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CONTAINERISED MODULAR DATACENTRES
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Dedicated to protecting your critical assets and infrastructure

MAVIN POWERCUBE CERTIFIED SECURE CONTAINERISED MODULAR DATACENTRES AND MODULAR BUILDINGS

mavin™
desktop to datacentre

For more information
please contact us today:

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LPCB
LPS1175 SR3, SR4 and SR5
Modular Security Enclosure
and Partitioning System

European Ballistic Standard
EN1063 - BR2 (NSR), BR3 (SR),
BR5 (NSR) BR6 (NSR)

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Introduction

Mavin Powercube incorporates secure rated panels and/or ballistic rated panel systems, SR rated doors, access panels and high-security, multi-level locking systems into the design and build of our bespoke Containerised and Modular Building Solutions where there is a need for increased physical protection.

The secure rated panel system is a premium modular composite panel system, combined with Mavin Powercube's bespoke solutions, we enable companies and Government bodies to protect high-risk facilities such as Datacentres, POP's, Base Station Hotels, UPS Power Modules, Utility Company Control Rooms and Nuclear Sites. Essentially we can design and build you a solution that meets your exacting security requirements.

Developed to withstand determined attack from a wide range of tools and firearms, they are the ideal way to safeguard your critical infrastructure and facilities.

Rigorously tested, it is approved for Government use by the Centre for the Protection of National Infrastructure (CPNI) and provides a high security panel solution to Loss Prevention Standard (LPS) 1175 Security Rating (SR) 2, 3, 4 and 5.

In addition, we offer ballistic rated panels, a high security panel system certified to Ballistic Standards EN1522/23 (1999) FB2, FB3, FB4, FB5 and FB6 with a non-spall rating.

We have vast experience of working across a broad spectrum of sectors, and our client experience includes data centres, Government infrastructure, airports, healthcare facilities, universities, banks and cargo facilities.

We also work with private clients in protecting high value items in their homes.

Mavin Powercube high security modular building solutions

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Your personnel, assets and data are critical - should you consider Mavin Powercube's secure certified solutions?

TRADITIONAL BUILD   **POWERCUBE**

	TRADITIONAL BUILD	POWERCUBE
LABOUR	**353**hrs	**90**hrs
TOTAL	**706**hrs	**179**hrs

Labour saving costs due to speed and ease of installation (build time and no wet or hot trades).

Figures based on a 3600 x 14,000 x 3000 build assuming a 2 person team

LPBC SR5

A pre-certified system (i.e. certification built in under factory controlled conditions) and "instant" approval to a LPBC SR5 security standard.

ALL IN ONE

Negates need for multi-layered traditional build - i.e. the secure rated panel's composite prime barrier provides Security Rating, Fire Rating, Thermal Efficiency and a Watertight external solution (most of the competition can't offer all of this without other layers and alternative building methods)

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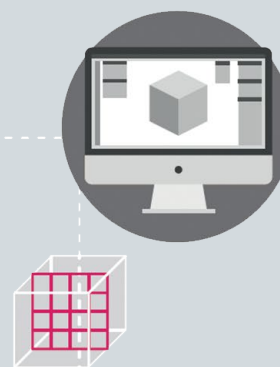+ SPECIAL CONTAINERISED SOLUTIONS

Turn-key Solution Wrap

Full Technical support including design package, aftercare and installation inspection and sign off.

Mavin Powercube's bespoke Security Systems are deployable within our Containerised modular solutions, new builds and retro-fit into existing structures.

In-house CAD design team and resource. Specialised Project Management.

We cover the following sectors:

DataCentres and Server Rooms

Military Installations

Nuclear Infrastructure and Radioactive Materials Storage

Utilities and Infrastructure

Financial Institutions

Healthcare Facilities

Cargo Areas

Retail

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Secure Solutions

Mavin Powercube's secure solutions are available in a variety of different compositions in order to satisfy a broad range of differing security requirements.

Providing security solutions at Loss Prevention Standard (LPS) 1175 Security Rating (SR) 2, 3, 4 and 5, the secure rated panels are approved for Government use by the Centre for the Protection of National Infrastructure (CPNI).

The highest rated system is designed to resist attack by tools including drills, gas torches, and sledgehammers, felling axes, jigsaws and disc grinders.

