

Security systems

Protecting people and property



The correct specification of security products and systems is critical in protecting people and property from losses associated with crime and terrorism



Overview

BRE Global has been setting standards for loss prevention since the 1800's, and its standards and certification schemes for security products are recognised across the world. That recognition is testimony to the extremely thorough technical evaluation work and rigorous quality audit processes undertaken by BRE Global to ensure the security products it tests and certifies deliver proven levels of protection.

BRE Global works closely with government, police, insurers, risk consultants and architects to develop standards and certification schemes which ensure security equipment and services deliver the levels of performance required to protect against criminal and terrorist threats.

BRE Global's Loss Prevention Standards (LPSs) are specified across multiple sectors, including: education, finance, healthcare, manufacturing, the public sector, residential, retail and utilities. LPS standards are also specified for the protection of critical infrastructure where delivery of specified levels of security performance is critical.

BRE Global certify fire and security products and services under its world renowned LPCB certification brand. In addition to certifying products and services to its demanding LPS standards, BRE Global also test and certify products to a wide range of UK (BS and PAS), European (EN) and International (ISO) standards.

Products and services covered by valid LPCB certification are listed in the RedBook. This free-to-use online resource (www.redbooklive.com) can be used to source certified products and services as well as validate claims of certification made by suppliers.

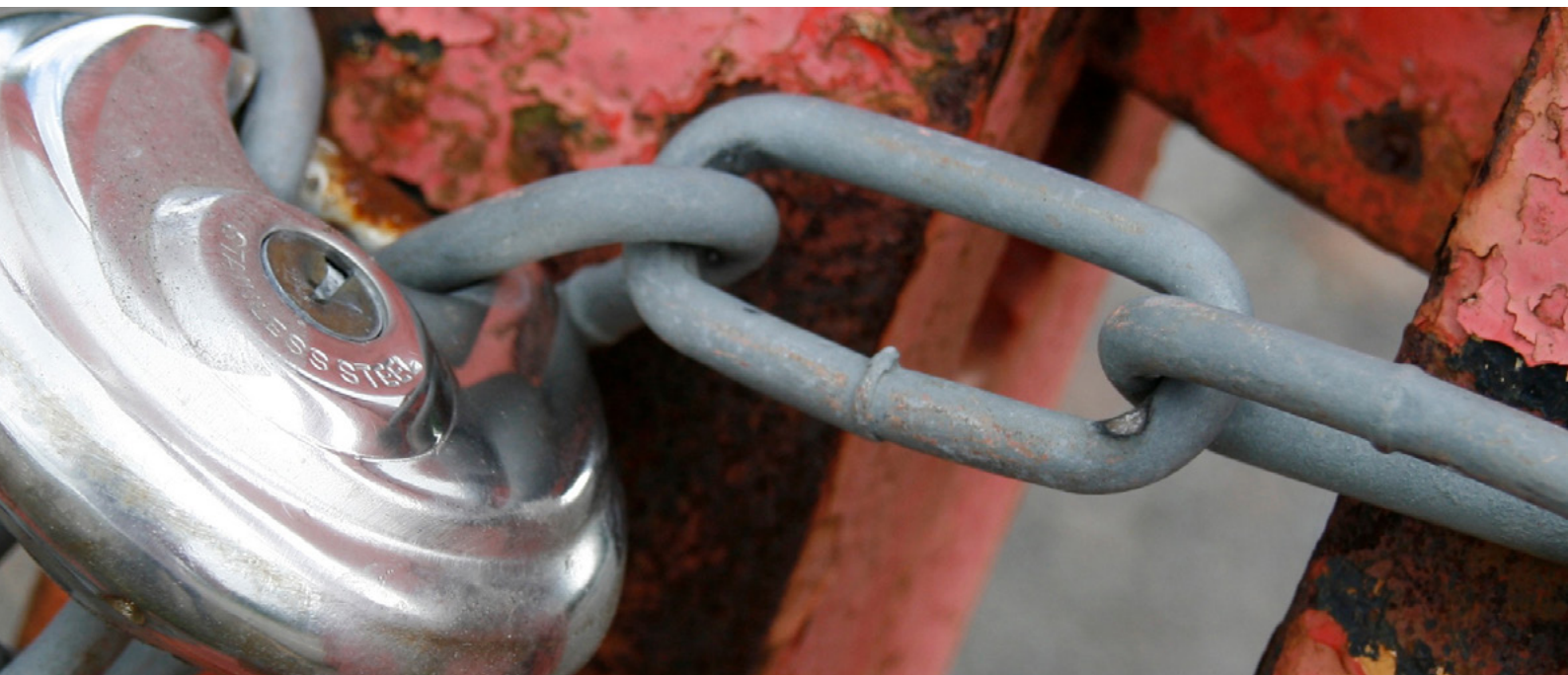
Setting high standards of security

The Loss Prevention Standards developed by BRE Global address risks not otherwise covered by existing national and international standards and codes. They are drafted by teams of experts, and are reviewed and endorsed by independent stakeholders representing major interest groups.

BRE Global's broad range of standards are designed to simulate a variety of circumstances. This could be the likely length of attack, the tools or methods used, or even the likelihood of a stealth attack. Whatever the situation, an effective physical security solution should deter or delay an attacker and should be complemented by a suitable means of detection and an appropriate response.

