



# TEMPEST doorset

Electromagnetic shielding for  
high-security environments



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# Advanced protection for sensitive spaces

## Shielding sensitive spaces with confidence

At ASSA ABLOY Door Group, we engineer advanced high-security door solutions designed to protect sensitive environments against electromagnetic and physical threats. Our TEMPEST-rated steel doorsets provide exceptional shielding performance, ensuring the confidentiality, integrity and security of critical spaces.

Whether you're safeguarding government facilities, military command centres, secure communication rooms, financial institutions or high-risk commercial environments, our TEMPEST solutions deliver reliable defence against electromagnetic emanation and data interception.

With decades of experience and the strength of a global organisation, we support architects, contractors and facility managers with fully certified, project-specific security solutions. Our high-performance doors are rigorously tested and independently accredited, trusted by leading organisations responsible for national infrastructure, defence intelligence and high-security operations.

### Sustainability at the Core

We are committed to reducing environmental impact across the entire product lifecycle. Our security doors are designed with durability and recyclability in mind, supported by responsible sourcing, low-carbon materials and energy-efficient manufacturing processes. Through Environmental Product Declarations (EPDs), lifecycle assessments and alignment with green building frameworks such as BREEAM and LEED, we help clients achieve sustainability goals without compromising on safety, performance or security.



# Electromagnetic threat protection

## Protecting sensitive information through proven electromagnetic shielding

Sensitive information can be exposed through unintended electromagnetic emissions from electronic equipment. In high-security environments, controlling these emissions is essential to protecting data, communications and operational integrity.

Electromagnetic leakage can be exploited to intercept and reconstruct confidential information without physical access. Advanced surveillance techniques enable signals to be captured remotely, creating significant risks for secure facilities and mission-critical operations.

Effective protection relies on fully shielded environments. While Faraday enclosures form the foundation of electromagnetic defence, doors represent one of the most vulnerable points if not specifically engineered to maintain shielding integrity.

TEMPEST-rated doorsets are designed to address this risk — preventing signal leakage at openings and supporting continuous electromagnetic protection throughout secure spaces.



### Why electromagnetic shielding matters

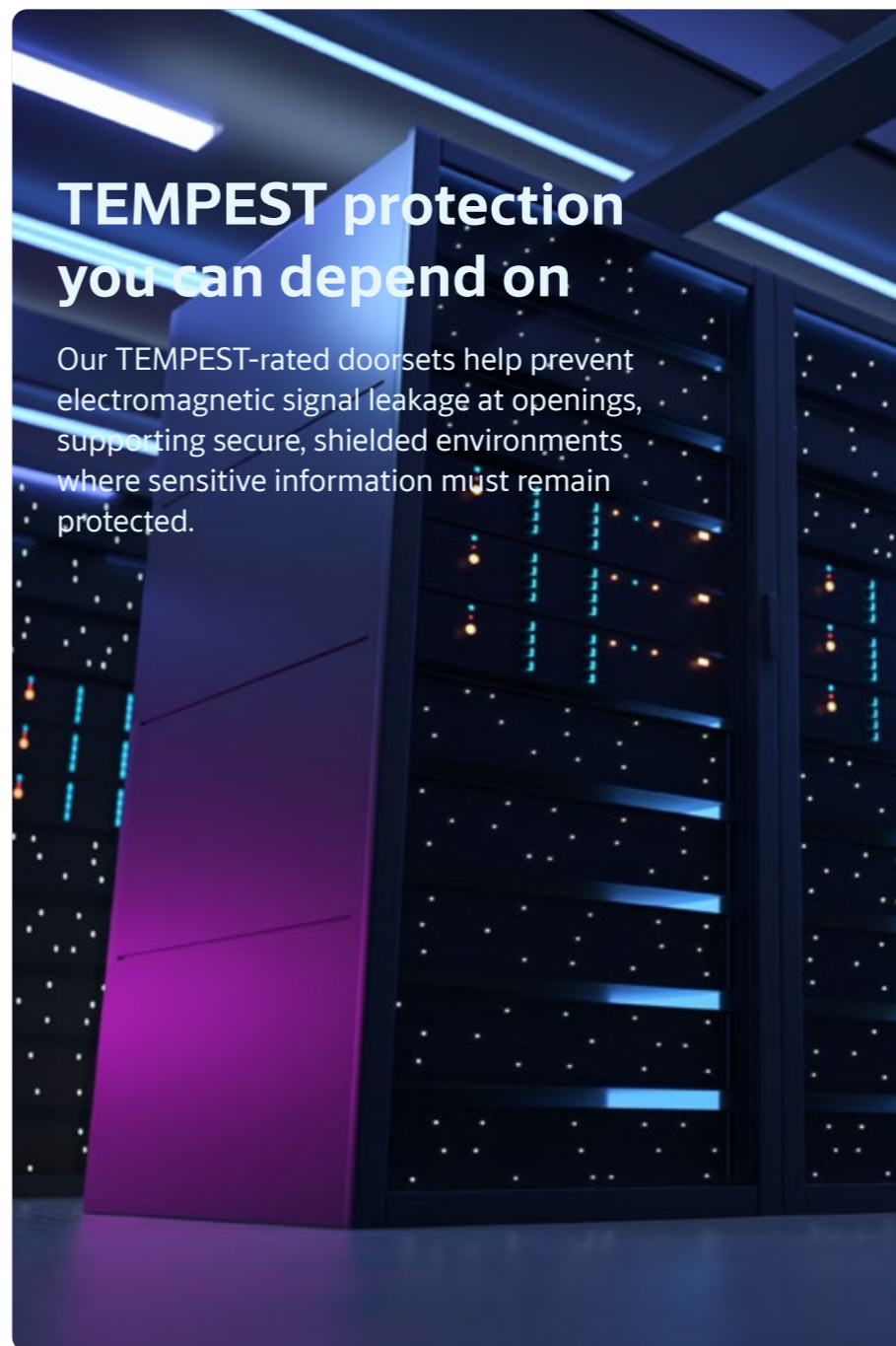
Electromagnetic emissions can compromise confidentiality, integrity and operational security if not properly controlled. In high-risk environments, even minor leakage can present serious vulnerabilities.

