

HRBs – Where are we?

Fire Doorsets in HRBs- Legislation, Gateway 2 Compliance & Considerations.

OUR STORY

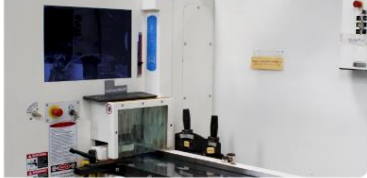
Gerda Security Products, part of the GSP Group, is a leading UK manufacturer of high specification, multi-performance fire doorsets in the social housing sector for almost 30 years and Specialist in Emergency Access Systems for 20 years. With nearly 200 employees and manufacturing sites; warehouse & distribution centre and training centre in East Anglia & the South East.

We are committed to making the built environment a safer place to live, by designing and extensively primary testing multi-performance products.

Our product design carefully considers building regulation requirements; performance criteria and innovation to solve challenges in the built environment.



UK MANUFACTURING



Safer Homes Range™
External Doorsets: EW30
Sa, EI30 Sa, E60 EI30 Sa

Contemporary Range™
External Doorsets:
EI30 Sa, E30 EI30 Sa

Safer Homes Range™
Internal Doorsets: FD60(S),
FD30(S)

Contemporary Range™
Internal Doorsets: FD30(S)



Secure Premises Information
Box (HSS PIB® C) & (PIB®)

Emergency Response Pack



The EACIE Enclosure™
(EACIE)



Access Control
Box™ (ACB)



The Barrier Gate Lock®
(BGL)



FDS Complete™
Loft Access Hatch



H System® lock



Service Room Fire Doorsets
Internal Fire doorsets FD60(S),
FD30(S)
External Fire doorsets EI30 Sa,
E60 EI45 Sa



FDS Complete™ Range
Internal Fire doorsets
FD60(S), FD30(S)



Firefighter Access Switch
(GFS)™



Fire Doorsets in HRBs – Legislation, Gateway 2 Compliance & Considerations.

RECENT FIRE SAFETY LEGISLATION

Fire Doorsets

Fire Safety Act 2021

Amended the RR(FS)O to include Flat Entrance Doorsets & External Envelope into risk assessments

Construction Products Regulation 305/2011

External doorsets with fire resistance, to meet designated standard BS EN 14351-1:2006+A2:2016 / BS EN 16034:2014 (UKCA marking)

Fire Safety (England) 2022 Regulations (10)

Introduced checks on fire doors
3 monthly on communal
12 monthly on flat entrance doors in buildings above 11m.
Advise residents of importance of fire doors & closers & report faults.

Building Safety Act

OPSS – National Regulator of Construction Products
Building Safety Regulator
Gateway 2 Compliance

BUILDING SAFETY ACT

Fire Doorsets

Office of Product Safety & Standards (OPSS)

Enforces:

- 1) The Construction Products Regulation affecting the Designated Standard for External Fire Doorsets
- 2) The General Product Safety Regulation affecting other fire doorset types.

Building Safety Regulator (BSR)

Oversees:

all buildings and is the regulator for HRBs, with the role of Building Control Body

Gateway 2

Is:

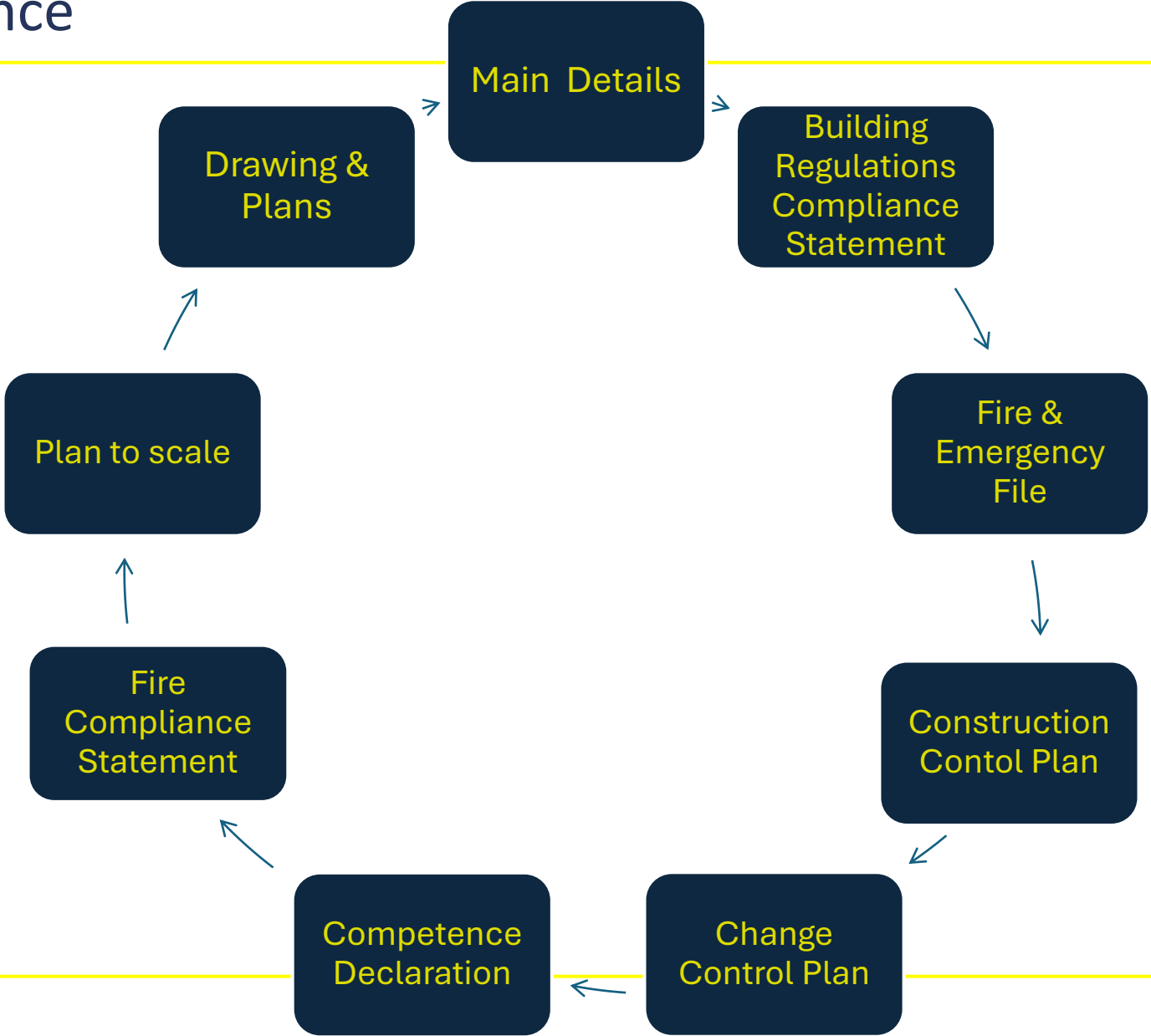
the stop/go point for the BSR to decide if all is compliant with building regulations, with suitable arrangements for works. Work only proceeds when Building Control Approval is given.

