such as louvre panels where the free passage of air is intentional and as such a differential pressure cannot be applied. In all other cases a minimum rating of 800U should be applied)

NPD	No performance determined
BS6375-1 800U	UK exposure category 800U, with wind class A2 (doorsets only)
BS6375-1 800X	UK exposure category 800X with air class 1, water class 2A, wind class A2 (doorsets only)
BS6375-1 800	UK exposure category 800, with air class 2, water class 3A, wind class A2
BS6375-1 1200	UK exposure category 1200, with air class 2, water class 3A, wind class A3
BS6375-1 2000	UK exposure category 2000 with air class 2, water class 5A, wind class A5
BS6375-1 2000+	UK exposure category 2000+ with air class 2, water class 7A, wind class AEXXXX

5.3. Category 3 – Mechanical Strength (if applicable)

The classification for operating forces of windows & doorsets shall be in accordance with BS6375-2 and BS6375-3 Annex A & C. The classification levels are as follows: (NPD is only an option for products other than windows or doorsets)

NPD	No performance determined
BS6375-2&3	Performance in accordance with BS6375-2 and BS6375-3 Annex A & C for windows
BS6375-2&3 Medium duty	UK category of use Medium in accordance with BS6375-2 and BS6375-3 Annex A & C
BS6375-2&3 Heavy duty	UK category of use Heavy in accordance with BS6375-2 and BS6375-3 Annex A & C
BS6375-2&3 Severe duty	UK category of use Severe in accordance with BS6375-2 and BS6375-3 Annex A & C

5.4. Category 4 – Material Specific (if applicable)

The classification for material specific properties of windows & doorsets shall be in accordance with BS 6375-3. The classification levels are as follows: (NPD is only an option when no relevant material specific standard exists, for example unglazed steel doorsets. It is expected in this case that the guidance in the most relevant material specific standard is followed as closely as possible)

NPD	No performance determined
BS644	Performance in accordance with BS644 for timber windows & doorsets
BS4873	Performance in accordance with BS4873 for aluminium windows & doorsets
BS7412	Performance in accordance with BS7412 for PVC windows & doorsets
BS6510	Performance in accordance with BS6510 for steel windows & glazed doorsets
BS8529	Performance in accordance with BS8529 for composite doorsets

5.5. Category 5 – Fire (only applicable to dual scope certificates)

The classification for fire performance shall be in accordance with the relevant technical schedule (such as TS10 for non-metallic door leaves or TS12 for metallic door leaves).

A separate Certifire certificate shall exist, and the scope of certification of the Certisecure certificate and Certifire certificate shall be such that all the requirements of both the fire certification and security and general performance certification are maintained. Any updates to either the fire certificate or the security certificate shall be considered for impact on the security performance, general performance and fire performance by a competent certification engineer.

Product specifications contained within both the Certifire and Certisecure certificates will be aligned and must have the same key components.

The relevant CF number of the complementary Certifire certificate shall be referenced on the front page of the certificate, and the front page heading and certificate number on subsequent pages shall be highlighted in red background to clearly distinguish the dual-scope nature of the Certisecure certificate.

6. SAMPLE SELECTION OF PRODUCTS

Samples shall be selected as specified in STS200. Samples for audit testing shall be selected or witnessed in production. Samples for initial type testing shall be selected or witnessed in production, the results of tests conducted prior to application may, at the discretion of Warringtonfire, be used in complete or partial substitution of the above on the basis that sampled test data is generated at the first available opportunity.

7. BURGLAR RESISTANCE TEST REQUIREMENTS AND PROCEDURES

7.1. Test facility

Test evidence shall be generated by a laboratory recognised by Warringtonfire as defined in STS 200.

The laboratory test apparatus shall consist of a rigid steel frame with moveable steel supports in which test specimens of various dimensions can be mounted. The frame shall not deflect more than 5mm in any normal plane under test conditions.

Where it is impractical to install test samples in the laboratory, sample sizes exceed the available test rig, or where a test rig installation is not indicative of a real life installation (for example fences or barriers), testing may be carried out by representatives of the test laboratory onsite at the clients premises or other location to be agreed in advance with the test team. Where testing cannot be carried out indoors, the test area shall in the opinion of the test leader be clean, safe and free from undue extremes of weather and climate or any other factors that could detrimentally influence the result of the test. If any factors change or become apparent during the test, the test leader may abandon the test if he feels any of the above compromises the safety of the test team or the validity of the test result.