### Supporting secure environments

TEMPEST protection supports facilities where sensitive data, communications and operations must remain secure, resilient and protected against interception.

### Designed for high-risk applications

TEMPEST-rated doorsets help maintain electromagnetic integrity in environments where security cannot be compromised.



## TEMPEST protection you can depend on

Our TEMPEST-rated doorsets help prevent electromagnetic signal leakage at openings, supporting secure, shielded environments where sensitive information must remain protected.

## Applications

Facilities that process or handle classified or sensitive information depend on reliable electromagnetic shielding. This includes:

- Government and defence facilities
- Military command and control centres
- Diplomatic and intelligence buildings
- Critical national infrastructure
- Secure data centres and communication rooms



## Building confidence in electromagnetic security

Our TEMPEST doorsets combine proven shielding performance with robust construction to support secure, compliant environments.

# TEMPEST doorset engineering

Engineered to maintain electromagnetic integrity at the most critical point — the door.

Protecting the integrity of secure environments begins at the door. TEMPEST-rated steel doorsets are engineered to prevent electromagnetic signal leakage while providing robust physical protection for high-security applications.

Built with precision-engineered components and specialist shielding materials, TEMPEST doors support the confidentiality, integrity and operational security of defence, government and mission-critical facilities.

As a critical interface within shielded environments, the door must deliver consistent electromagnetic performance without compromising security, durability or day-to-day operation. The TEMPEST doorset is engineered as a complete system, with construction, sealing and hardware designed to work together to maintain electromagnetic integrity at openings.

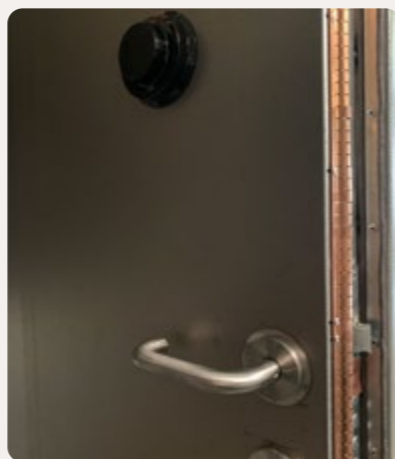


## Electromagnetic shielding

Verified attenuation across a wide frequency range to IEEE 299-2006.

