



# 

## **TECHNICAL DATA SHEETS**





www.guardtech.com

**Q** 0330 113 0303

sales@guardtech.com

Unit C The Brocks Business Park, Homefield Road, Haverhill, Suffolk, CB9 8QP







Introduction





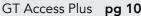
2

Guardtech





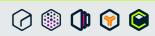












3

# GT ACCESS CLEANROOM DOORS

Guardtech offer a range of cleanroom grade door solutions to best suit the needs of your application. Whether it's budget, lead time or performance that matters most, Guardtech provide a comprehensive choice of single and double doors to ensure your process requirements are achieved.

From robust, high-performance fully flush solutions to more economical service door options, the Guardtech Group's Directors, Design Engineers and Installation team have worked together to carefully select four industry-leading door options for your consideration.

Read on to discover the benefits and compromises of the different choices we have, then use this guide to make the most informed choice possible.

Let Guardtech take your operation to the next level.



### ACCESS MAX

Fully Flush powder-coated steel cleanroom grade door leaf and frame solution – combining stunning aesthetics with elite performance to deliver the best results for the most demanding critical environments.



### ACCESS PRO

A high-performance a Glass Reinforced Polyester (GRP) cleanroom door, featuring a pressure-moulded, encapsulated sandwich-structure that is completely waterproof and boasts superb resistance to chemicals.



### ACCESS PLUS

GT Access Plus is a semi-flush powder-coated steel cleanroom grade door solution – featuring an ECOsafe PIR or MF (mineral fibre) Core, available in single, double or sliding door configurations.



#### ACCESS LITE

GT Access Lite is Guardtech's entry-level rapid door option – a powder-coated steel door with a standard anodised aluminium frame, featuring PIR insulation core and a clear opening width of 650 - 3140mm.



### ACCESS FIRE

GT Access Fire is Guardtech's fire-rated cleanroom door solution – a Certifire compliant high-performance steel construction with a reinforced non-combustible core available in various configurations.





4





🕜 🌒 🗘 🜍 🎯

5



# GT ACCESS MAX



Fully Flush powder-coated steel cleanroom grade door leaf and frame solution - combining stunning aesthetics with elite performance to deliver the best results for the most demanding critical environments.

GT Access Max is a fully Flush powder-coated steel cleanroom grade door leaf and frame solution - combining stunning aesthetics with elite performance for the most demanding critical environments.

Featuring an ECOsafe PIR / MF Core, the doorleaf has a thickness of 80 mm (Tol. ± 1,0 mm).

Door openings: Height: 2133mm (clear internal height) for frame height of 2200mm. Width: 1067mm (clear internal width) for a frame width of 1200mm. Other sizes available on request.

Door hardware: Stainless steel hinges; stainless steel door handle; stainless steel pull handle; door lock with keys; and recessed drop-seal.

### **TECHNICAL FEATURES**

Coatings: Various chemically inert, anti-bacterial coatings available. Colour Range: RAL9010 and RAL9002. Door Leaf: Thick hot-dip zinc coated metal. Frame: 6mm thick extruded 6063 aluminium alloy. Gaskets: Continuous uPVC gasket fitted to internal rebate of frame. Hinges: Four recessed stainless steel lift-off hinges. Vision Panels: Each vision panel (if required) is constructed from two 6mm laminated safety glass. Standard size: 300 x 600mm.

### Available options:

Guardtech

arouc

- Double-glazed Flush vision panel 300mm wide x 600mm high 6mm laminated glass), other sizes available on request • Built in electromagnetic lock (24V)
- Electrical lock (24V) Sash lock / latch / night latch / deadlock / escape sashlock / roller bolt • Flush or semiflush stainless steel kick-plates • PVC semi-flush kick-plates
- Stainless steel push-plate and pull handle Emergency door with panic bar • Door stop • Interlocking system
- Door closer Recessed drop seal

### SINGLE DOOR

### **Technical Performance:**

- Air permeability according to EN 12426: Class 3
- Leakage at +50Pa positive pressure 3.2m<sup>3</sup>/h/m<sup>2</sup>
- Leakage at -50Pa negative pressure 4.1m<sup>3</sup>/h/m<sup>2</sup>
- Resistance to water penetration according to EN12425: Class 0
- Resistance to windload according to EN 12424: Class 4

