



## Technical information

# Secured by design

### Doors and windows

#### 01 What is Secured by Design (SBD)?

SBD is an award given to the developer, landlord or architect, building or refurbishing homes, commercial developments and sheltered accommodation. The scheme and the award has been developed by the Association of Chief Police Officers Crime Prevention Initiatives (ACPO CPI Ltd). The award is given when a development has reached not only a minimum standard of physical security – the doors, locks, windows, lighting, alarms etc - but also when the layout of the development reduces the opportunity for crime. Secured By Design provides confirmation that all reasonable precautions have been built into a property and that the security level is acceptable to insurance companies (under normal circumstances).



Full details of the scheme can be found at [www.securedbydesign.com](http://www.securedbydesign.com) or by contacting your local police Architectural Liaison Officer (ALO) or Crime Prevention Design Advisor (CPDA).

#### 02 Requirements

Entrance doors and accessible windows installed into SBD developments must meet specified performance standards to demonstrate appropriate levels of security and fitness for purpose i.e. durability, weathertightness and usability.

Compliance is demonstrated by independent, third party certification based on:

- **performance** tested against specified standards, and...
- **production** based on an approved quality management system.

Performance and production continue to be checked on a regular basis via audit testing and factory inspections.

Testing demonstrates that a product performed on a particular day whereas certification, ensures that:

- the product continues to meet the specification of the originally tested sample
- products continue to be produced to a consistent standard.

The high level of confidence offered by certification is essential when considering security and personal safety.

Manufacturers whose doors or windows meet the requirements, can apply for an SBD licence from ACPO CPI Ltd which will enable them to tender for projects which stipulate SBD compliance within the product specification and to use the SBD logo on their products, packaging and marketing material.

### 2.1 Entrance doorsets

Doorsets must be certified by an independent UKAS accredited certification body and tested against PAS 24 and the relevant material specific standard for general performance (which will reference BS 6375 Parts 1, 2 and 3).

Testing for entrance doorsets includes:

General Performance	PAS 24 - Enhanced Security
Including: <ul style="list-style-type: none"> <li>• Operating forces</li> <li>• Air permeability</li> <li>• Watertightness</li> <li>• Wind resistance</li> <li>• Basic security</li> <li>• Cyclic operation</li> <li>• Operational strength characteristics</li> </ul>	Including: <ul style="list-style-type: none"> <li>• Manual manipulation</li> <li>• Manual infill medium removal</li> <li>• Mechanical infill medium removal</li> <li>• Mechanical loading</li> <li>• Manual check</li> <li>• Soft body impact</li> <li>• Hard body impact</li> <li>• Manual cutting</li> <li>• Hardware and cylinder security</li> </ul> PAS 24 additionally specifies requirements for cylinders, letter plates and glazing material.  Alternatively security can be demonstrated by testing to EN 1627-30 Class RC3 for doors with additional cylinder and letterplate requirements as specified in PAS 24.

### 2.2 Windows

All ground floor windows and those easily accessible above ground floor installed into SBD developments, must be certified by an independent UKAS accredited certification body and tested against PAS 24 and the relevant material specific standard for general performance (which will reference BS 6375 Parts 1, 2 and 3).

Testing for windows includes:

General Performance	PAS 24 - Enhanced Security
Including: <ul style="list-style-type: none"> <li>• Operating forces</li> <li>• Air permeability</li> <li>• Watertightness</li> <li>• Wind resistance</li> <li>• Basic security</li> <li>• Cyclic operation</li> <li>• Operational strength characteristics</li> </ul>	Including: <ul style="list-style-type: none"> <li>• Manual manipulation</li> <li>• Manual infill medium removal</li> <li>• Mechanical infill medium removal</li> <li>• Mechanical loading</li> <li>• Manual check</li> <li>• Alternatively security can be demonstrated by testing to EN 1627-30 Class RC2N for Windows.</li> </ul>

Testing must be undertaken at a test laboratory suitably accredited by the United Kingdom Accreditation Service (UKAS). SBD requires that test laboratories achieve UKAS accreditation to ensure tests are being carried out correctly and in a fully independent manner. A laboratory has to set up a wide range of procedures and management systems to UKAS requirements. UKAS (the government endorsed agency for accreditation) audits the systems of the laboratory against their requirements on a frequent basis.