## High-security construction

Reinforced steel doorset with anti-burglary protection, certified to RC4.



## Precision sealing system

Integrated metal gasket system maintains electromagnetic integrity at the perimeter.

## Tested & certified

Independently verified for shielding, mechanical strength and security performance.

## Customisable design

Range of sizes, finishes and hardware options to suit project requirements.

## Seamless integration

Designed for Faraday cages, SCIF environments and secure RF rooms.

# Technical Specification

## Door frame

3 mm angular steel profile incorporating an integrated metal gasket system to provide full perimeter electromagnetic sealing.

## Door leaf

2.0 mm zinc-plated steel sheets without additional coverings, filled with mineral wool (60 kg/m<sup>3</sup>) to provide rigidity and enhanced structural stability.

## Overall thickness

90 mm leaf depth, including the full metal gasket assembly.

## Hinges

Four welded steel hinges with bearings to ensure durable, smooth operation under repeated use.

## Anti-burglary bolts

Three reinforced anti-burglary bolts provide additional resistance to forced entry.

## Locks

Class 7 main expansion lock supplied as standard, with options for additional high-security locks and combination lock systems to suit project requirements.

## Door closer

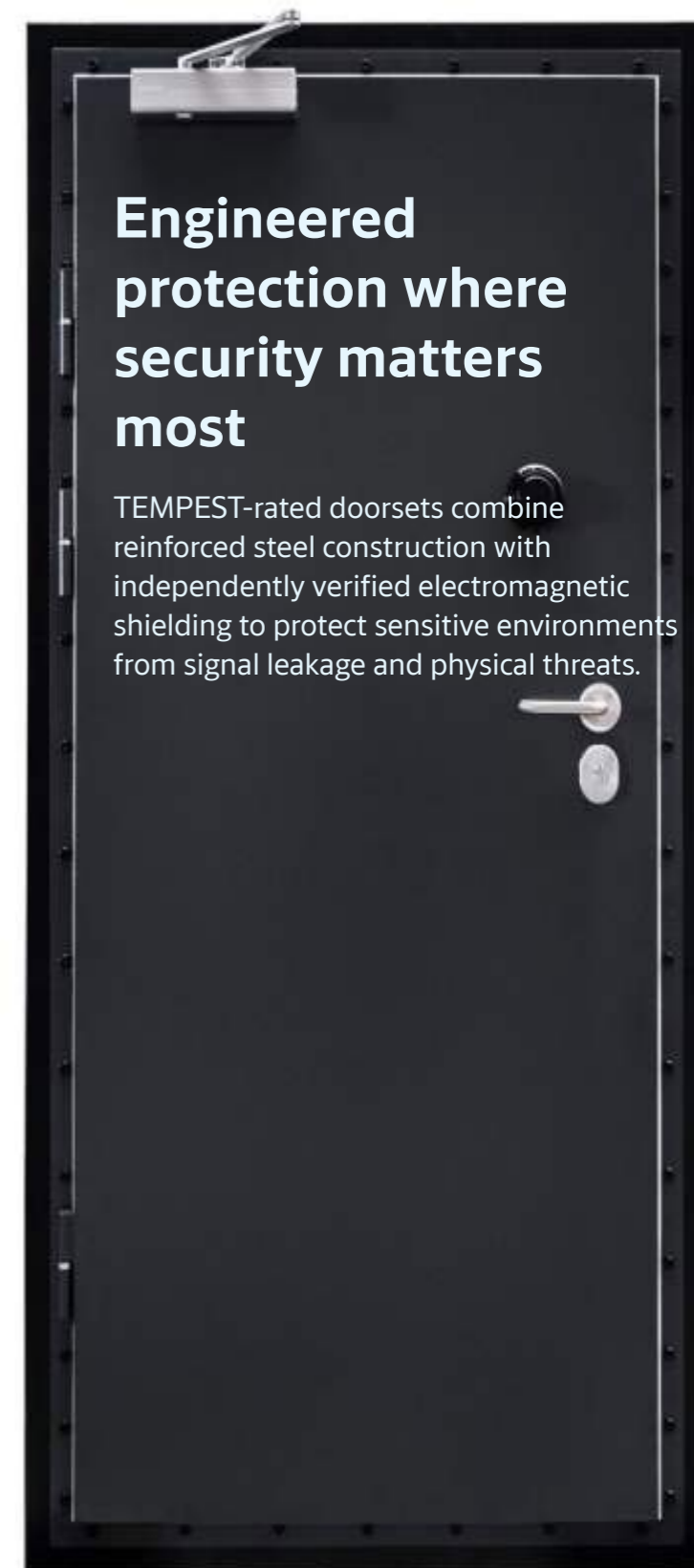
Optional, depending on application and operational requirements.