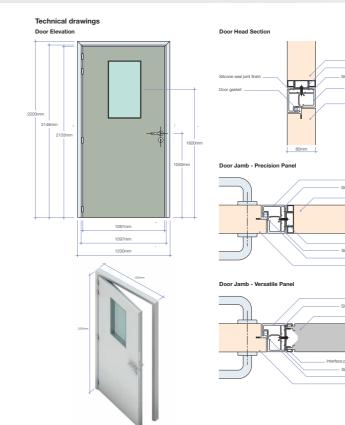
### **DOUBLE DOOR**

### **Technical Performance:**

- Air permeability according to EN 12426: Class 1
- Leakage at +50Pa positive pressure 13m<sup>3</sup>/h/m<sup>2</sup> (4.8m<sup>3</sup>/ h/m)
- Leakage at -50Pa negative pressure 21m<sup>3</sup>/h/m<sup>2</sup> (7.3m<sup>3</sup>/ h/m
- Resistance to water penetration according to EN12425: Class 0
- Resistance to windload according to EN 12424: Class 4

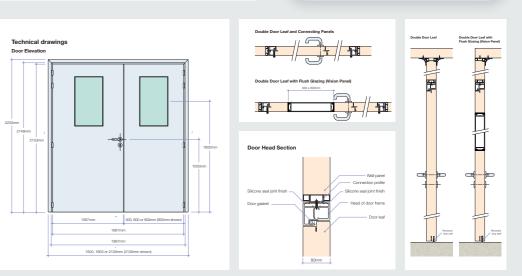
## **TECHNICAL DRAWINGS**

### SINGLE DOOR



### **DOUBLE DOOR**









Pharmaceuticals Semiconductor

GT Access Max suits the most demanding of applications, typically where particulate needs to be controlled to extremely tight tolerances. This often includes cleanrooms with an ISO5 or 6 classification, as well as those required to comply with cGMP conditions outlined in EU GMP Annex 1, ISO 14644-1 and US FS209E.

6

## BENEFITS & COMPROMISES

7

### **Benefits**

• Fully flush system ideal for cGMP compliance • Various chemically inert, anti-bacterial coatings available

• Elite level performance across a wide range of critical parameters

- ECOsafe PIR/MF Core
- Long-life expectancy

### Compromises

- Higher price point
- Potentially longer lead times
- Limited choice of colour options

### **APPLICATIONS**







# **GT ACCESS PRO**



A high-performance a Glass Reinforced Polyester (GRP) cleanroom door, featuring a pressure-moulded, encapsulated sandwich-structure that is completely waterproof and boasts superb resistance to chemicals.

GT Access Pro is high-performance a Glass Reinforced Polyester (GRP) cleanroom door, featuring a pressure-moulded, encapsulated sandwich-structure that is completely waterproof.

These doors will not rot, rust, swell or warp and will stay unaffected by continuous water and moisture even after decades of use. These doors are not manufactured using timber or any other organic materials, meaning that these do not promote any bacterial growth.

They have excellent resistance to chemicals and have the best rating for surface material emissions. These doors are completely made to order, size, colour, ironmongery and other accessories can be completely tailored to your needs.

### **TECHNICAL FEATURES**

Completely Waterproof 
Chemical Resistant

• Corrosion Free – Glass Reinforced Polyester has Excellent Corrosion Resistance • Long-Life Expectancy

• Lightweight and Easy to Use • Meets all European, British and Other Fire Safety Regulations • Easy Installation with a Choice of Frame Systems • All Doors Have a Co-ordinated Look for Room Consistency • Best Surface Material Emission Class M1

• First CE Marked Hygienic Doors in Europe

Guardtech

orouo

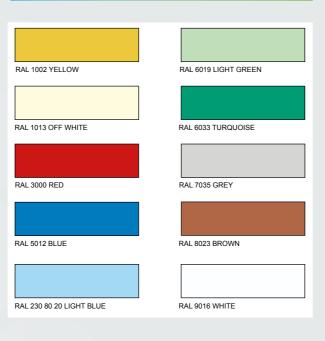
• Door Leaf has No Joints or Lippings for Added Hygiene

Door Leaf: 40mm Thick Pressure Moulded GRP Door Leaf Cover: 2.5mm Reinforced Plastic Laminate Door Surface: 0.5mm Moulded Gelcoat Surface Door Frame: Completely Adjustable Size - Powder-Coated Aluminium / Anodised Aluminium / GRP Frame / Grade 304 Stainless Steel / Grade 316 Acid Proof Stainless Steel Door Hinges: Corrosion and Acid Proof Steel Lift-Off Hinges 120x34

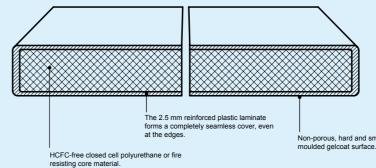




### **DOOR & FRAME COLOURS**



# **TECHNICAL DRAWINGS**



Cross section of a pressure-moulded Glass Reinforced Polyester (GRP) door.