BUILDING SAFETY ACT

Gateway 2 Compliance

GATEWAY 2 IS THE DECISION POINT FOR BUILDING CONTROL APPROVAL by the BSR.

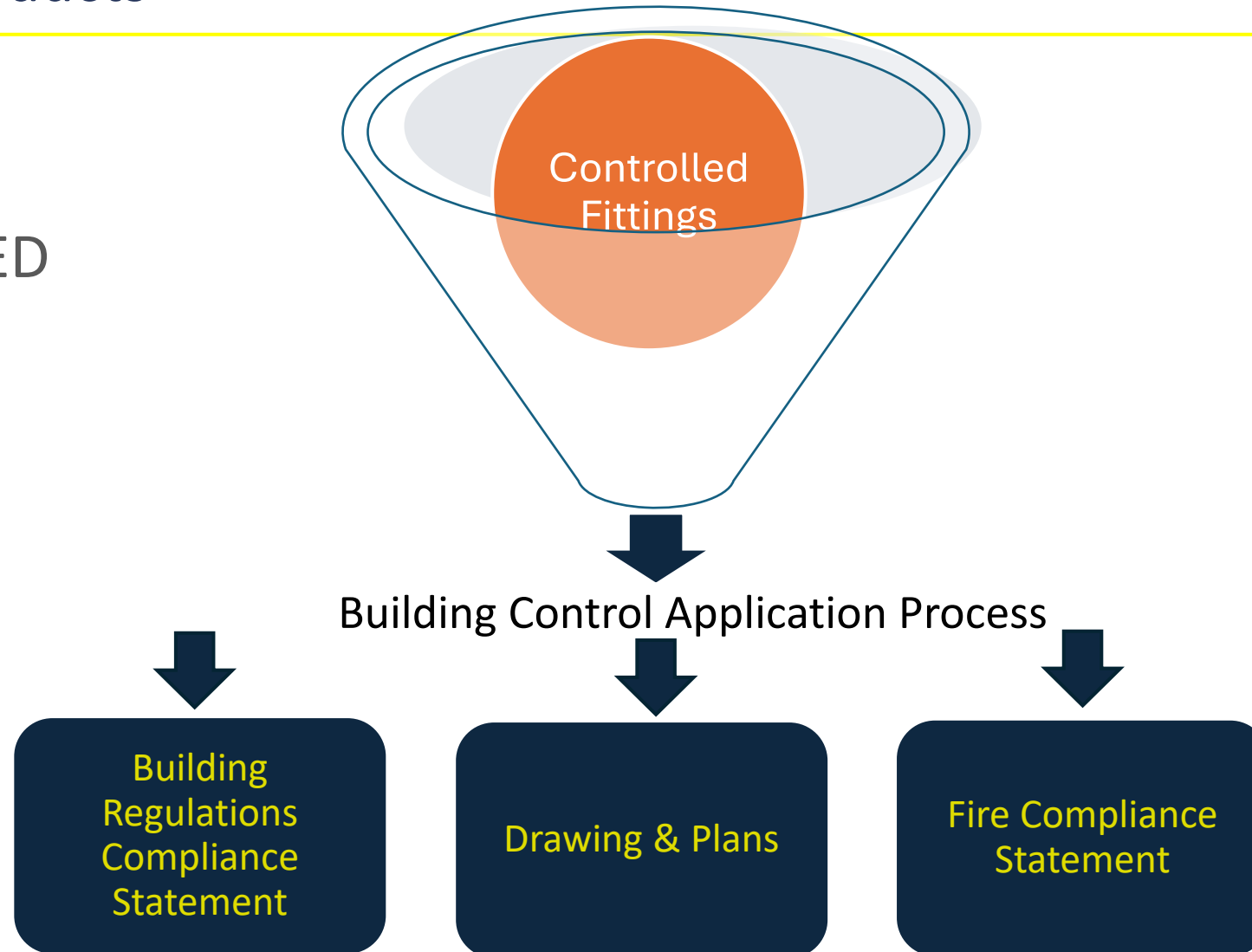
CONSTRUCTION PRODUCT CHOICE IS KEY.



BUILDING SAFETY ACT - GATEWAY 2 COMPLIANCE

Construction Products

FIRE DOORSETS
ARE CONTROLLED
FITTINGS
(Approved
Document 7)



CONSTRUCTION PRODUCTS / CONTROLLED FITTINGS

Fire Doorsets

NOT JUST A 'FIRE
DOOR'

PERFORMANCE
BASED ON
FUNCTION AND
LOCATION



THE FIRE DOORSET FUNCTION & LOCATION

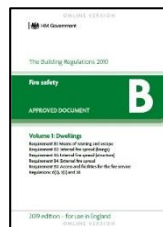
Example – Flat Entrance Doorset



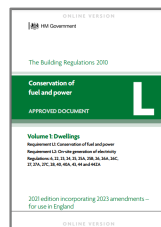
Restricting fire entering or escaping



Preventing smoke leakage



Keeping the dwelling conditioned



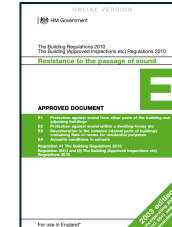
Protecting the dwelling from intruder attack