Loss Prevention Standards can be viewed at www.redbooklive.com.



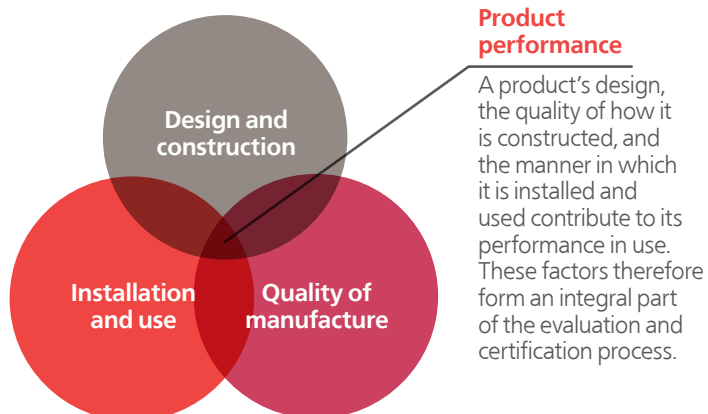


Independent testing

BRE Global has a fully equipped UKAS accredited testing laboratory No. 0578. BRE Global can also conduct testing to several physical security standards at manufacturers' premises and other sites, whether in the UK or abroad. This has many advantages to manufacturers including reduced costs and timescales.

Certification of effective security

In order to ensure the LPCB certification mark is, and continues to be, a mark of excellence in loss prevention; the products that bear the LPCB certification mark and the companies that deliver those products onto the market have to complete a thorough evaluation process. That process focuses on the critical factors that combine to deliver the product's performance: design, use and quality control. It also involves thorough processes to ensure the quality of testing conducted in support of the product's certification, whether conducted by BRE Global's own expert team of test engineers or by other independent laboratories recognised by BRE Global.



The evaluation activities BRE Global undertake, not only before issuing an LPCB certificate but whilst that certificate remains in force, help to ensure the factors that affect product performance are suitably robust and managed effectively. In turn these activities help to ensure products continue to meet the exacting standards to which they are certified by LPCB.

Why have a product certified?

Protecting people, property and the environment is as important today as it has ever been. The LPCB certification mark reassures customers, end-users and regulators that the certified products and systems being invested in and used provide a defined level of protection to property, people and other assets.

Manufacturers benefit from certification by being able to positively distinguish their products from those offered by their competition in a way that purchasers will recognise, accept, and increasingly insist upon. When a product is certified by BRE Global it is immediately listed in the RedBook; a source used by thousands of purchasers around the world when selecting security components.