## Surface finish options

Available in powder-coated RAL colours, or premium timber veneer/ natural wood finishes, allowing the doorset to integrate seamlessly into secure environments without compromising performance.

## Engineered protection where security matters most

TEMPEST-rated doorsets combine reinforced steel construction with independently verified electromagnetic shielding to protect sensitive environments from signal leakage and physical threats.



Protecting sensitive environments from electromagnetic leakage is essential for maintaining confidentiality and preventing remote interception. Independent testing verifies that the TEMPEST doorset delivers high-performance attenuation across the full operational frequency range.

## Electromagnetic shielding performance

### Verified performance across threat-relevant frequencies

Independent testing confirms performance typically ranging from around 45 dB to over 110 dB, depending on frequency and field polarisation.

### Low frequencies (30–200 MHz)

At lower frequencies, the doorset achieves approximately 60–112 dB of attenuation, supporting protection against long-range interception methods.

### Mid-band (200 MHz–1 GHz)

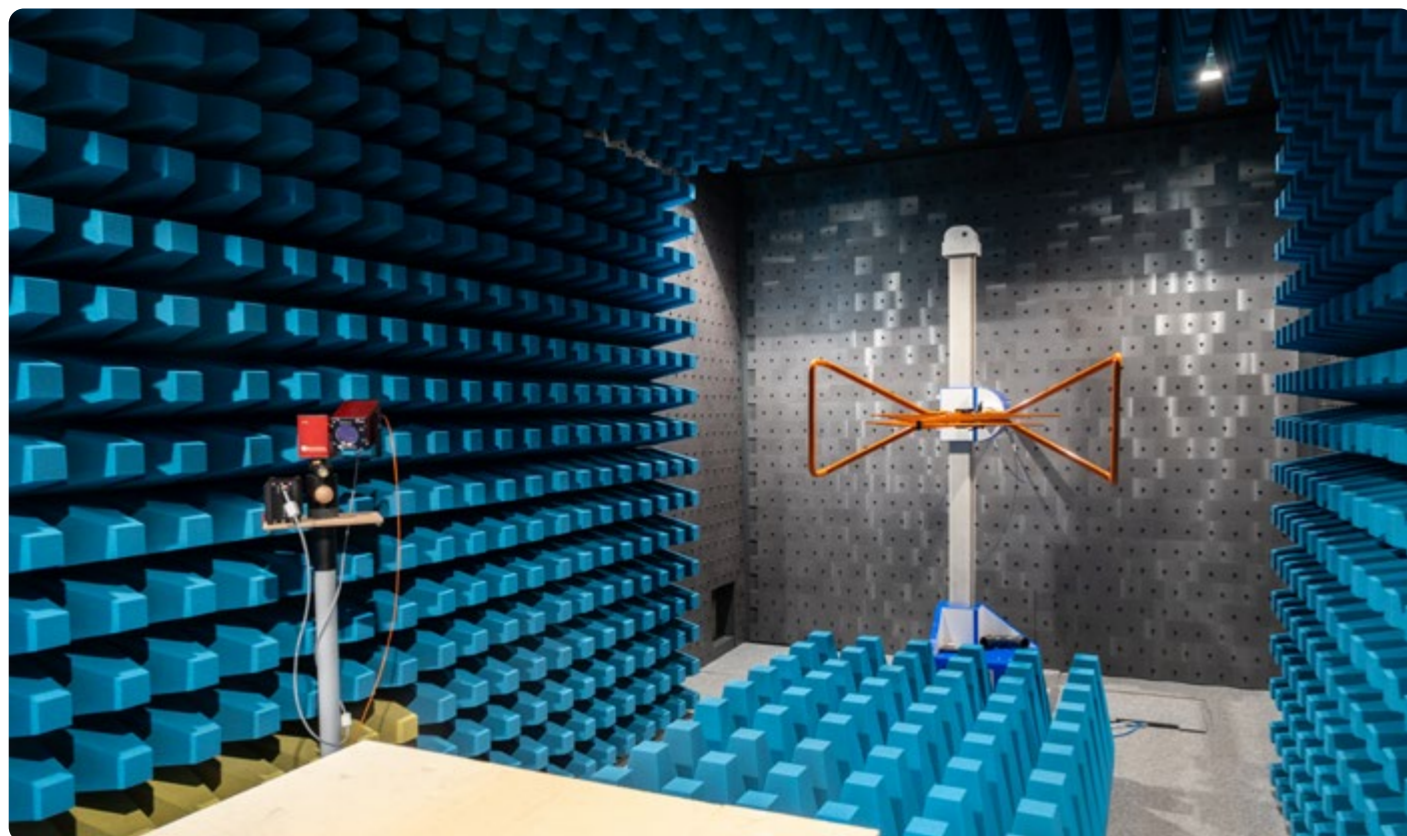
Across the mid-band, shielding performance remains robust, typically reaching around 54–109 dB.

