

Protecting people and property from terrorism

At a time of heightened terrorist threat, those responsible for the security of premises are turning to security products that are independently certificated to give them the assurance that they are fit for purpose. Richard Flint of BRE Global discusses the benefits of product certification to both manufacturers and users, focussing on one of the leading security protection standards – LPS 1175.

In her recent speech unveiling the new counter-terrorism bill, Home Secretary Theresa May referred to the IRA's chilling warning after the Brighton bombing: "Today we were unlucky, but remember we only have to be lucky once – you will have to be lucky always".

This was a timely reminder of the need for constant vigilance, but it is possible to greatly reduce the element of luck when protecting against terrorism and other crimes, using well proven mechanisms to help specify and implement effective security protection. These include the use of security products and systems that have been independently assessed and certificated using recognised standards such as LPS 1175¹.

Effective security against forced entry

There is a rule of thumb that says a security system for preventing forced entry to premises should provide four Ds – three of which are *delay*, *detect* and *detain*. When these work together effectively they deliver the fourth D which is *deter*.

The *delay*, which is provided by physical security measures, must at least match the time required to *detect* the attempted intrusion and respond to that detection in order to *detain* the intruder. It is important to remember that thwarting an attack from a terrorist intent simply on destruction, will require a greater delay than that of a burglar wishing to escape with stolen goods. To counter a terrorist attack a far greater reliance must therefore be placed on the physical security measures implemented.

BRE Global Ltd is an independent third party certification body offering certification of fire and security products under its LPCB brand. BRE Global has developed a broad range of Loss Prevention Standards (LPSs) to address risks not otherwise covered by existing national and international standards and codes.. It developed LPS 1175 to cover the resistance to forced entry of any barrier or enclosure designed to prevent unauthorised human access.

These measures include fences and other perimeter barriers, containers, walls, screens, windows, doors and roofs, etc, a wide range of which can be certificated to LPS 1175 – as shown in the diagram below.

¹ LPS 1175 – Requirements and testing procedures for the LPCB approval and listing of intruder resistant building components, strongpoints, security enclosures and free-standing barriers.



- Access covers and hatches
- Cladding systems
- Commercial vehicles
- Conservatories
- Containers
- Display cases and cabinets
- Hinged and pivot doorsets
- Fences and gates
- Folding doorsets
- Garage doorsets
- Partitioning systems
- Roofing systems
- Roof lights and skylights
- Secondary glazing systems
- Security grilles
- Security screens
- Sheds and tool stores
- Shutters
- Sliding doorsets
- Strongpoints
- Temporary buildings
- Tool containers
- Turnstiles
- Void protection screens
- Windows
- Walls

How LPS 1175 works

LPS 1175 considers a product’s resistance to forced entry in terms of the size of tools – their concealability and power – used to attack it, plus the availability of the tools likely to be used and the time the intruders may be prepared to spend on the attack.

To take account of these varying factors, physical security products and systems are rated to LPS 1175 in terms of the resistance to forced entry – the length of delay – they provide against different levels of attack, as shown in the table below.

Security Rating to LPS 1175 Issue 7

	HIGH RISK	LPS 1175 SR 8	Products certified to this standard provide 20 minutes of resistance to extreme means of attempting forced entry into higher value storage areas.
		LPS 1175 SR 7	Products certified to these standards provide 10 minutes of resistance to professional means of attempting forced entry into higher value storage areas using a wide range of tools including mains powered tools.
		LPS 1175 SR 6	
		LPS 1175 SR 5	Products certified to these standards resist experienced attempts at forced entry using a wide range of tools including battery powered tools lasting up to 10 minutes (SR4 and SR5) or 5 minutes (SR3).
		LPS 1175 SR 4	
		LPS 1175 SR 3	
		LPS 1175 SR 2	Products certified to this standard provide 3 minutes of resistance to determined attack by an opportunist burglar using a range of techniques including those that involve creation of noise.
	LOW RISK	LPS 1175 SR 1	Products certified to this standard provide 1 minute of resistance to opportunist attempts at entry using a range of techniques including those that create noise such as those involving breaking glass.

The standard assumes that the intruders have full knowledge of the security product and are willing to make proportionate efforts in attacking it – the lower the risk of failure in breaching the physical security and the greater the value of the prize, the more likely they are to invest in the act. That investment could be in time and effort gathering intelligence about the target, planning the attack, obtaining the tools required and preparing their fitness and skills.