## 03 Certification

ACPO CPI has made third party certification a requirement for entrance doors and accessible windows installed into SBD approved new homes.

BM TRADA operates 'Q-Mark' enhanced security schemes for doorsets and window assemblies to satisfy SBD requirements.

### 3.1 What is third party product certification?

Third party product certification is the ultimate endorsement of a product's quality. By considering performance (through testing) and production (through quality management) manufacturers are able to demonstrate to specifiers and purchasers that products not only meet the test requirements but that every product produced should continue to meet those same high standards.

### 3.2 Why is certification important?

Certification provides reassurance:

- to the occupier that the product will perform
- to the property owner that they have done as much as possible to ensure the safety of the end-user
- to the insurer and inspector (Police ALOs/Building Control) that the requirements have been met
- to the manufacturer that their product will perform.

This degree of reassurance is important when considering the security of social housing developments. It is not sufficient to know that one specimen product met the standards in the test laboratory on one day. Certification offers the reassurance that all products arriving and being installed on site will offer the required levels of security, and therefore peace of mind, expected by the occupier and property owners/managers.

### 3.3 What are the steps to becoming certified?

To satisfy the requirements of 'Q-Mark' enhanced security schemes manufacturers will need:

- test evidence from a UKAS accredited test laboratory to cover the complete range of configurations to be certified. Plus, evidence that products meet material-specific general performance requirements.
- an approved Quality Management System – to meet the requirements of ISO 9001:2000 (or equivalent) as they relate to enhanced security doorset and window manufacture.
- manufacturing specifications and installation instructions.
- regular auditing of the manufacturing process by a specialist auditor.

### 3.4 Identifying certified products

Certified doors and windows are marked with a label which should include:

- the certification body's name e.g. BM TRADA
- the standard that applies e.g. BS 7412 and PAS 24

It is important to verify that the products to be purchased are covered by the manufacturer's Scope of Certification, a copy of which should be requested from the manufacturer. Q-Mark scheme members can be verified via [www.bmtrada.com](http://www.bmtrada.com).



Manual glazing removal.



Mechanical load test.



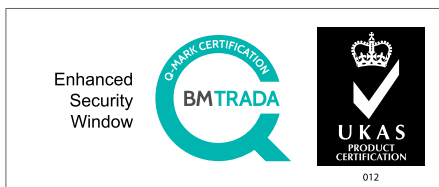
Soft body impact.



Cyclic test.



Hard body impact.



## 04 Further information

**BM TRADA provides UKAS accredited security testing to meet Secured By Design requirements.**

In addition we offer a range of other testing services for doors and windows:

- Classification for service life (CDTM01)
- Fire resistance testing (BS 476: Part 22 or BS EN 1634: Part 1)
- Acoustic products testing (BS EN ISO 10140)
- Smoke control testing (BS EN 1634-3).

BM TRADA operates a range of Q-Mark third party certification schemes, including:

- Enhanced Security Window (to meet SBD requirements)
- Enhanced Security Door (to meet SBD requirements)
- Window General Performance
- High Performance Timber Window
- Enhanced Lifetime Performance of Doors
- Window and Doorset Survey & Installation
- Fire Door Manufacture
- Fire Door Installation
- Fire Door Maintenance
- Fire Stopping Installation
- Acoustic Window
- Insulating Glass Units
- Flat Glass

BM TRADA is a Notified Body under the Construction Products Regulation.

BM TRADA also provides management certification for Quality (ISO 9001), Health & Safety (OHSAS 18001) and Environmental (ISO 14001).

**BM TRADA provides independent certification, testing, inspection, training, technical services information around the world.** We help customers large and small to prove their business and product credentials and to improve performance and compliance.



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