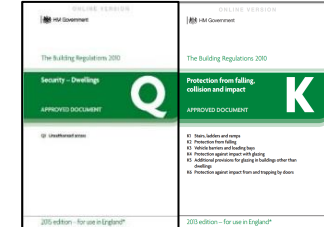
Ensuring ease of access



Assisting noise reduction



Operation & safety

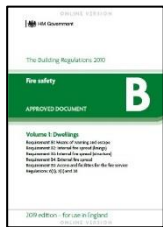


THE FIRE DOORSET FUNCTION & LOCATION

Example – External Flat Entrance Doorset



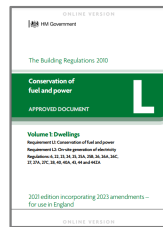
Restricting fire entering or escaping



Preventing smoke leakage



Keeping the dwelling conditioned



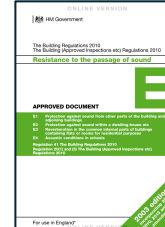
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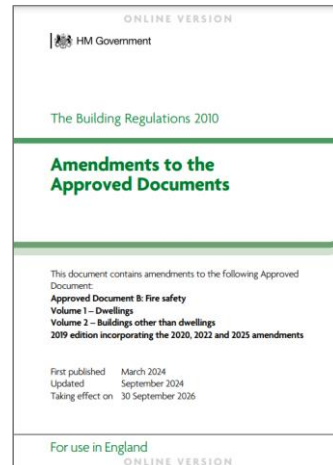
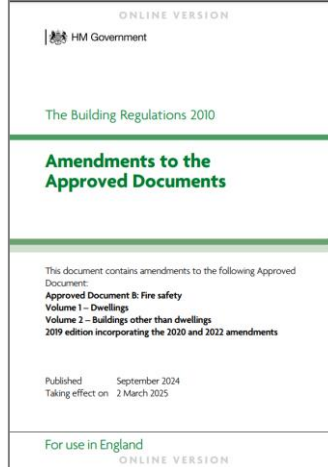
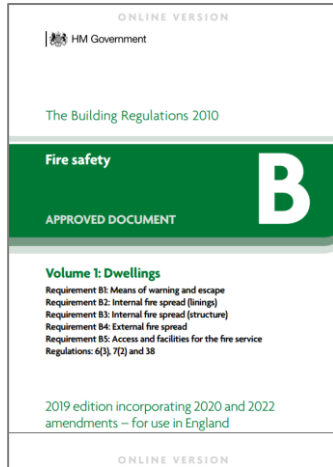


Weather resistance

Construction Products Regulation
Wind resistance
watertightness & air permeability

BUILDING REGULATION COMPLIANCE

Fire Safety

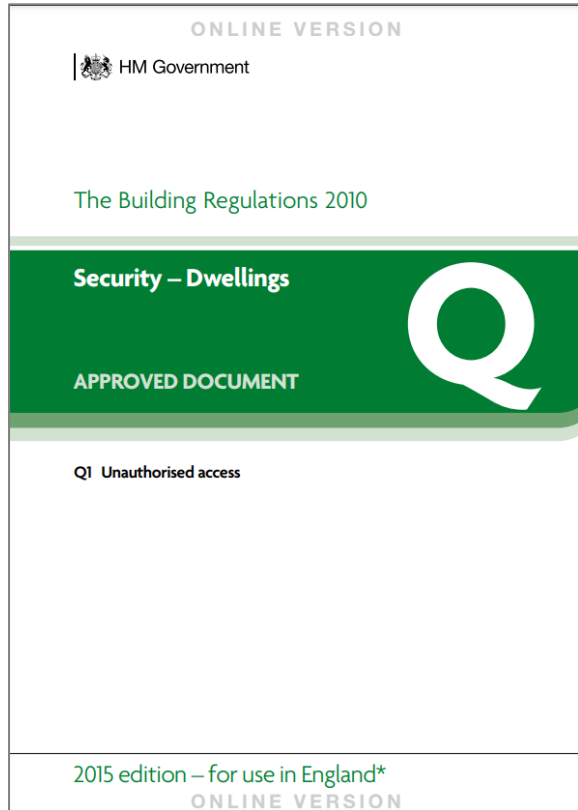


Fire Doorsets

- Classified in accordance with EN 1634-1 fire resistance / EN 1634-3 smoke leakage according to BS EN 13501-2
- Regulation 38 introduction
- Means of Escape
- Phasing out of national classes (BS 476)
- Supplied from a Single Source for External Pedestrian Doorsets with Fire Resistance

BUILDING REGULATION COMPLIANCE

Security

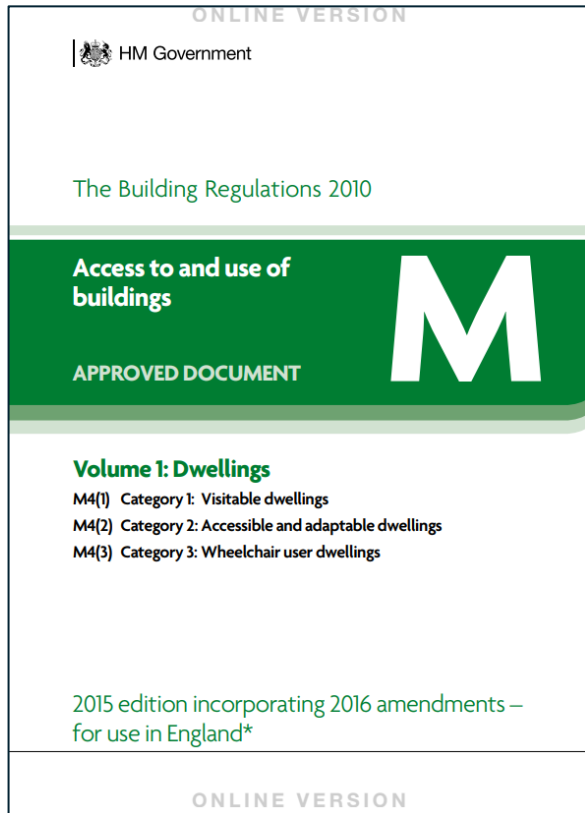


Fire Doorsets

- Recognised Industry Test Standard: PAS24:2012
- Specifically for entrance doorsets, this regulation relates to the security of the dwelling
- Part Q stipulates requirements for letterplates (achievable through TS008 letterplates) And TS002 requirements for door viewers (unless there is clear glazing in the doorset) And door limiter/chain requirements (achievable through TS003)

BUILDING REGULATION COMPLIANCE

Access to and use of buildings



Fire Doorsets

- Doorsets tailored to size (mm) based on survey of opening
- Survey App to enable detail to be captured & processed within test evidence remit
- Wide range of primary tested door closer options to suit resident needs
- Range of primary tested solutions for low thresholds
- Options to colour contrast doors and frames
- Primary tested options for two door viewers
- Flat Entrance Doorsets with assisted opening