### High frequencies (up to 5 GHz)

Even at higher frequencies, the doorset continues to provide effective protection, delivering around 45–92 dB of attenuation to reduce high-frequency leakage.

### Installation requirement

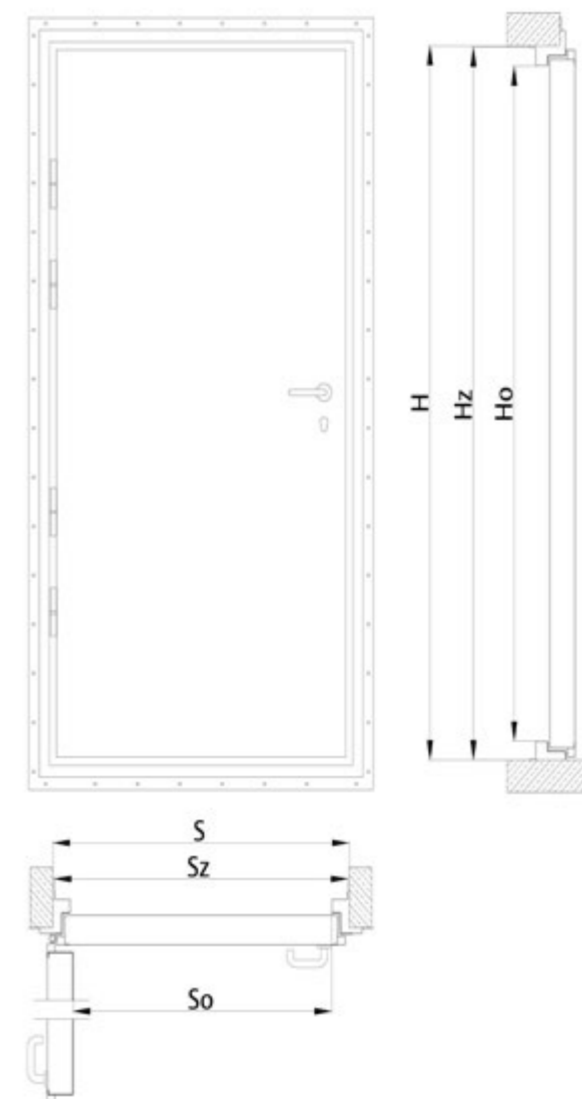
To achieve these shielding levels in practice, TEMPEST doors must be installed within shielded wall structures of minimum 180 mm, using engineered steel assemblies designed to maintain continuous electromagnetic integrity.



## Dimensions & clearances

Correct sizing is essential for ensuring full performance and seamless installation of the TEMPEST doorset. The following dimensional relationships define the required wall opening, external frame size and installation clearances. All values are expressed in millimetres and should be confirmed against project-specific fabrication drawings.

	Width	Height
Wall Opening S/H [mm]	$S=S_z+10$	$H=H_z+10$
External Dimension Sz/Hz [mm]	$S_z=S_o+130$	$H_z=H_o+120$
Clearance Dimensions So/Ho [mm]	$S_o$	$H_o$



Delivering innovation, security, and performance through high-quality steel and timber door solutions.