Specifiers and designers also benefit by being able to cut through the confusion often surrounding claims of compliance, as the LPCB certification mark provides evidence that a product has met a given standard.

Red Book

Once BRE Global is satisfied that a product or service meets the required standard, it is listed in the Red Book. Red Book listings can be downloaded free of charge from www.redbooklive.com.

The Red Book therefore helps to combat false or misleading claims of product certification. Where such claims refer to LPCB schemes or services, BRE Global actively investigates them and takes action as necessary.

www.redbooklive.com

Security Systems

LPCB certification ensures that security products provide the reliable delay and means of detection required to protect against intrusion



An effective security strategy concentrates not only on one particular element, but addresses each and every 'layer' applicable to the scenario. BRE Global's Loss Prevention Standards (LPS), product certification and Red Book listings cover a broad range of potential solutions, including:

- Access control systems
- Access covers and hatches
- Alarm receiving centres
- Alarm transmission systems
- Asset marking systems
- Bicycle storage
- Biometrics
- Cabinets and cages
- Cladding and roof systems
- Curtain walling systems
- Cylinders
- Doors
- Electronic locks
- Enclosures and kiosks
- Fences and walls
- Gates and turnstiles
- Glazing
- Grilles and barsets
- Intruder detection systems & components
- Locks and padlocks
- RFID
- Safes and strongrooms
- Secure asset registers
- Sheds and tool stores
- Shutters
- Specialist security devices
- Theft resistant assets
- Transceivers for supervised premises and receiving centres
- Vehicle barriers
- Windows and roof lights

BRE Global certifies security equipment to various British and European standards, as well as its own world-renowned Loss Prevention Standards (LPS). These allow specifiers to select appropriate products for each security layer, from the perimeter through to the asset itself.

Intruder-resistant products

LPS 1175 LPS 2081
PAS 24 EN 1627

Glazing

LPS 1270 EN 356

Safes and strongrooms

LPS 1183 EN 1143
EN 14450

Locking hardware

LPS 1654 LPS 1242

Blast protection

EN 13123-1 ISO 16933
EN 13123-2 ISO 16934
EN 13541

Intruder & hold-up alarm systems

EN 50131

Alarm receiving and alarm transmission

LPS 1020 LPS 1277
EN 50136

Asset marking

LPS 1224 LPS 1225

Information technology

LPS 1214

Vehicle barriers

PAS 68 LPS 1175
IWA14

Theft resistant consumer electronics

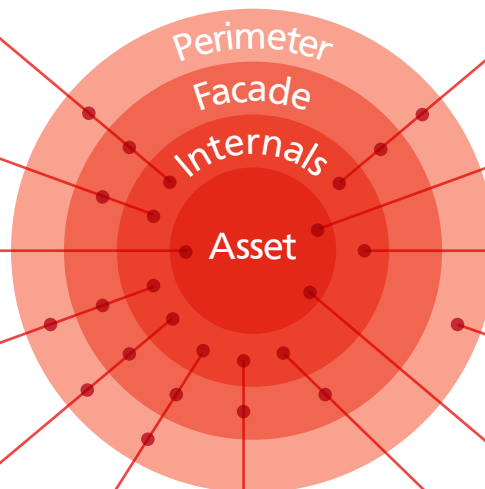
LPS 1650

Ballistic protection

EN 1063 EN 1522
ISO 16935

Access control systems

EN 60839-11-1





Building and perimeter

LPS 1175

Requirements and testing procedures for the LPCB certification and listing of intruder resistant building components, strongpoints, security enclosures and free-standing barriers.

LPS 1175 covers the broadest scope of physical security products and services of any publicly available standard in the world, and the broadest scope of forced entry threat scenarios involving intruders that have little regard to the noise they make during attempts to achieve unauthorised access to assets, property and people. The standard is the result of many years of work in partnership with Government, Insurers, Police and other stakeholders, and is a core element of physical security specification across many sectors.