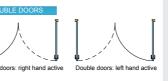
NON-POROUS GELCOAT



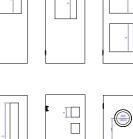


HANDING REFERENCES

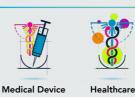












GT Access Pro cleanroom doors suit a wide variety of applications in a diverse range of sectors. Whilst they may not boast the fully flush appeal of GT Access Max, performance-wise these doors are every bit as durable and effective.

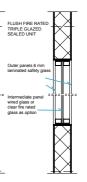
Cell & Gene

Oil & Gas

8



Non-porous, hard and smooth 0.5 mm



### STANDARD VISION PANEL OPTIONS

## BENEFITS & COMPROMISES

9

### **Benefits**

- Pressure-moulded sandwich-structure that is completely waterproof
- Excellent resistance to chemicals
- Non-porous gelcoat exterior
- Fire-rated vision panels • Wide selection of door
- frame colours • Long-life expectancy

### Compromises

- Not available as a fully flush solution
- Higher price point than GT Plus or GT Lite options

### FRAME OPTIONS





Laser & Optical

Battery



# GT ACCESS PLUS



GT Access Plus is a semi-flush powder-coated steel cleanroom grade door solution - featuring an ECOsafe PIR or MF (mineral fibre) Core, available in single, double or sliding door configurations.

GT Access Plus is a semi-flush powder-coated steel cleanroom grade door soltuion - featuring an ECOsafe PIR or MF Core, the door has a thickness of 40mm (Tol. ± 1,0 mm).

### Door openings:

Height: 2133mm (clear internal height) for frame height of 2200mm

Width: 1067mm (clear internal width) for a frame width of 1200mm

Other sizes available on request.

Door hardware: Stainless steel hinges; stainless steel door handle; stainless steel pull handle; door lock with keys; and recessed drop-seal.

### **TECHNICAL FEATURES**

Coatings: Various chemically inert, anti-bacterial coatings available. Colour Range: RAL9010 and RAL9002. Door Leaf: Thick hot-dip zinc coated metal. Frame: 5mm thick extruded 6063 aluminium alloy. Gaskets: Continuous uPVC gasket fitted to internal rebate of frame. Hinges: Four recessed stainless steel lift-off hinges. Vision Panels: Each vision panel (if required) is constructed from two 6mm laminated safety glass. Standard size: 300 x 600mm.

### Available options:

Guardtech

arouc

- Double-glazed Flush vision panel 300mm wide x 600mm high 6mm laminated glass), other sizes available on request • Built in electromagnetic lock (24V)
- Electrical lock (24V) Sash lock / latch / night latch / deadlock / escape sashlock / roller bolt • Flush or semiflush stainless steel kick-plates • PVC semi-flush kick-plates • Stainless steel push-plate and pull handle • Emergency
- door with panic bar Door stop Interlocking system
- Door closer Recessed drop seal

### SINGLE DOOR

### **Technical Performance:**

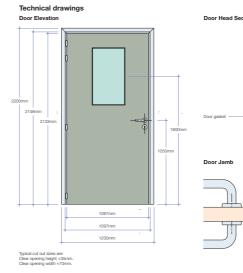
- Air permeability according to EN 12426: Class 1
- Leakage at +50Pa positive pressure 9.5m<sup>3</sup>/h/m<sup>2</sup>
- Leakage at -50Pa negative pressure 19m<sup>3</sup>/h/m<sup>2</sup>
- Resistance to water penetration according to EN12425: Class 0
- Resistance to windload according to EN 12424: Class 4

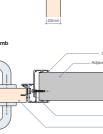
### **DOUBLE DOOR**

#### **Technical Performance:**

- Air permeability according to EN 12426: Class 1
- Leakage at +50Pa positive pressure 9.5m<sup>3</sup>/h/m<sup>2</sup>
- Leakage at -50Pa negative pressure 19m<sup>3</sup>/h/m<sup>2</sup>
- Resistance to water penetration according to EN12425: Class 0
- Resistance to windload according to EN 12424: Class 4

# **TECHNICAL DRAWINGS**









### **SLIDING DOOR**

Type: Airtight sliding door Core: PIR/ MF Thickness: 60 mm/ 2.36in (Tol, ± 1,0 mm/ 0.04in) door leaf Door Openings: Width: 900, 1200, 1500 or 1800mm / 35.4, 47.2, 59.0in (clear internal width) for a an overall width of 1000, 1300, 1600 or 1900mm / 39.3, 51.2, 62.9, 74.8in Other sizes available. Door Hardware: Stainless steel door handle. Coatings: Polyester and anti-bacterial. Door Leaf: 0.63mm thick hot-dip zinc coated metal. Frame: Constructed from 3mm thick extruded 6063 aluminium alloy. Gaskets: Smooth, continuous EPDM rubber gasket. Rail System: Features aluminium cover for cleanrooms. Vision Panels: Two 6mm / 0.24in laminated safety glass. Standard size is 400 x 700mm.