BUILDING REGULATION COMPLIANCE

Resistance to the passage of sound

ONLINE VERSION

HM Government

The Building Regulations 2010
The Building (Approved Inspections etc) Regulations 2010

Resistance to the passage of sound

E

APPROVED DOCUMENT

E1 Protection against sound from other parts of the building and adjoining buildings
E2 Protection against sound within a dwelling-house etc
E3 Reverberation in the common internal parts of buildings containing flats or rooms for residential purposes
E4 Acoustic conditions in schools

Regulation 41 The Building Regulations 2010
Regulation 20(1) and (5) The Building (Approved Inspections etc) Regulations 2010

2003 edition
incorporating 2004,
2010, 2013 and 2015
amendments

For use in England*

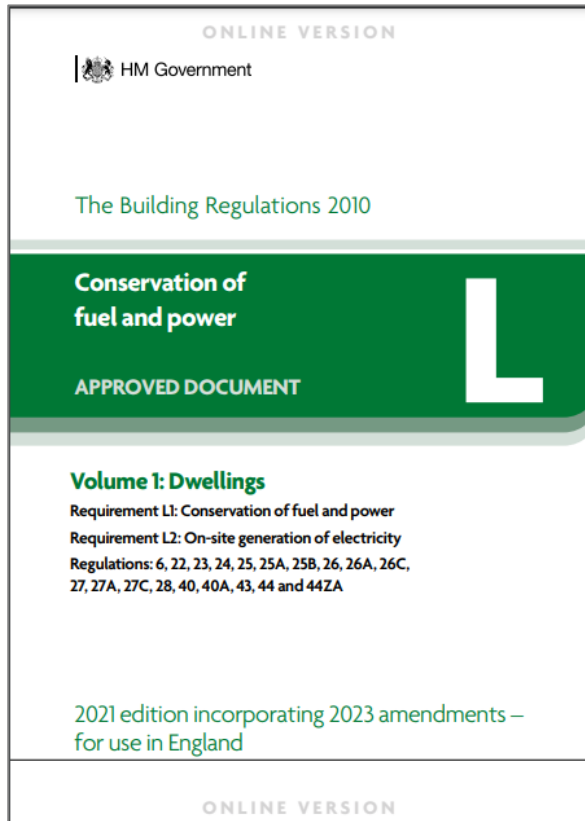
ONLINE VERSION

Fire Doorsets

- Recognised Industry Test Standard for fire doorsets
EN ISO 10140-2 Laboratory Measurement Method for the transmission of airborne sound
- 4.20 Ensure that any door has good perimeter sealing (including the threshold where practical) and a minimum mass per unit area of 25kg/m^2
- or a minimum sound reduction index of 29dB Rw (measured according to BS EN ISO 140-3:1995 and rated according to BS EN ISO 717-1:1997)

BUILDING REGULATION COMPLIANCE

Conservation of Fuel and Power

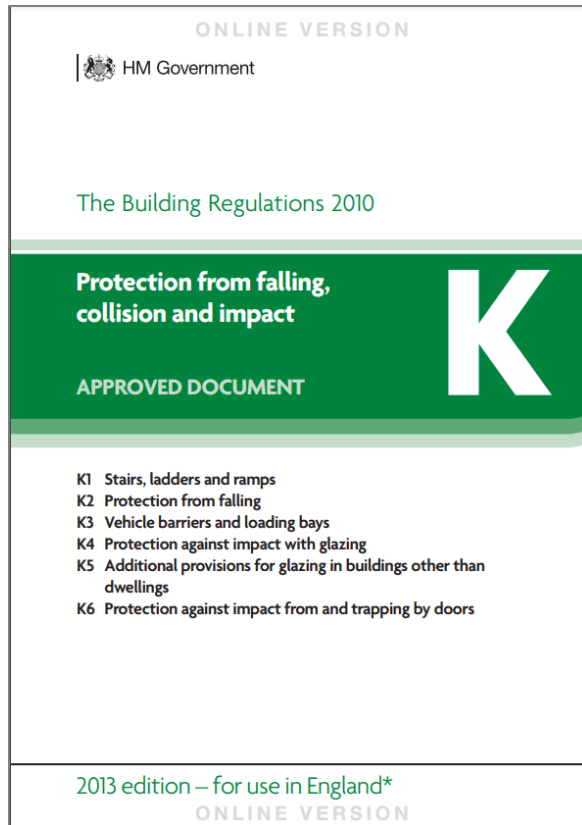


Fire Doorsets

- Recognised Industry Test Standard for fire doorsets is EN ISO 10077-1 Thermal Performance of doors Calculation of thermal transmittance
- EN ISO 10077 test is for the door and frame including the threshold
- BFRC Simulator at a UKAS accredited testing laboratory
- 2023 amendment reduced U value for fire doorsets to 1.8 W/m²K (to the external envelope)

BUILDING REGULATION COMPLIANCE

Protection from falling, collision and impact



Fire Doorsets

- This regulation relates to the impact resistance of glass. The industry standard for this in a door or screen is EN 12600 or BS6206.
- However this approved document lists no specific criteria for doorsets. Durability & impact criteria is catered for through industry standard testing: BS6375-2/3 or tests listed in the designated standard EN 14351-1:2006+A1:2016 / EN 16034:2014.

These cover a range of criteria such as:

- Durability of resistance to repeated opening and closing
- Soft & heavy body impact
- Hard body impact
- Etc

CONSTRUCTION PRODUCTS / CONTROLLED FITTINGS

Fire Doorsets

At Gateway 2 the building control application may include various aspects:

- Material change of use
- Means of escape
- All ages of HRBs including listed buildings
- Complex layouts
- Offer 30 and/ or 60 minutes to meet compartmentation as needed
- Offer fire integrity and fire insulation (protection against heat transfer) as needed

FIRE DOORSETS :

- **CONSIDER THEIR FUNCTION & LOCATION**
- **CHECK THE PERFORMANCE CRITERIA**



BUILDING SAFETY ACT / BUILDING REGULATIONS COMPLIANCE

Fire Doorsets –What To Look For

| FIRE DOOR TYPE | DESIGNATED STANDARD | DECLARATION OF PERFORMANCE |
|--|---------------------|----------------------------|
| Internal Flat Entrance Doorset | NO | NO |
| External Flat Entrance Doorset | YES | YES |
| Escape Route Doorsets (not always fire rated) | YES | YES |
| Communal Area Doorset | NO | NO |
| Service Room Doorset Internal | NO | NO |
| Service Room Doorset External (where fire resistance required) | YES | YES |