The latest version (Issue 8) defines intruder resistance in terms of Security Ratings that are formed of the following two elements:

- **Threat level** - Letter (A to H) corresponding with the tool kit used to evaluate the product's intruder resistance and the number of attackers involved.

- **Delay** - Numeric value (1, 3, 5, 10, 15 or 20) corresponding with the minimum delay (in minutes) provided by the product when placed in a locked condition.

Issue 8 supports a layered approach to security, enabling the delay provided by products forming each layer of security to be determined against a common threat.

Products certified to LPS 1175 suit environments ranging from those in which an opportunist may be willing to spend up to one minute using easily concealed hand tools (Security Rating A1) through to sustained professional attacks lasting 20 minutes using a wide range of manual, electrical and thermal attack tools (Security Rating H20).

LPS 2081

Requirements and testing procedures for the LPCB certification and listing of building components, strongpoints, security enclosures and free standing barriers offering resistance to intruders attempting to use stealth to gain entry.

While LPS 2081 covers the same scope of products as LPS 1175, it focuses on prevention of a very different threat, i.e. intruders using stealth. Products certified to the standard therefore suit environments where intruders will avoid making noise when attempting to gain access.



EN 1627

Pedestrian doorsets, windows, curtain walling, grilles and shutters. Burglar resistance. Requirements and classification.

This standard classifies a product's resistance to tiered levels (resistance classes). The lower classes of EN 1627 are aimed at attacks by criminals using stealth to gain access, rather than the higher levels of attack covered by LPS 1175. Certification to EN 1627 can be used to demonstrate part-compliance with the requirements of PAS 24.

PAS 24

Enhanced security performance requirements for doorsets and windows in the UK.

This domestic security standard includes doors (hinged, sliding, bi-folding) and windows (casement, tilt-turn, sliding sash). PAS 24 is a mix of mechanical loading and manual intervention tests.

Doors and windows certified by LPCB to PAS 24, LPS 1175 or LPS 2081 are accepted by the police for use in Secured by Design projects and meet the requirements of Approved Document Q.

Glazing

LPS 1270

Requirements and testing procedures for the LPCB certification and listing of intruder resistant security glazing units.

LPS 1270 classifies glazing's resistance to forced entry to the same levels as specified in LPS 1175. The classification is represented by 3 digits; these signify the glazing's resistance to local penetration, hand hole access, and complete access.

Digit	Type	Description
1st	Local penetration	Represents glazing's likely resistance to creation of a hole through which a piece of wire, screwdriver, lever or other such device can be passed. Such attacks may be attempted by intruders wishing to operate a panic bar, emergency lever handle or other.
2nd	Hand hole access	Represents glazing's likely resistance to creation of a hand hole. Such attacks may be attempted by intruders wishing to: <ul style="list-style-type: none"> – Operate a thumbturn to release a lock fitted to a certified product. – Retrieve an item from the protected side of the glass.
3rd	Complete access	Confirms the glazing's resistance to creation of a hole through which an elliptical test block measuring 400 mm by 225 mm may be passed. This replicates the size of a hole a person may be able to pass through and reflects the test block defined in LPS 1175.



Ballistic and blast protection

LPCB offers independent third-party certification of products offering protection to:-

- EN 1063 – Glass in building – Security glazing – Testing and classification of resistance against bullet attack
- EN 1522 – Windows, doors, shutters and blinds – Bullet resistance – Requirements and classification
- EN 13123-1 – Windows, doors and shutters – Explosion resistance – Requirements and classification – Part 1: Shock tube
- EN 13123-2 – Windows, doors and shutters – Explosion resistance – Requirements and classification – Part 2: Range test
- EN 13541 – Glass in building – Security glazing – Test and classification of resistance against explosion pressure
- ISO 16933 – Glass in building – Explosion resistant security glazing – Test and classification for arena air blast loading
- ISO 16934 – Glass in building – Explosion resistant security glazing – Test and classification for shock tube loading
- ISO 16935 – Glass in building – Bullet-resistant security glazing – Test and classification

Hostile vehicle mitigation

PAS 68 and IWA14

Impact test specifications for vehicle security barriers.