LPS 1175 also considers the threat posed by criminals or terrorists willing to conduct their attacks using the most effective methods available to them irrespective of noise – such as that from breaking glass.

These considerations differentiate LPS 1175 from the lower end of the spectrum of the European standard for physical security, EN 1627, which assumes criminals will use stealth and have little knowledge of the products they are targeting. As a result many products approved to EN 1627 may fail to provide very much delay to attacks in which the intruder is willing, for example, to make noise.

A robust testing regime

The demanding requirements of LPS 1175 mean that testing security products to the standard can be quite dramatic. A determined assault is launched on the door, window, panel, lock or other security product being tested by an operative armed with a wide range of tools – hammers, crowbars, chisels, drills, etc – and knowledge of likely weak points.

Not surprisingly, only a small proportion of new products pass this severe test the first time they are put through it. But these initial failures provide valuable, practical information on how the products can be made more effective. They also offer a warning to specifiers that many products and services on the market – which have not been independently tested and approved – could potentially fail to provide the security expected.

Growing use by manufacturers

Despite the challenges of LPS 1175, an increasing number of security product manufacturers now submit their products for testing to this burglary resistance standard.

“In adopting LPCB as our secure design marque,” said Terry Batten, Marketing Manager at Technocover Ltd, which produces a range of steel physical access protection products, “Technocover has aligned with a longstanding and respected authority in third-party approval of physical security products. The testing and certification of security products to LPS 1175 assures specifiers of the consistent levels of quality and durability wherever physical protection is needed.

“Another widely recognised strength of LPCB is that products are subject to on-going appraisal,” said Batten. “Approval is not just based on a one-off test of a sample design. Through regular audits, LPCB certification ensures that the product continues to comply with standards and revisions.”

Certification of products to LPS 1175 can provide a route into the building security markets. Sheet metal and fabrication company, PSF (Wales) Ltd, for example, had its range of security buildings and doors tested to Levels 2, 3 and 4 of LPS 1175. This opened new markets for PSF, providing the diversity that can help the company to position itself in the best place to protect its future in the current trying market conditions.

Oldham based locking system manufacturer, Tindall Engineering, makes regular use of LPS 1175 for its security locks. “We became involved with LPS 1175 to help us move into the security side of the business,” said David Milne, Operations Manager at MICO-Tindall. “We now make extensive use of the standard and it plays a key role in driving our business.”

“Testing our door locks to LPS 1175 helps us greatly with their development,” said Milne, “and produces a lot of information that we are able to pass on to our clients – doorset manufacturers for example – providing them with the confidence that the locking systems will work very effectively, and will not fail when their products are, in turn, tested to LPS 1175.”

While LPCB’s testing to LPS 1175 is often carried out at BRE Global’s laboratories in Watford, the tests can be performed at manufacturers’ own facilities.

As a high proportion of the products tested fail to deliver the performance that companies were hoping to achieve, being able to test the products at their own sites rather than sending them to BRE Global’s Watford test facility helps them to more quickly and efficiently overcome those failures, and develop more effective security products.

Conducting tests at their sites also allows manufacturers to avoid the costs of transporting samples to Watford. Then, if the products fail during testing, they can modify them using their manufacturing facilities and have the modified samples retested later in the programme. This avoids delays that can occur if manufacturers test at BRE Global and have to send away for modified samples or components, and can therefore speed up the certification process.

A number of manufacturers are already taking advantage of this. “Increasingly the process of attack testing of our products by LPCB is being undertaken on site at our Welshpool factory,” said Terry Batten of Technocover.

This is not restricted to the UK, the test equipment is portable and the team has already conducted tests in mainland Europe, and is in discussion with American, Middle Eastern and African companies interested in having tests conducted at their own facilities.

Wide uptake by specifiers

Use of LPS 1175 certificated products has been adopted across many sectors in the UK and now increasingly in other countries, particularly the Middle East. In fact, specification of physical security equipment that is certificated to LPS 1175 and included in the freely accessible list of approved products known as the Red Book (www.redbooklive.com), is spreading right around the globe.

The value of certification requirement to specifiers is emphasised by the fact that LPCB fails 95% of new products submitted for test, a reflection of the number of products on the market that could potentially fail to provide the security expected when needed.

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