BUILDING REGULATIONS COMPLIANCE

Fire Doorsets – What To Look For

EXTERNAL DOORSETS DECLARATION OF PERFORMANCE (Dop)

The only designated fire doorsets standard is for **external** pedestrian doorsets with fire resistance: BS EN 14351-1:2006+A2:2016 / BS EN 16034:2014

Security performance is managed through third-party certification:
Dual Certification for Fire Resistance & Enhanced Security with Smoke Control – needed for Secured by Design



| Declaration of Performance Regulation [EU] 305/2011 | | UK CA |
|--|---|----------------------------|
| Manufacturer | Gerda Security Products Ltd, 54 Chiswick Avenue, Mildenhall, Suffolk, IP28 7AY. enquiries@gerdasecurity.co.uk Original issue date: 06.05.2020 | |
| Product Type | Safer Homes Range EI30 Sa doorset | |
| Manufacturers Reference No. | SHR EI30 Sa | |
| Intended Use | Communication in domestic and commercial locations, fire compartmentation and / or escape routes | |
| AVCP System | AVCP 1 Approved Body, Bluesky Certification, Approved Body number 2731, determined product type: sampling, initial inspection of the manufacturing plants, inspection of factory process control and continuous surveillance, assessment & evaluation of factory production control and issuing of the Certificate of Constancy of Performance of the product. AVCP 3 The following Approved Test Laboratories performed the determination of the product type on the basis of type testing (based on sampling carried out by the manufacturer), type calculation; tabulated values of the product under System 3 and issued test reports / calculation reports: UKAS Approved Test Laboratory: Warrington Testing & Certification 0621, for industry standards EN1026; EN1027; EN12211 and UKAS Approved Test Laboratory Chiltern Testing & Certification 1762 for EN ISO 10140-2; & UKAS Approved Laboratory BuildCheck 1806 for EN ISO 10077. | |
| Essential Characteristics | Declared Performance | Designated Standard |
| Thermal Transmittance | 1.5W/(m ² .K) - BS-EN ISO 10077-1:2006 | BS EN 14351-1:2006+A2:2016 |
| Air permeability | Class 3 - BS EN 1026 | |
| Watertightness | Class 2A - BS EN 1027 | |
| Resistance to wind load | Class C3 - BS EN 12211 | |
| Dangerous substances | None | |
| Acoustics | 30 dB | BS EN 16034:2014 |
| Impact resistance of glass and fragmental material | NPD | |
| Load bearing capacity of safety devices | NPD | |
| Radiation Properties | NPD | |
| Resistance to fire (for fire compartmentation uses): E: | 30 E ₁ : 30 | |
| Smoke control | Sa | |
| Ability to release | NPD | |
| Self-closing | C | |
| Durability of ability to release | NPD | |
| Durability of self-closing: | NPD | |
| * Against degradation (cycle testing): | Achieved | |
| * Against ageing (corrosion): | | |
| This declaration of performance is issued, in accordance with Regulation [EU] No. 305/2011, under the sole responsibility of the manufacturer, identified above. | | |
| Signed for and on behalf of the manufacturer by: | | |
| Name and title: | Piotr Zarnoch (Technical Manager) | At: Mildenhall, Suffolk |
| Signature: | <i>P Zarnoch</i> | Date of issue: 05.07.2023 |

BUILDING REGULATIONS COMPLIANCE

Fire Doorsets –What To Look For

INTERNAL FIRE DOORSETS

| Performance | Test Standard | Regulation |
|---|--|---|
| Fire Resistance Testing | BS EN 1634-1 tests Field of Application Report / EXAPs | Approved Document B |
| Smoke Leakage Testing | BS EN 1634-1 tests Field of Application Report / EXAPs | Approved Document B |
| Security Testing | PAS 24 or equivalent tests, Security Scope & Dual Certification through Certification Body | Approved Document Q |
| Acoustics Testing | BS EN ISO 14010-2 through UKAS test house | Approved Document E |
| Thermal Transmittance (calculative or hotbox) | EN ISO 10077 through UKAS test house | Approved Document L |
| Operation & Durability | BS EN 12046-2; BS EN 947; BS EN 948; BS EN 949; BS EN 950; BS EN 1191; BS 6375-3 | BS EN 14351-1 (Construction Products Regulation) BS 6375-2/3 |
| Access & Use of Building | Tailored sizes / options for restricted widths | Approved Document M |
| Protection from Falling, Collision & Impact | BS EN 12600 / BS 6206 | Approved Document K |
| Third Party Certification | Through independent UKAS accredited certification bodies | |



BUILDING REGULATIONS COMPLIANCE

Fire Doorsets – Making An Informed Choice

Manufacturer vs System House Test Evidence

Manufacturer-Owned Primary Test Evidence

Full design ownership & full control of test evidence

At Point of Design all performance criteria is included for a range

Each doorset range is extensively tested on the same doorset design composition & construction

From a Single Source

Flexibility to add to test evidence & meet the needs of the Client

Replacement parts in kit form – with the intumescent & fixings as tested

Traceability back to the one source

System House Test Evidence

System House own primary test evidence which is then 'cascaded' to a door producer under certification

At Point of Design not all performance criteria may be included for a range

For some cascaded test evidence under certification, the hardware & glazing options may not be tested on the same doorset design composition & construction

Product may be from a single source or several sources

The Door Producer is reliant on the System House for any changes they may need

Replacement parts sourced from component manufacturers but not necessarily as kits with intumescent & fixings