7.2. Test recording

If testing is recorded with a video recorder for the purposes of laboratory use, the recording shall not be released to the client, published or publicly shown without the agreement of all involved parties and will be kept for future reference in case of any subsequent changes to the specimen.

7.3. Test commencement

The main purpose of the test is to evaluate the burglar resistance class of the product when it is in its closed & locked (fully secure) condition unless otherwise specified by the client. If the test is carried out and the product classified in any other condition this shall be noted in the test report.

7.4. Test team

The test team shall be a minimum of 2 test engineers. There will be a team leader who will be in overall charge and additional test engineers who will perform the test work on the specimen as directed to do so by the team leader.

The team leader will keep a record of the test progress on the test record sheet and keep track of the timings. The team leader may choose to swap roles with a test engineer at any time during the test. The team leader is responsible for the test and for determining the final classification of the product.

Only one member of the test team can attack the specimen at any one time.

7.5. Test process

The test specimen shall be mounted in the sub-frame, in accordance with the clause 4 and the manufacturer's installation instructions prior to testing.

The adequacy of the installation/fixing method into the sub frame is assessed in this technical schedule. It is assumed that the substrate onto which the specimen is fitted provides a resistance to attack at least equivalent to that afforded by the specimen itself.

Testing is carried out with full constructional knowledge of the specimen, its fixings and security devices. The test specimen shall be visually examined for conformity with the details supplied by the client. Some non-destructive pre-testing may be carried out by the test team to establish weak and vulnerable areas.

The test specimen shall be checked for any damage prior to testing and any damage discovered shall be recorded. The test specimen shall be closed and locked. The direction of opening for each locking option (points) shall be noted.

The test-team may utilise steps, platforms or scaffold towers to attack the product above floor level. The time taken to erect platforms or scaffold towers shall not form part of the maximum test time to ensure safety of the installation.

7.6. Test limitations

Resistance to electrical manipulation is not tested, other than by attack methods possible using the tools defined within this technical schedule, including but not limited to exposing and damaging/shorting out of circuitry, cutting of wires in an attempt to cut the power to electronic or magnetic locks (It is recommended that electronic components are also tested and approved to relevant standards).

7.7. Pre test

Attempts shall be made to force open the specimen or to create an accessible opening by targeting a weak or vulnerable area. This shall be done within the resistance time allowed with the toolkit or toolkits appropriate to the BR grade required.

Pre-testing is carried out prior to the main test, and consists of the test team utilising every conceivable combination of tool and attack method in an attempt to identify the most productive method of attacking the specimen, at the same time attempting to disregard any methods deemed to be futile by the team leader.

Pre-tests are used to prove the conformance of the product to lower resistance classes in a progressive manner and are applied progressively starting at BR1 and working up to the grade of security requested by the client or until failure occurs.

The test team systematically employ a range of different attacks (a combination of test methods and techniques) including those that may at first glance be deemed ineffective, with the purpose of identifying the most productive attack for use in the main test. This test has no overall time limit although each attack is carried out with regard to the resistance time appropriate for the resistance class tested.

Although cumulative damage effects between different attacks are to be avoided, in some cases this will be inevitable, and the test team may require additional samples to continue pre-testing.

The test procedure, the tools used and the time taken for each attack during the pre-test shall be recorded to form part of the final report.

7.8. Main test

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, using the toolkit or toolkits allowed for the grade of security requested by the client or the maximum resistance class identified during the pre-test.

This method is repeated as a means of eliminating the effect of any cumulative damage caused during the pre-test and is ultimately used to determine the final classification of the product.

If no productive attack method is identified in the pre-test, then it is not always necessary to carry out a main test.

Testing time is strictly controlled and must not exceed the resistance (working) time or the maximum test time.

The test procedure, the tools used, and the time taken during the main test shall be recorded to form part of the final report.

7.9. Failure criteria

The specimen is deemed to have failed if the specimen opens whilst under test, or an accessible gap is created in the test specimen to allow a 500mm long cylindroid with an elliptical shape of 380mm x 225mm to pass through freely.