Cosmetics

GT Access Plus is a versatile cleanroom door solution suitable for a significant number of different industries using controlled environments as part of their process. However, because this solution is semi-flush, GT Access Plus is not appropriate for applications where ledges can compromise standards.

10











## BENEFITS & COMPROMISES

### **Benefits**

- Various chemically inert, anti-bacterial coatings available
- ECOsafe PIR or MF (mineral fibre) core • Variety of options available to upgrade the door's functionality
- More competitive price point than GT Max or GT Pro options

### Compromises

- Not available as a fully flush solution
- Not as suitable for the more stringent controlled environments



### **APPLICATIONS**













Manufacturing







# **GT ACCESS LITE**



GT Access Lite is Guardtech's entry-level rapid door option - a powder-coated steel door with a standard anodised aluminium frame, featuring PIR insulation core and a clear opening width of 650 to 3140mm.

GT Access Lite is Guardtech's entry-level service door solution, designed for use in a variety of different controlled environment settings where the level of control is far less critical than at the higher end of ISO classification.

These robust, reliable powder-coated steel doors feature standard anodised aluminium frames and an ECOSafe PIR insulation core, with a clear opening width of 650 to 3140mm.





# **PRODUCT FEATURES**

For use in industries and applications with less demand on the level of control required.

### COATINGS

External coatings available in XL forté and Spectrum

Internal coatings available in CLEANsafe 25, CLEANsafe 55, CLEANsafe 120, CLEANsafe 304

Guardtech

orouo

### **OPENINGS**

Clear opening width 1100 mm (single), 2200 mm (double)

Clear opening height 2500 mm (single), 2500 mm (double)

### FRAME

Door frame available in standard anodised aluminium

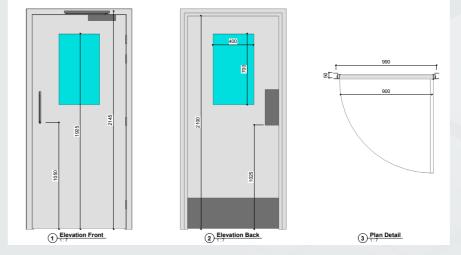


Vision panel, CLEANsafe 316 kickplate, aluminium kick plate

Thickness of door leaf: 40mm (t°+)

Internal door face stainless steel option is CLEANsafe 316, Kick Plates are stainless steel CLEANsafe 316

## **TECHNICAL DRAWINGS**



This drawing shows a typical example of the dimensions for a Guardtech GT Access Lite service door, but other sizes can be requested.

### PORTABLE CLEANROOMS

The Guardtech Group successfully utilise GT Access Lite in their award-winning CleanCube Mobile Cleanrooms. The images below show the product in use.











GT Access Lite suits the least demanding of applications - most commonly laboratories or non-classified controlled environments where considerations on the movement of air and type of airflow is of far less significance.

12

## BENEFITS & COMPROMISES

### **Benefits**

- ECOSafe PIR insulation core
- Shorter lead times
- Highly competitive price point

### Compromises

- Not available as a fully flush solution
- Only suitable for appli-
- cations where minimal levels of control are required



### APPLICATIONS



🕜 🏐 🛈 😚 😂



### **GT ACCESS FIRE** GT Access Fire is Guardtech's fire-rated



cleanroom door solution - a Certifire compliant high-performance steel construction with a reinforced non-combustible core available in various configurations.

Guardtech Group's fire-rated cleanroom door solution – synonymous with exceptional product quality and at- configurations. tention to detail

GT Access Fire doors can be certified latched are manufactured from or unlatched depending high-quality steel seamless finishes are applied to all leaf edges to ensure that surfaces can be easily cleaned and that there are no areas where dirt may collect louvres are also availaor bacteria can grow.

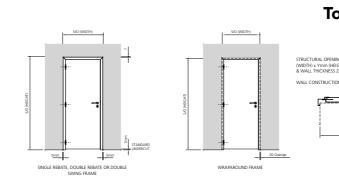
GT Access Fire is the non-combustible core (reinforced where required) and the range includes singles, doubles/leaf & half, all as per

GT Access Fire doors on size and configuration and can include vision panels up to 600mm wide x 800mm high or 200mm wide x 1500mm high. Fire-rated ble up to 500mm wide x Doors feature a 1500mm high.