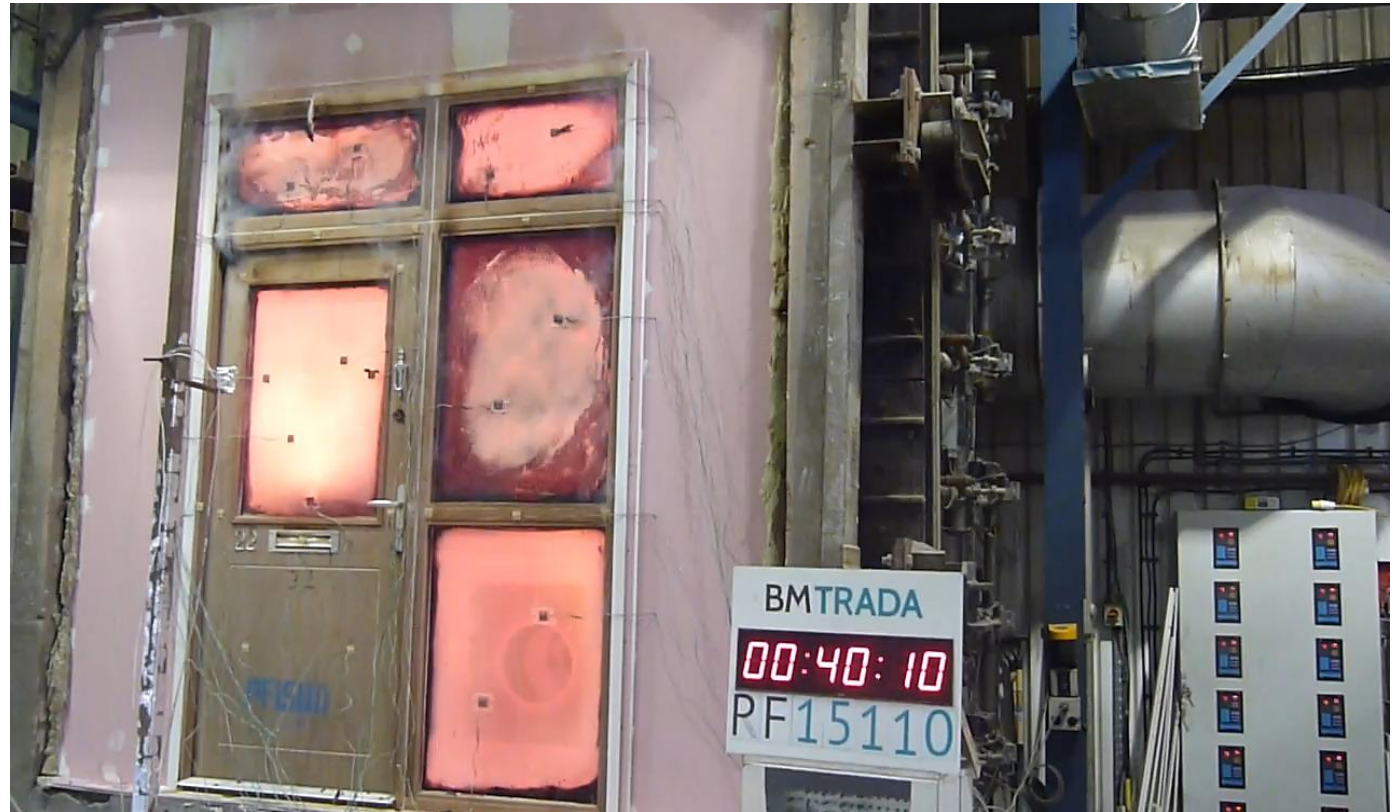
BUILDING REGULATIONS COMPLIANCE

Fire Doorsets – Making An Informed Choice

FUTURE PROOFING

TESTING TO BOTH SIDES OF THE
DOORSET & CONFIGURATION

TESTING TO EN1634-1 AT A UKAS TEST HOUSE
& CLASSIFIED IN ACCORDANCE WITH BS EN
13501-2



BS EN 1634 -1 30 minutes fire resistance test

BUILDING REGULATIONS COMPLIANCE

Fire Doorsets – Making An Informed Choice

ASSISTING WITH REGULATION 38



Safer Homes Range E330 Sa
External Fire Entrance Doorsets
Doorsets in Primary Fire Tests in Extended Field of Application report
RS-23/T-130/E

| Fire Test Image | Test Reference / Date of Test / Sponsor / Observer | Time to and test |
|-----------------|--|---|
| | RS-23/T-130/E 19/04/2023 GERDA SECURITY PRODUCTS LTD GERDA SALES (UK) LTD | Compass 1 Fire integrity 15 mins Insulation 15 mins |
| | RS-23/T-130/E 19/04/2023 GERDA SECURITY PRODUCTS LTD GERDA SALES (UK) LTD | Compass 1 Fire integrity 15 mins Insulation 15 mins |
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Safer Homes Range E330 Sa
External Fire Entrance Doorsets
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Safer Homes Range E330 Sa
External Fire Entrance Doorsets
Doorsets in Primary Fire Tests in Extended Field of Application report
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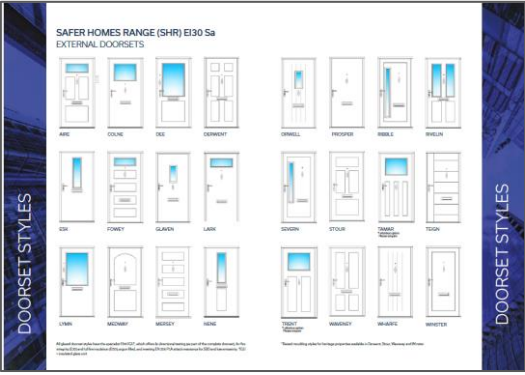
Safer Homes Range E330 Sa
External Fire Entrance Doorsets
Doorsets in Primary Fire Tests in Extended Field of Application report
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| | RS-23/T-130/E 19/04/2023 GERDA SECURITY PRODUCTS LTD GERDA SALES (UK) LTD | Compass 1 Fire integrity 15 mins Insulation 15 mins |

Safer Homes Range SHR E330 Sa
External Fire Entrance Doorsets
Doorsets in Primary Smoke Tests in Extended Field of Application report
RS-23/T-130/E

| Test Reference / Date of Test / Sponsor / Observer | Test Results |
|--|--------------|
| RS-23/T-130/E 19/04/2023 GERDA SECURITY PRODUCTS LTD GERDA SALES (UK) LTD | |
| RS-23/T-130/E 19/04/2023 GERDA SECURITY PRODUCTS LTD GERDA SALES (UK) LTD | |
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Overview of test data – for all aspects of performance criteria