7.10. Test report

The test report shall include at least the following information.

a) The issue and date of this technical schedule
b) The name and address of the applicant
c) The name and address of the manufacturer if different from the applicant
d) The sample delivery date, the start and end date of the test
e) The atmospheric conditions for laboratory testing and the location of testing including details of any testing taking place away from the test laboratory
f) Details of any sampling process that took place prior to testing including a copy of the sampling report if available
g) Details of any damage to the specimen prior to testing and whilst under testing conditions
h) Subframe fitted including fixings and any packing materials used, and any deviation from manufacturers standard fitting instructions
i) Overall sizes of the test specimen, any opening leaves and infill panels

j) Comprehensive details of the test specimen, construction drawings, materials, thicknesses, densities of timber, grade and gauge of metal, wall thicknesses of extrusions, corner fixing details including adhesives, infill materials and thicknesses, glazing details and sizes etc.
k) Comprehensive details of all hardware fitted including position, supplier/manufacturer, material, fixings and their classification against EN product standards (if applicable).
l) Photos of the test sample and all significant design features, hardware items, markings or labels.
m) Additional test report numbers to cover the general vulnerability of locking cylinders will be added to the final report.
n) Locking condition(s)
o) Attack face as defined by the client
p) List of tools used (as given below)
q) Resistance time recorded and the final classification achieved in terms of BR resistance class and details of any/every aspect of the product that failed to meet the required resistance class
r) Failure criteria assessed against, particularly if different from the standard failure criteria defined in 7.9

7.11. Tool kits

Note that the quantity of tools given relates to the number of tools of that particular size that can be used at any one time during an individual test, e.g. the tester may choose a selection of screwdrivers but may only use one of each size at any one time.

Where a tolerance is not specified the size given can be considered as the maximum permitted.

7.11.1. TK1 - Tool kit 1

Qty	Item	Spec
1	Adhesive tape (reel)	-
1	Cable cutter	140±20mm long
1	Credit card	85±5mm long 55±5mm wide
1	Electrical cable	1.2mm diameter 1000mm length
1	Firefighter's key	
1	Fishing line (reel) & hooks (selection)	-
1	Glass cutter	-
1	Hexagon allen keys (selection)	120mm length
1	Hooks (selection)	-
1	Knife	120mm blade length 3mm thickness
1	Lever (selection)	310mm length
1	Nylon webbing strap	1000±25mm long 25±10mm wide
1	Pin punches (selection)	200mm max length
1	Pliers (engineers)	210mm long
1	Pliers (long nose)	210mm long
1	Pliers (self-gripping)	IRWIN straight jaw & curved jaw
1	Rope (selection)	Non metallic 20mm thickness
1	Screw drivers (selection)	6±2mm shaft diameter
1	Scriber	200mm long
1	Socket set (selection)	150mm max length ratchet arm
1	Spanners (selection)	180mm long
1	Steel wire (selection)	Up to 3mm thick
2	Traction screws (selection, self-cutting)	Various
1	Tweezers (selection)	120±25mm long
1	WD40 (or equivalent)	400ml
3	Wedges (plastic)	200±25mm long 80±10mm wide 40±5mm high
3	Wedges (wooden)	200±25mm long 80±10mm wide 40±5mm high

7.11.2. TK2 – Tool kit 2

Qty	Item	Spec
1	Bolt cutter	350mm max length
1	Claw hammer	325±25mm long
3	Drill bits (selection)	6mm max HSS/HSCO/Masonry
1	Drill (rotary, cordless)	3.6V with spare battery
1	Electrical cable	2.1mm diameter 1000mm long
1	Junior hacksaw	-
2	Junior hacksaw blades	HSS
1	Pipe wrench	240±10mm long
1	Pliers (multiple slip joint)	250mm long
1	Pliers (selection including self-gripping)	250mm long
1	Plate shears	200±20mm long
1	Screwdriver	365±25mm long 16±2mm blade width
1	Screwdriver	7mm diameter 250±50mm long
1	Socket set (selection)	250mm max length ratchet arm
1	Steel tube	500±10mm long 35±5mm diameter 3mm max thickness

In addition the tools from tool kit 1 can also be used

7.11.3. TK3 - Tool kit 3

Qty	Item	Spec
1	Axe	350±50mm long
1	Brick bolster chisel	220±20mm long
1	Car scissor jack	1.5 Tonne
2	Chisels (cold)	250±25mm long 25±5mm blade width
2	Chisels (wood)	250±25mm long 25±5mm blade width
1	Crow bar	710±10mm long
1	Drill (rotary, cordless)	12V with spare battery pack
6	Drill bits (selection)	10mm max HSS/HSCO/TC/Masonry
1	Gas torch	
1	Hacksaw	400±50mm long
2	Hacksaw blades	HSS
1	Hammer	400mm long 1.5 kg
1	Pad saw	100±50mm long
2	Pad saw blades	HSS