As part of ASSA ABLOY EMEIA Door Business Segment, Door Group leads the market in advanced steel and timber doors engineered for safety, compliance and long-term durability.

# Who We Are

Backed by global expertise and UK-based manufacturing, we deliver tailored solutions for diverse environments through our trusted brands: Powershield, Prima, Safeguard and SMARTec. Every doorset is rigorously tested, fully certified and built to deliver consistent, reliable performance.

We offer a complete end-to-end service, from product-specific drawings and technical guidance through to manufacturing, installation and maintenance—supporting architects, specifiers, contractors and facilities managers across sectors including healthcare, education, commercial, logistics and government.

Our nationwide Service, Maintenance & Repair teams provide expert support

throughout the building lifecycle, while our accredited Fire Door Inspection service helps maintain safety and compliance. With deep technical knowledge and a commitment to continuous improvement, we deliver dependable products, efficient delivery and professional support.

We remain committed to responsible manufacturing and long-term product performance, helping clients meet both safety and sustainability goals across their buildings.

We also work closely with trade partners, supplying fully certified doorsets and providing the digital tools and support needed to deliver compliant, high-quality installations.

# What sets us apart



#### International Partner

As part of the global ASSA ABLOY Group—operating in over 70 countries with 61,000 employees—we bring world-class expertise in access control, entrance automation, and identification technology to every project.



#### One of the Market Leading Providers

We are one of the UK's leading providers of door opening solutions, offering everything from mechanical and digital locks to high-security doors and smart access systems—designed to meet the some of the highest standards of safety, performance, and compliance.



#### High-Performance Doors

We deliver fully certified steel and timber doorsets, backed by DHF and BRE-trained engineers and a dedicated fire door inspection scheme. Our doors protect critical infrastructure including airports, hospitals, and transport networks.



#### Specification Expertise

Our expert team supports every stage of your project—from design to installation—offering BIM-ready packages, lifecycle cost analysis, and tailored solutions for efficient, sustainable building design.



#### Trusted Hardware

Our comprehensive hardware range includes mechanical locks, access control systems, fire door safety products, and hands-free solutions—trusted by institutions like Edinburgh University and NHS Trusts across the UK.



#### World-Class Service

From training and compliance support to maintenance and inspection, our services are designed to give you complete confidence in your door systems—whatever the size or complexity of your estate.



#### Openings Studio™

Our cloud-based BIM software, Openings Studio™, enables seamless collaboration across the building lifecycle—helping architects, contractors, and facilities managers design, manage, and maintain door openings with precision.



#### Design4Doors

Our Design4Doors service brings your vision to life with tailored door design support, finish samples, and visual mock-ups—helping you specify with confidence and align aesthetics with performance from the very start.

Every building or estate has its own needs. Finding the right product will depend on an extensive range of factors, the intended use of a building and ease of access through it, the level of traffic passing through a building, future development plans, and so on. Whatever you need, our range of high-quality support services can help. Every day, we help you experience a safer and more open world.



### Working together for safer, smarter buildings

We collaborate with architects, contractors and facility teams to ensure every doorset meets the performance, safety and compliance needs of modern buildings. Our trusted expertise supports confident decision-making at every stage of a project.

### Putting quality and service at the heart of every project

With UK-based manufacturing, certified products and dedicated support services, we deliver reliable solutions designed to perform. Our commitment to quality, clarity and long-term partnership ensures better outcomes for clients and end users alike.



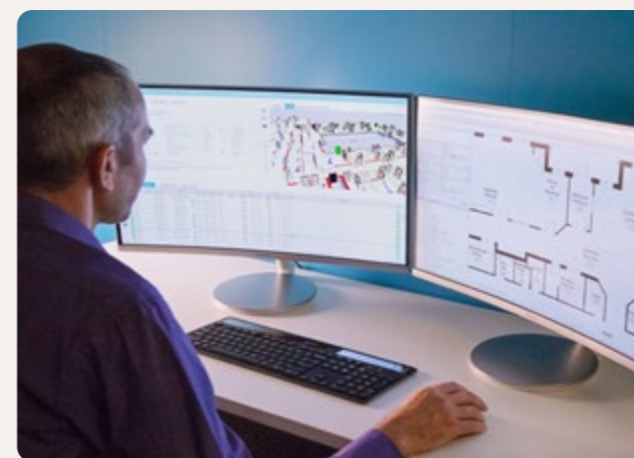
# Tailored services for every project

Every project has different needs. Our tailored services combine technical support, specialist expertise and practical guidance to help you design, deliver and maintain high-performance door solutions. Across specification, project delivery, training and aftercare, we provide clear, consistent support at every stage.