LPCB offers independent third-party certification of vehicle mitigation equipment. This ensures the products supplied by manufacturers deliver the levels of performance claimed and that the performance demonstrated during testing is replicated by the products delivered to site. LPCB can also undertake testing of vehicle barriers together with ancillary equipment, such as hydraulic motor housing, to LPS 1175. This demonstrates their resistance to manual attacks aimed at compromising the barrier's ability to prevent the passage of hostile vehicles.

Safes, strongrooms & security cabinets

EN 1143

Secure storage units. Requirements, classification and methods of test for resistance to burglary. Safes, ATM safes, strongroom doors and strongrooms.

LPCB provides testing and certification to the widely-specified EN 1143 standard, which can be applied to safes, strongrooms and ATM safes. The standard comprises a series of 'grades', with the designated grade indicating the value of contents acceptable to insurers.

LPCB also provide testing and certification of security cabinets to LPS 1175 and EN 14450, both of which are recognised by Insurers and Police.

Asset marking and databases

LPS 1225

Requirements for the LPCB approval and listing of asset marking systems.

LPS 1225 specifies the requirements for the composition and performance of an asset marking system such that, when used according to the manufacturer's instructions, the asset marking device may both:

- Enable the marked asset to be traced back to the legal owner via a secure database register (see below), and
- Act as a theft deterrent in the first instance by virtue of known existence.

LPS 1224

Requirements for secure database registers.

LPS 1224 sets out the requirements for secure databases on which information may be stored pertaining to asset marked products.

Installation, service and maintenance

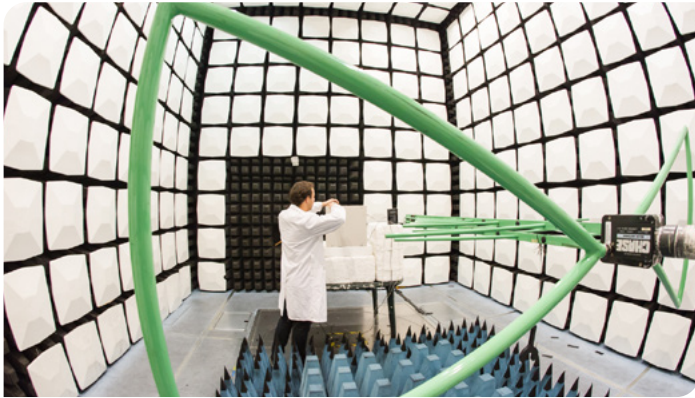
It is critical that doors and shutters are appropriately installed and maintained, as poor installation can undermine a product's security performance. LPCB offers the following schemes relating to installation, inspection, service and maintenance:

LPS 1197:

Requirements for companies inspecting, repairing and maintaining security doors, doorsets and shutters.

LPS 1271:

Requirements for LPCB approval and listing of companies installing fire and security doors, doorsets and shutters and active smoke/fire barriers.



Locking hardware

LPCB offers certification schemes for hardware including locksets, exit devices, padlocks and cylinders.

LPS 1654

Requirements and testing procedures for the LPCB approval and listing of padlocks.

LPS 1654 specifies the requirements for resistance to manual attack for padlocks. The standard shares the same security ratings as LPS 1175, allowing specifiers to determine the suitability of padlocks for use on other LPCB certified products.

LPS 1242

Requirements and testing procedures for the LPCB approval and listing of cylinders for locks.

LPS 1242 describes the requirements for manual attack of mechanically operated cylinders and their original keys, and applies to cylinders that may be employed in locksets used on the doors of buildings, or in padlocks.

Access control systems

EN 60839

Electronic access control systems

BRE Global provide testing and LPCB certification of electronic access control systems to EN 60839-11-1, Electronic access control systems - System and component requirements.