Performance	Up to 120 mins. fire resistance integrity only, optional glazing
Description	High performance, mild steel, hinged fire door, lock form construction, Latched, single acting (with astragal/on dbls.)
Application	Hinged fire door applications requiring fire performance with optional glazing, durability, strength and no organic materials
Maximum sizes	Max Height each leaf- 2887 mm (@ 1061mm wide). Max width each leaf- 1352 mm (@ 2307mm high). Max area each leaf- 3.12 m2. Double doors may incorporate leaves of unequal sizes as long as smaller leaf is no smaller than 25% of larger leaf
Specification	Leaf: 44mm thick lock form 1.2mm skins of Galavaneal, Honeycomb core. Frame: Mitre Welded (single doors). Mitre Knockdown (double doors), single or double rebate press formed from 1.5mm Galvaneal, integral adjustment packers
Configurations	Single, Double Leaf ½ Optional over panels and side panels. Maximum area of over/side panel 2.49m2 (max height/width 849 x 3668mm
Accreditation	Tested to BS 476Pt 22 Certifire approved CF519. Manufactured to BE EN 9001. U value of 2.2 W/m2 K in accordance with ENISO 10077- 1:2006
Standard Hardware	Must have at least one latch. Class 13 SSS ball Bearing but hinges. Nemef mortise locks. Double doors fitted with Lever action flush bolts. SSS lever Handles
Standard options	PPC (see standard paint list) Non std colours also available). Fire Rated vision panels Maximum size of Vision panel 0.3m2. Maximum height 1340mm, maximum width 528mm.
	Fire rated louvers. Special frame profiles. Wrap around frames. Stainless steel option 308 or 316. Cleanroom spec, Acoustic spec up to 42dB. Hardware options. Knockdown Frames

# **TECHNICAL DRAWINGS**



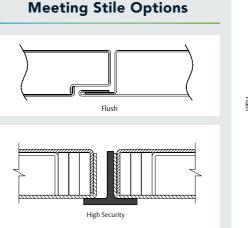
#### Integral Astragal

Overlapping astragals are required on cleanroom double leaf doors when fire resistance is necessary or when air pressure differentials between rooms need to be requlated. GT Access Fire doors feature a unique, fully-integrated astragal, ensuring no seams or fixings on the face of the door leaf.

#### Vision Panels

The doors feature a wide range of cGMP compliant vision panels. Options include 45° vision kits for sin-

Steel Double Door







Flush Cover Cap

**Fully Welded Frame** 

jambs and head.



Medical Device GT Access Fire is a fire-rated cleanroom door solution that can be adopted throughout a number of different sectors where there is a concerted requirement for fire safety, either from a compliance perspective or as part of a business' wider policy and expectations.

Guardtech orouo

### Tolerances



gle glazing or flush glazing to one or both sides. Vision panels can be supplied with no visible fixings to ensure an easy wipe-clean surface.

Doors can be finished with a flush cover cap at fixing positions for a smooth easy-clean surface on frames.

GT Access Fire door frames are supplied with a mitred, fully welded and ground-smooth connection between

## BENEFITS & COMPROMISES

### **Benefits**

- A Certfire compliant
- door solution
- Reinforced non-combustible core
- High-performance fire
- safe construction
- Quality steel
- Easy to clean

### Compromises

• Not a fully flush solution as standard

• More expensive option than GT Access Lite or Plus

• Potentially longer lead times than GT Lite or GT Plus

### PERFORMANCE

• FD30(S) – FD240(S) in ac- tinued conformity cordance with BS476 Part 22: 1987

ance with EN1634-1: 2008 • Most standard configura- 2.6m x 2.6m to FD60(S)/ tions are Certifire compliant and therefore regularly audited and approved by third party to ensure con- 2.4mH to FD90

### Options

• E30 – E240 in accord- • Double action with door opening size up to E60

> • Sliding with door opening size up to 2.2mW x

> > 🕜 🏐 🛈 😚 😂

### APPLICATIONS





# **FEATURES** Fully flush Semi-flush Vision panel option PIR core option

Mineral Fibre core option

Sliding option

Glass Reinforced Polyester (GRP)

Stainless steel construction

Superior chemical resistance

Anti-bacterial coating option

Gelcoat surface



17



### www.guardtech.com

Guardtech House, Unit 1A Homefield Road, Haverhill, Suffolk, CB9 8QP