### Architectural specification

- Help you create compliant and accurate schedules.
- Prepare specification briefs and streamline the process to help mitigate potential risk.
- Design complete door opening solutions for all applications and security requirements.



### Project management, design and construction

- Complete technical support service tailored to your project needs.
- Support day-to-day practical demands of your environment.
- Translate architectural design and performance expectations into reality.



### Training courses

- RIBA-accredited training provider offering individual or combined CPD courses for architects.
- Deliver product training and education programs tailored to your specific needs.
- Share knowledge and expertise to give you a competitive edge.



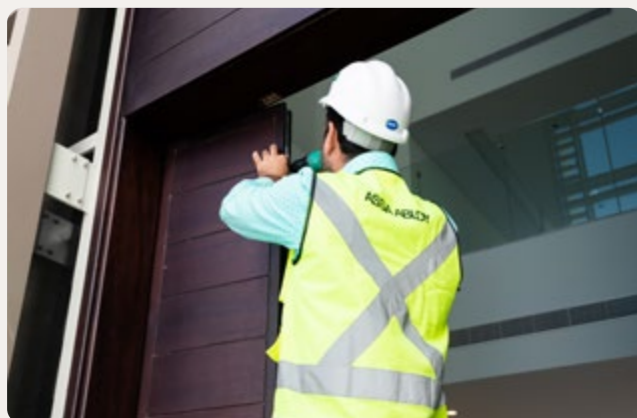
### Testing & Accreditation

- Integrity, ingenuity, and innovation—meeting the highest technical standards.
- Custom-built UKAS performance testing laboratory.
- All products independently tested with third-party accreditation.
- In-house facilities ensure consistent quality and compliance.



### Master Key Consultancy

- A suite for every scenario, no matter the size or scale of your site.
- Patented protection with unique features for greater security and authorised key cutting.
- Enables buildings to satisfy security and access needs with greater control.



### Service & Maintenance

- Aftersales solutions for end users and facility management companies.
- UK-wide coverage for fast, reliable support.
- Maintenance contracts include regular inspections, priority calls, and discounts on repair work.



### Fire door inspections

- Regular inspections to ensure health and safety compliance.
- Digitised fire door inspection software via mobile app for accurate reporting.
- Identify potential issues impacting safety and performance.
- Provide detailed reports with advice and recommendations for improvements.



### Surface repairs

- Expert solutions to restore and protect your doors.
- Repair scratches, dents, and surface damage for a professional finish.
- Revive coatings and finishes for a like-new look without costly replacements.
- Ensure compliance with fire and safety standards where applicable.

## Built on trust & expertise



#### Global expertise

Decades of proven leadership in access solutions worldwide



#### Trusted security

Reliable, certified solutions built to protect people and places



#### Smarter innovation

Technology that enhances safety, efficiency and user experience



#### Support that lasts

Guidance, service and care throughout every stage of your project



# Delivering confidence in high-security environments

We bring together certified performance, specialist engineering and expert support to help you deliver secure, compliant TEMPEST doorset solutions for mission-critical environments.

## Engineered protection and specialist support for secure, compliant environments



### Certified performance

Independently tested TEMPEST doorsets deliver verified shielding effectiveness across threat-relevant frequencies.



### Integrated capability

Electromagnetic protection combined with robust steel construction and RC4-rated physical security.



### Specification confidence

Clear technical documentation, verified standards and defined installation requirements support accurate specification.



### Specialist support

Expert guidance from specification through installation to help ensure performance is achieved in practice.



## Expertise you can rely on

TEMPEST doorset solutions are supported by specialist engineering knowledge, independently verified performance and clear technical documentation — giving confidence where security, compliance and information protection cannot be compromised.

Partner with us for  
confident delivery of  
TEMPEST-compliant  
security doorsets.

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and more open world

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