Doorset styles in range



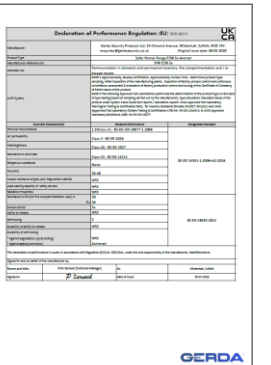
Installation Instructions



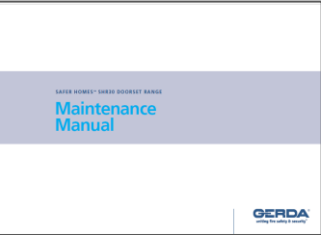
Doorset Certificate Of Conformity



Dual Certification Certificate



Declaration of Performance UKCA



Maintenance Instructions – URL to website

BUILDING REGULATIONS COMPLIANCE

Fire Doorsets – Making An Informed Choice

DEPTH OF PERFORMANCE CRITERIA

PROVIDE ASSURANCE OF CONSISTENT
PERFORMANCE THROUGH PRIMARY TESTS
BASED ON THE SAME DESIGN AND
CONSTRUCTION FOR A GIVEN DOORSET
RANGE



GERDA[®]
uniting fire safety & security™

BUILDING REGULATIONS COMPLIANCE

Fire Doorsets – Making An Informed Choice

DEPTH OF PERFORMANCE CRITERIA

ENABLES
COMPATIBILITY FOR
HERITAGE BUILDINGS IN
THE HOUSING STOCK



Before

After



ORIGINAL VENTS

As vents above the door frames had been filled in over time, we had to carefully remove them and fireproof behind, then shot blast, repaint and reinstate, or replicate if missing, to preserve the original design.

APPROVED FIXINGS

Through working with the RBKC and TA, a specific design of required external closer, along with compliant ironmongery colour matched to the original fixings, was given listed building consent.

DOOR NUMERALS

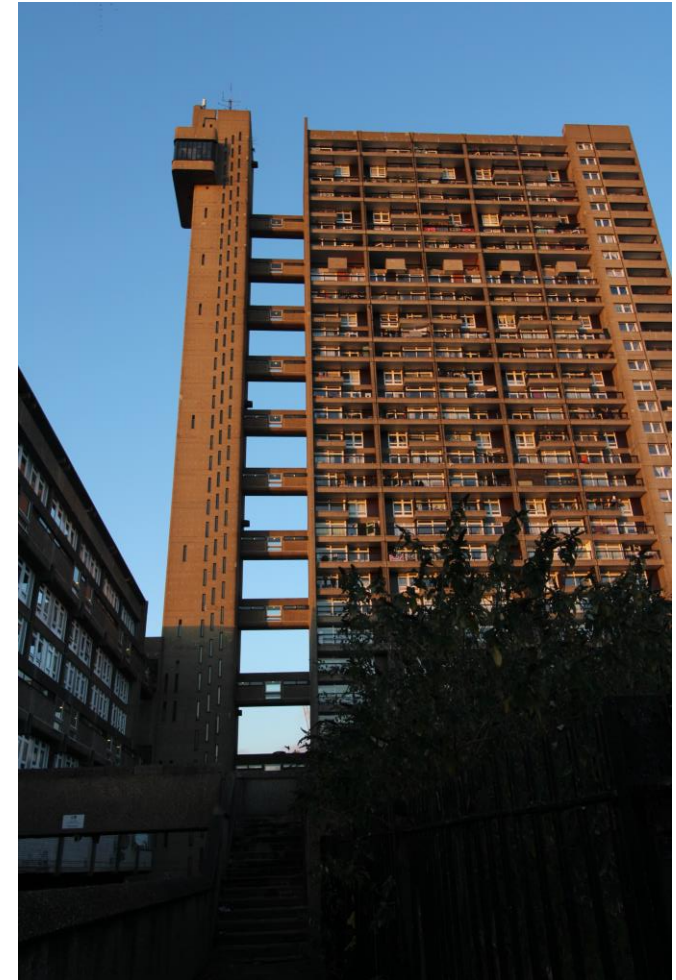
The existing door numerals were individually recreated using 3D printing to ensure an as close to original feature preservation, with a specialist jig ensuring exact placement on the letterboxes as per original doors.

COLOUR MATCHING

With the help of an architect who worked alongside Goldfinger, we determined and colour matched our doors to the original pebble grey.

ORIGINAL TILES

Original tiles around the doors that were irreplaceable meant extreme care had to be taken by the installers not to damage them.