Intrusion alarm systems

EN 50131 series

Intrusion and hold-up systems.

BRE Global provides a range of services related to intrusion alarm systems and components, including testing and LPCB certification to the EN 50131 series of product standards.

The EN 50131 series of standards specify the requirements for Intrusion and Hold-up Alarm Systems (I&HAS) and components installed in buildings using specific or non-specific wired interconnections or wire-free interconnections.

These requirements also apply to components of an I&HAS which are normally mounted on the external structure of a building e.g. ancillary control equipment or warning devices.

Alarm transmission systems

EN 50136 series

Alarm transmission systems and equipment.

BRE Global provide testing and LPCB certification of alarm transmission system components to the requirements of the EN 50136 series of standards, for example; supervised premises transceivers (EN 50136-2) and receiving centre transceivers (EN 50136-3), including the appropriate requirements of the system standard EN 50136-1.

LPS 1277

Requirements for LPCB certification and listing of alarm transmission equipment.

LPS 1277 builds upon the core requirements of the EN 50136 standards and defines enhanced performance criteria appropriate to intrusion and hold-up alarm systems.

The enhanced performance criteria includes a 10 minute fault reporting time (identified as an essential requirement not provided by the EN 50136 standards) and greatly improved reporting of the simultaneous 'catastrophic failure' of multiple alarm transmission paths.

All performance testing to LPS 1277 is carried out over representative live networks as a means to replicate real-world installation.

Alarm receiving centres

BRE Global certify alarm receiving centres (ARC) to its LPS 1020 standard 'Requirements for Alarm Receiving Centres'. This standard specifies requirements for ARC and incorporates additional clarification for ARC receiving fire alarm calls.

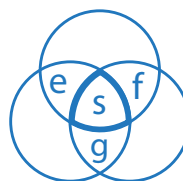
CCTV security systems

CPNI Video Analytics Assessment Programme

BRE Global has been awarded an exclusive contract to be the authorised test house for the Centre for the Protection of National Infrastructure (CPNI) Video Analytics Assessment Programme for the Sterile Zone, Abandoned Baggage Detection, Parked Vehicle Detection and Doorway Surveillance scenarios. This testing has evolved from the previous assessment programme commonly known as 'i-LIDS', however both the video datasets and test process remain the same. Systems that demonstrate their ability to alert CCTV operators of suspicious alarm events in these key security areas will be permitted by CPNI to use their trademark.

European Fire and Security Group

BRE Global is a member of the European Fire and Security Group (EFSG) and is signatory to the intrusion alarms mutual acceptance agreement, which helps product manufacturers achieve multiple certification efficiently and without the duplication of testing.



For more information visit www.efsg.org.

About BRE

BRE Group

BRE is an international, multi-disciplinary, building science organisation with a mission to improve buildings and infrastructure through research and knowledge generation, and their application. BRE employs over 600 people in the UK, China, India, the Middle East and the USA who are committed to building a better world together.

Our products, services, standards and qualifications are applied in over 80 countries enabling our customers to make a positive difference to the built environment. We are owned by a charity called the BRE Trust, which delivers one of the largest programmes of built environment education and research for the public good.

BRE Global

BRE Global Limited (incorporating LPCB & BREEAM) is an independent third party certification body for fire, security and sustainability products and services in an international market. BRE Global's product testing and certifications are carried out by recognised experts in our world renowned testing laboratories. BRE Global Limited is custodian of a number of world leading brands including:

- LPCB for the certification of fire and security products and services, listed on www.rebooklive.com.
- BREEAM the world's leading environmental assessment method for buildings, sets the standard for best practice in sustainable design and has become the de-facto measure of a building's environmental performance. All of our environmental certifications are listed on www.greenbooklive.com.
- SABRE is a security assessment and certification scheme for buildings, infrastructure and managed space.



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BRE Trust

The BRE Trust uses profits made by BRE Group to fund new research and education programmes that will help it meet its goal of 'building a better world together'.

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