Its high-security level and innovative design means that it is ideal for the construction of secure environments to protect areas containing servers, sensitive data and documents, hazardous substances, high value items and pharmaceuticals. The system is quick and easy to install, with minimal disruption. It is entirely bespoke, can be designed to specification and offers a complete modular solution including wall, ceiling and floor panels.

We incorporate secure rated panels into our secure-level bespoke Containerised Modular DataCentres and Special Containerised Solutions.

Our teams can design and build a fully operational single or multi-floor modular building, retro fit a room within an existing building or we can install as a 'standalone' wall or partition, whatever is required.

The solutions are weather and water-resistant, making them suitable for both internal and external applications.

Mavin Powercube's Certified Secure Solution can be offered as a full turnkey deliverable, via approved and certified Mavin Installers.

The secure rated panels are also pre-finished, negating the need for wet or hot trade requirements. This provides a substantial cost saving in terms of materials, turnaround time and labour when compared to more traditional building methods.

Compliance for approved certification is rigorous. All installations must adhere to strict specifications, and be commissioned and certificated by Mavin Powercube.

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Applications

The secure rated panels provide a premium, physical security barrier which can be used wherever there is a requirement to safeguard high-risk areas, protect critical equipment, or provide a last line of defence against acts of terrorism, theft or vandalism.

The high-security, modular composite panel solution we provide is used across a wide range of industry sectors across a broad range of applications.

The secure rated panels overcome a number of on-site restrictions posed by traditional building methods, it can be designed to specification and offers heightened security solutions for rooms in a building, entire external building envelopes or simply offers high security partition walls. The system has both internal and external applications.

Secure Rated Panels - ideal for use in DataCentres and Server Rooms

Physical security breaches can lead to catastrophic consequences for data centres, such as the theft of or damage to high value network equipment – including server units – and sensitive and confidential data falling into the wrong hands. Breaches can also cause major interruptions to service.

The panels have an impressive security rating of up to LPS 1175 SR5 and can be used to create a secure environment within an existing structure, or be retro-fitted into a new-build, it is therefore ideal for the protection of servers, IT hardware and sensitive data against a physical security breach.

It is quick and easy to install and is pre-finished, negating the need for any wet trades and keeping any disruption to operations down to a minimum.

It is also hygienic – crucial in ensuring that server rooms are kept dust-free.

To discuss securing your DataCentre or Server Room, or for more information, call the Mavin Team on (0845) 612 1155 or email contact@mavin.global

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Ballistic rated panels
World Leading Enhanced Ballistic Protection Panel System

Certified to Ballistic Standards EN1522/23 (1999) FB2, FB3, FB4, FB5 and FB6 with a non-spall rating, the ballistic rated panels are ideal for use in the nuclear, utilities, defence and additional high risk sectors.

The ballistic rated panels provide protection against AK-47s and other assault rifles, as well as a range of handguns, including a 0.44 calibre Magnum weapon.

The ballistic rated panels can be used to create walls and free standing enclosures. It can also be retro-fitted to a ballistic lining into existing buildings.

We offer a turnkey ballistic package that achieves a ballistic solution combined with SR4 security, fire ratings and thermal efficiency in one lightweight panel.

The ballistic rated panels have been designed for use in the following environments:

Gatehouses

Critical Government Infrastructure Sites

Guard Huts

Perimeter Buildings

Utilities Facilities

Nuclear Facilities

Military Installations

DataCentres and Server Rooms

Ballistic Ratings Explained:

EN1522/23 (1999) FB2	Tested against hand guns with bullet calibre 9mm Luger
EN1522/23 (1999) FB3	Tested against hand guns with bullet calibre 0.357 Magnum
EN1522/23 (1999) FB4	Tested against hand guns with bullet calibre 0.357 Magnum and 0.44 Magnum
EN1522/23 (1999) FB5	Tested against rifles with bullet calibre 5.56 X 45
EN1522/23 (1999) FB6	Tested against rifles with bullet calibre 5.56 X 45 and 7.62 x 51

The ballistic rated panels offer the same benefits as the secure rated panels system, including:

- Quick and easy to install with minimal disruption.

- Entirely bespoke, can be designed to specification and offers a complete modular solution including wall, ceiling and floor panels.

- Available in a wide range of core types to satisfy insulation and fire rating requirements.

- Weather and water resistant, making it suitable for both internal and external applications.

- Can be used as a 'standalone' wall or partition as well as a complete modular secure enclosure.