In addition, the tools from tool kits 1 and 2 can also be used

7.11.4. TK4 - Tool kit 4

Qty	Item	Spec
1	A tool lock puller	
1	Bolt cutters	460±50mm long
1	Disc grinder (cordless)	12V with 2x spare battery pack
3	Discs blades (selection)	100mm diameter
1	Drill (rotary, cordless)	12V with 2x spare battery pack
6	Drill bits (selection)	HSS/HSCO/Masonry/TC 13mm max
1	Felling axe	850mm long
1	Halligan bar	760±50mm long
1	Jigsaw (cordless)	12V
3	Jigsaw blades	HSS/HSCO/carbide
1	K tool lock remover	
2	Plate shears (left and right hand cutting)	260±25mm long
1	Saw (general purpose)	650±50mm long
1	Saw (50mm hole saw)	HSS
1	Sledge hammer	4.5kg
-	Steel wedges	200±25mm long 80±10mm wide 40±5mm high
1	Steel tube	500±10mm long 75±5mm diameter

In addition, the tools from tool kits 1, 2 and 3 can also be used

7.11.5. TK5 - Tool kit 5

Qty	Item	Spec
1	Circular saw (cordless)	18V with 2x spare battery pack
3	Circular saw blades (selection)	200mm diameter HSS/HSCO/TC
1	Disc grinder (cordless)	18V with 2x spare battery pack
3	Disc blades (selection)	125mm diameter 2.5mm thick for steel or stone cutting
1	Drill (rotary & hammer, cordless)	18V with 2x spare battery pack
6	Drill bits	13mm diameter HSS/HSCO/TC/Masonry
1	Electric jig saw (cordless)	18V
3	Electric jig saw blades	HSS/HSCO/TC
1	Reciprocating saw	18V
3	Reciprocating saw blades	HSS/HSCO/TC

In addition, the tools from tool kits 1, 2, 3 and 4 can also be used.

7.11.6. TK6 - Tool kit 6

Qty	Item	Spec
1	Disc grinder	2300w ±10%
3	Disc blades	230mm diameter 3mm thick for steel or stone cutting
1	Drill (with rotary/hammer action) -	750 W
6	Drill bits	13mm diameter jobber and long series - HSS / HSCO / Carbide
1	Electric circular saw	
1	Glass master saw	
1	Hole saw	50mm min diameter
1	Halligan bar	910mm long
	Pinch bar	1.5m long
1	Reciprocating saw	750W
3	Reciprocating saw blades	HSS/HSCO/TC
1	Steel tube	1000±10mm long 75±5mm diameter
1	Sledgehammer	750mm max length 6 kg
2	Wood boring spade bits	

In addition, the tools from tool kits 1, 2, 3, 4 and 5 can also be used

8. ASSESSMENT OF PRODUCTS

Product tested shall represent the most adverse and vulnerable in design, size and configuration as determined by the test laboratory prior to testing. No extrapolation of the product specification in terms such as size, width, infill panel size & hardware is permitted beyond that tested and assessed as prescribed in clause 7 unless explicitly agreed with Warringtonfire.

9. REQUIREMENTS FOR HARDWARE

Locking cylinders accessible from the external face shall meet the requirements of at least a one-star rating to TS007, including the general vulnerability assessment BS 3621 Annex A clauses A.5 and A.6.

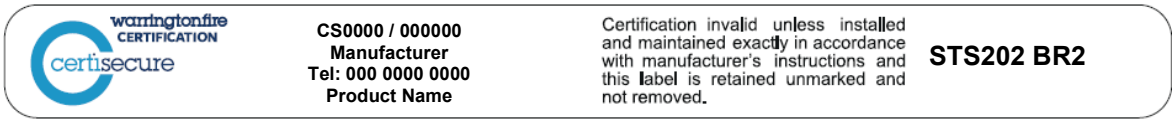
10. CERTIFICATE CONTENTS

The certificate shall identify the product and any variations in the design. It shall also specify the classification as prescribed in clause 5. An annex to the certificate, not in the public domain will describe in detail the product certificated.