Heritage Project – Trellick Tower

BUILDING REGULATIONS COMPLIANCE

Fire Doorsets – Making An Informed Choice

BREADTH OF PERFORMANCE CRITERIA

WIDE RANGE OF TESTED CONFIGURATIONS ASSISTS IN REDUCING FIRE STOPPING & COST REDUCTION



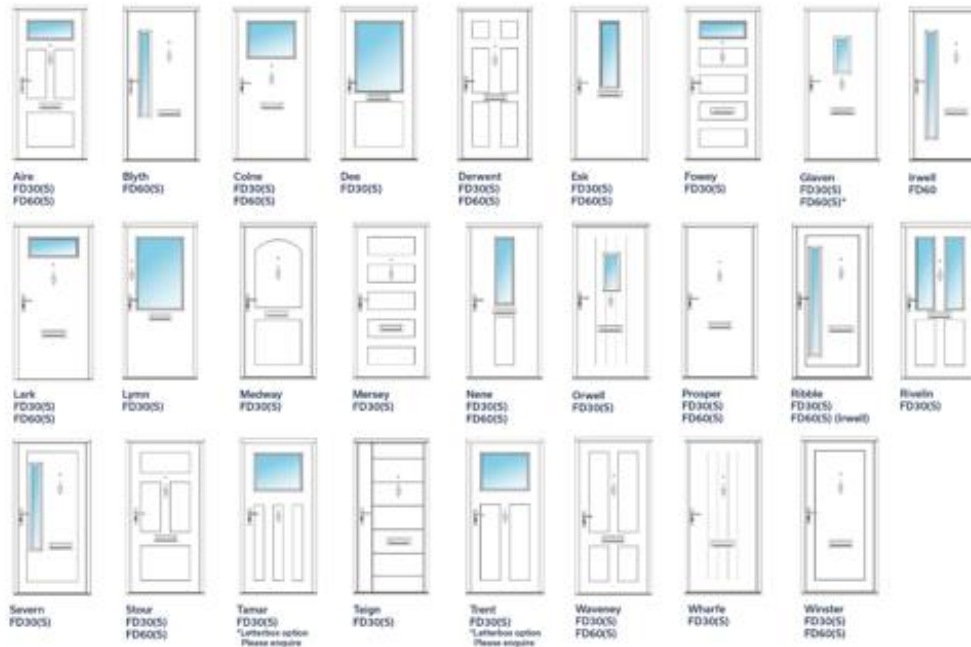
BUILDING REGULATIONS COMPLIANCE

Fire Doorsets – Making An Informed Choice

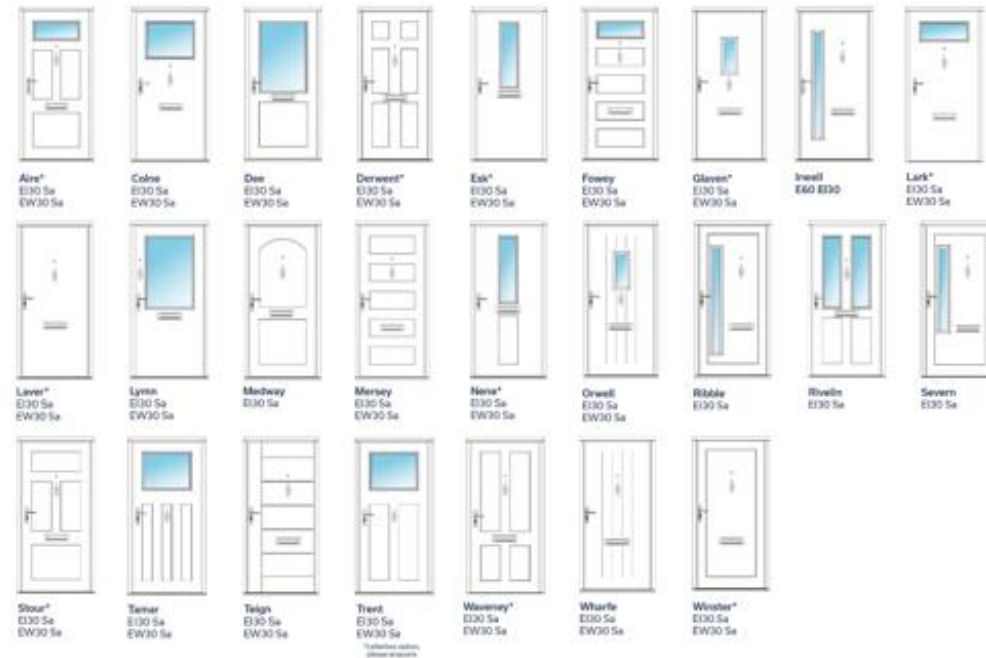
BREADTH OF PERFORMANCE CRITERIA

WIDE RANGE OF TESTED STYLES MEANS CHOICE NOT LIMITED

Internal Flat Entrance: FD30(S) & FD60(S)



External Flat Entrance: EW30 Sa, EI30 Sa & E60 EI30 Sa



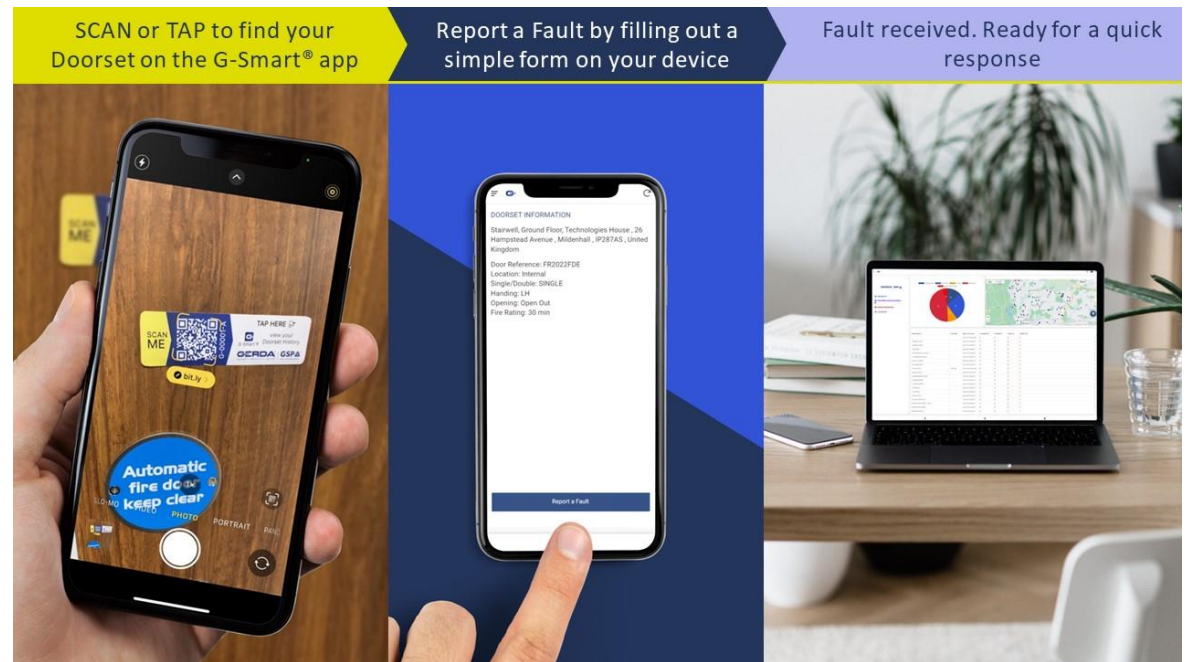
BUILDING REGULATIONS COMPLIANCE

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THE GOLDEN THREAD



Fire Doorset with unique code traceable at point of survey; through manufacture; installation & maintenance



Enabling residents to report a fault

FIRE DOORSETS IN HRBS – LEGISLATION, GATEWAY 2 COMPLIANCE

Key Takeaways



- Evolving awareness of importance of fire doorsets through several pieces of recent legislation
- Gateway 2 under the Building Safety Act further reinforces the need for building regulation compliance linked to building works through the building control application process
- Fire Doorsets are a multiperformance product – to be considered in terms of function and location
- There are ways to optimise Fire Doorset specification through looking not only at the performance, but at the depth, breadth and consistency of testing
- The above is important when it comes to building control application and the progress throughout the construction project at Gateway 2
- Ensure that the fire doorset you specify for the HRB has the provenance to provide details to support you at Gateway 2 and beyond.