- Can be installed in new buildings or retro-fitted to an existing site.

- Pre-finished – no need for wet or hot trades on site, providing costs savings in materials, turnaround time and labour when compared to more traditional builds.

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Technical Specification

LPS 1175 Security Ratings

The secure rated panels system has achieved Loss Prevention Standard (LPS) 1175 ratings from SR2 to SR5. The LPS 1175 security ratings are set by the Loss Prevention Certification Board (LPCB), which works closely with the police, Government, insurers, risk consultants and architects to develop its standards.

The LPCB's standards and approvals for security products are recognised across the globe and it undertakes rigorous technical evaluation work and quality audit processes to ensure the security products it approves deliver proven levels of protection.

During testing, a team of experienced testers use a range of tools, as listed in the categories below, to attack the sample product. As the rating increases, the range of tools tested becomes broader and the time given to the team increases. The testing is extensive and exhaustive.

To reach each rating level, the panel must not be breached up to the maximum test duration set (the entire duration of the test, including time to think, change appliance batteries etc) and the maximum test time set (the amount of time the panel is actually in physical contact with a tool during an attack).

Ratings Explained

LPS 1175 SR1

Product is certified to protect against attacks using bodily force and stealth, with minimal tools.

TEST DURATION: 10 minutes. TEST TIME: 1 minute.

To achieve the LPS 1175 SR1 rating, the product is tested against Category A tools listed below.

Adhesive tape

1 Cable cutter – 150mm long

Fishing line (e.g. polypropylene multi fibre)

Flexible plastic coupon

1 Glass cutter

Hexagon wrenches – selection 120mm long

Hooks, punches, wire, rope

1 Knife – blade 125mm long x 3 mm thick

1 Lever – 0.7kg/300mm long

Pliers (including self-gripping) – selection 200mm long

1 Screwdriver – 6.5mm diameter/square x 150mm long

Spanners – selection 150mm long

Tweezers

Wood/plastic wedges

LPS 1175 SR2

The product is certified to protect against determined opportunistic attacks by bodily physical force using tools with a higher mechanical advantage.

TEST DURATION: 15 minutes. TEST TIME: 3 minutes.

To achieve the LPS 1175 SR2 rating, the product is tested against Category A tools, plus Category B tools listed below:

1 Bolt cutter – 350mm long

1 Claw hammer – 350mm long/0.7kg

1 Drill bit (6mm diameter jobber – HSS/HSCO/Carbide)

1 Hand drill – 400mm long/1.5kg

1 Junior hacksaw plus 2 HSS blades

1 Metal plate shears – 200mm long

1 Multiple slip joint pliers – 250mm long

1 Pipe wrench – 250mm long

Pliers (including self-gripping) – selection 250mm long

1 Screwdriver – 7mm diameter/square x 250mm long

1 Screwdriver – 14mm diameter/square x 400mm long

1 Tube – 38mm diameter x 300mm long

LPS 1175 SR3

The product is certified to protect against deliberate forced entry of well-protected premises using bodily physical force and a wide selection of attack options.

TEST DURATION: 20 minutes. TEST TIME: 5 minutes.

To achieve the LPS 1175 SR3 rating, the product is tested against Category A and B tools, plus Category C tools listed below:

1 Axe – 350mm long/1.5kg

Brick bolsters – 250mm long x 75mm wide blade

Cold chisels – 250mm long x 25mm wide blade

1 Crowbar – 700mm long/2.5kg

1 Drill (cordless with rotary action only)* – 7.2V DC

1 Drill bit (10mm diameter jobber – HSS/HSCO/Carbide)

1 Gas torch (Butane/Propane)

1 Hacksaw plus 2 HSS blades

1 Hammer – 400mm long/1.5kg

1 Pad saw plus 2 HSS blades

1 Scissor jack – 750kg capacity, 100mm minimum retracted, 200mm stroke

Wood chisels – 250mm long x 25mm wide blade

*All cordless power tools are fully charged with a spare power pack.

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LPS 1175 SR4

The product is certified to protect against experienced attempts at forced entry.

TEST DURATION: 30 minutes. TEST TIME: 10 minutes.