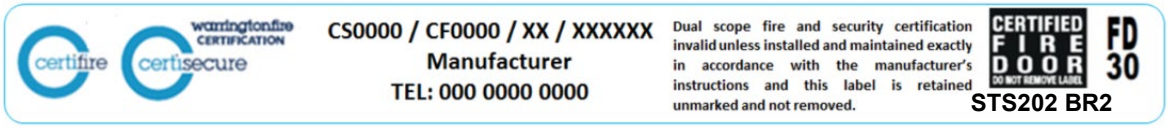
11. LABELLING AND CONFORMITY

The certificated product shall be provided with a tamper evident label or marking fixed to the product in the prescribed position.

Example of label:



Example of dual scope label:



The label should be fitted so it is visible when the specimen is open but not necessarily when closed. In the case of non-opening specimens, the label can be concealed by an easily removable trim.

A factory supplied product requires a label on only one part. Items supplied separately or items supplied in knock down form as part of an assembly shall each be labelled.
Labels are available from Warringtonfire.

The label shall be clearly marked so that the scope of certification can be easily established. The labels shall be sequentially numbered. The marking shall include:

- The Warringtonfire mark or the Certisecure logo
- The certificate number
- A unique serial number
- Optionally the manufacturer's or certificate holder's name and contact details. Note: If the manufacturer's or certificate holder's name is not applied, no other name or reference shall be identified on the label or door.
- The technical specification number (STS 202)
- The security classification in accordance with 5.1 (e.g. BR1)
- The fire classification in accordance with 5.5 (if applicable)

The scope of the certification of the product assembly shall be clearly identified in the issued certificate and be recorded in the Warringtonfire Technical Directory.

12. INSTALLATION INSTRUCTIONS

Each product shall be supplied with full installation instructions.

13. FACTORY PRODUCTION CONTROL (FPC)

Factory production control and the independent inspection thereof shall be in accordance with the requirements given in STS 200.

14. AUDIT TEST REQUIREMENTS

Audit testing to STS202 Clause 7 shall be carried out annually on the anniversary of the first issue of the certificate, and as per the requirements of Secured by Design.

Audit testing shall be indicative of the range of product certified. Additions to scope can be proven through the audit test programme with the agreement of Warringtonfire.

If any rating other than NPD or 800U is claimed, audit testing to BS 6375-1 should be carried out every three years on the anniversary of the first issue of the certificate, and as per the requirements of Secured by Design should include a minimum of BS6375-1 clause 6 air permeability testing and clause 7 water tightness testing.

See STS 200 for any additional audit test requirements.

Warringtonfire Testing and Certification Limited
Reg. Office: 10 Lower Grosvenor Place, London, United Kingdom, SW1W 0EN
Co. Reg. No. 11371436

ANNEX A

PARTICIPATING ORGANISATIONS

BODIES AUTHORISED TO OPERATE CERTIFICATION TO THE PROVISIONS OF THIS SCHEDULE

Warringtonfire Testing and Certification Limited

MEMBERS OF THE WARRINGTONFIRE IMPARTIALITY COMMITTEE

Association for Specialist Fire Protection (ASFP)
British Automatic Fire Sprinkler Association (BAFSA)
British Retail Consortium (BRC)
British Woodworking Federation (BWF)
Chief Fire Officers Association (CFOA)
Construction Products Association (CPA)
Ministry of Housing, Communities and Local Government (MHCLG)
Door and Hardware Federation (DHF)
Fire Protection Association (FPA)
Glass and Glazing Federation (GGF)
Guild of Architectural Ironmongers (GAI)
Institute of Fire Prevention Officers (IFPO)
Institute of Fire Safety Manager (IFSM)
London Underground Limited (LUL)
Royal Institute of Chartered Surveyors (RICS)
RISC Authority
Secured by Design (SBD)
Local Authority Building Control (LABC)
Warringtonfire (WF)

Warringtonfire Testing and Certification Limited
Holmesfield Road, Warrington, Cheshire, WA1 2DS

Reg. Office: 10 Lower Grosvenor Place, London, United Kingdom, SW1W 0EN
Co. Reg. No. 11371436

Tel: +44 (0) 1925 646777

E-mail: EWCL@warringtonfire.com Website: www.warringtonfire.com