To achieve the LPS 1175 SR4 rating, the product is tested against Category A, B and C tools, plus Category D tools listed below:

1 'A-tool' lock puller – 500mm long

1 Bolt cutters – 500mm long

1 Disc grinder (cordless)* – 12V DC with 3 cutting discs

1 Drill (cordless with rotary action only)* – 12V DC

5 Drill bits (13mm diameter jobber – HSS/HSCO/Carbide)

1 Felling/fire axe – 850mm long/3 kg

1 General purpose saw

1 Hole saw – 50mm diameter

1 Hooligan bar – 760mm long

1 Jigsaw (cordless)* – 12V DC with 3 HSS / HSCO / Carbide blades

1 'K-tool' lock remover

1 Plate shears – 300mm long

1 Sledgehammer – 750mm long/3 kg

Steel wedges – 150mm long

1 Tube – 75mm diameter x 500mm long

LPS 1175 SR5

This product is certified to protect against serious attempts at forced entry with a range of battery power tools.

TEST DURATION: 30 minutes. TEST TIME: 10 minutes.

To achieve the LPS 1175 SR5 rating, the product is tested against Category A, B, C and D tools, plus Category D+ tools listed below:

1 "A-tool" lock puller – 500 mm long

1 Bolt cutters – 500 mm long

1 Circular saw (cordless) – 18V d.c/200mm diameter with 3 blades

1 Disc grinder (cordless)* – 18V d.c with 3 cutting discs

1 Drill (cordless with rotary action only) – 18V d.c*

5 Drill bits (13 mm diameter jobber – HSS / HSCO / Carbide)

1 Felling/fire axe – 850 mm long/3 kg

1 General purpose saw

1 Hole saw – 50 mm diameter

1 Hooligan bar – 760 mm long

1 Jigsaw (cordless) – 18V d.c with 3 HSS / HSCO / Carbide blades*

1 "K-tool" lock remover

1 Plate shears – 300 mm long

1 Reciprocating saw – 18V d.c with 3 HSS / HSCO / Carbide blades*

1 Sledgehammer – 750 mm long/3 kg

Steel wedges – 150 mm long

1 Tube – 75 mm diameter x 500 mm long

* Complete with one spare power pack.

Note: This tool category is for experienced attempts at forced entry.

*All cordless power tools are fully charged during testing, with a spare power pack.

CPNI STANDARDS

Working in collaboration with Mavin Powercube, Securiclad is approved for HM Government and Ministry of Defence use by the Centre for the Protection of National Infrastructure (CPNI), an organisation which protects national security by providing protective security advice, covering physical security, cyber security/information assurance and personnel security.

CPNI assures a wide range of physical security products for use on critical national infrastructure (CNI) sites. This assurance is provided against national security threats including terrorism, espionage, organised crime, cyber threats, and the proliferation of weapons of mass destruction. (The amount of time the panel is actually in physical contact with a tool during an attack).

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Case Study

Secure Data Room
External solution for a leading London university

A secure data room was designed and installed for a world-renowned London university, enabling it to protect servers and sensitive electronic information from forced entry, fire and weather damage. The installation, which formed part of a significant investment by the university in security, is situated in a former underground car park.

PROJECT REQUIREMENTS

A LPS 1175 SR4 rated secure solution was requested by the university's design consultant to provide a secure data room that needed to not only withstand attempts at forced entry, but that also had to be weather resistant, durable, watertight and fire resistant for up to four hours.

There was also a further structural challenge: to overcome the space and height restrictions created by the underground site. Therefore the panels provided were made to measure off-site so that they could accommodate the sloping roof, once installed.

In addition, delivery and installation were time-critical, as the room needed to be completed before mechanical and electrical contractors completed their phase of the project – any delay would have hindered their progress.

By manufacturing a bespoke system for the university and supplying pre-finished panels, (therefore negating the need for wet trade requirements), the installation time was kept to a minimum, enabling the project to be completed on schedule and to the requirements of other contractors.

Solution consultation, technical expertise and guidance was provided to the clients team at the design stage, evolving a true collaborative solution. The installation was undertaken by trained and certified personnel fully conversant with the solutions and pre-determined parameters for compliance.

TECHNICAL INFORMATION

The system provided for the university:

- High security wall, ceiling and floor panels rated to LPS 1175 SR4 to form a 220 sqm secure room

- Bespoke pre-finished panels cut in line with graduated roof space

- Complies with four hour fire rating

- On-site construction and installation within existing underground structure

- Watertight environment

- White finish