

Your Professional Fire Glass Specialists

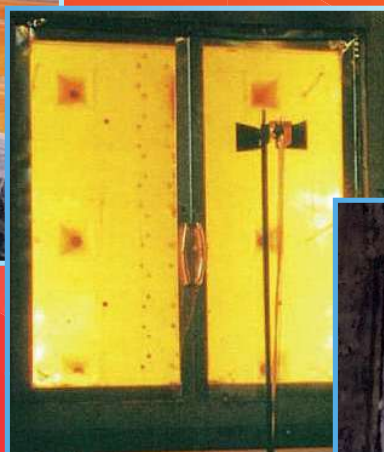
Since 1992



Frameless Glass
Screen



Horizontal Screen
Test



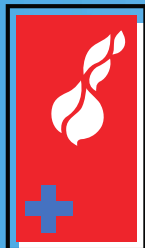
Door Test



Door Test

COMPARTMENT-LITE Fire Insulated Glass Door and Screen System

- ▶ **Frameless** Fire Rated Glass Screen — up to 1hr
- ▶ **Horizontal** Fire Rated Glass Screen — up to 4hr
- ▶ **Framed** Fire Rated Glass Screen — up to 4hr
- ▶ **Framed** Fire Rated Glass Door — up to 4hr



松与菊 (新) 有限公司
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COMPARTMENT - LITE

Fire Rated Glass Fixed Screen and Glass Door System

- 1** Compartment-Lite fire insulated glass systems are developed by **Flamelite (S) Pte Ltd** to comply with local by-laws and regulations stipulated under the local code of Fire Precaution for Buildings.

We offer a wide range of fire insulated glass systems to suit every permissible application.

- 2** **Product Range**

- Framed** Fire Insulated Glass Screen and Door. Fire rating up to 4 hours.
- Frameless** Fire Insulated Glass Screen. Fire Rating up to 1 hour for fixed screen.
- Horizontal** Fire Rated Glass Screen. Fire Rating up to 4 hours.

- 3** **Compliance With By-Law And Regulations**

- A. Mechanical Strength**

FSB/PSB requires that the glass is capable of withstanding 600N of impact force.

- BS EN 12600:2002 Glass in building -Pendulum test Impact test method and classification for flat glass.

- AS 2208 - Resistance against shattering.

BS EN 12209: 2016 - Building Hardware. Mechanically operated locks and locking plates.

- B. Fire Resistance Requirement**

BS 476 Pt 20 - 23 : 1987 for stability, integrity and insulation against heat radiation.

SS 332 : 2018 for Fire Resistance Door.

EN 1 364 - 1 : 2015 Fire-rated glass wall partition system.

EN 1 634 - 1 : 2014 / A1 : 2018 for Fire resistance and smoke control tests for door and elements of building hardware.

- C. Installation Requirement**

Code of Fire Precautions requires that the fire-rated glass system is assessed on a case-to-case basis for its suitability and acceptability for each specific occupancy purpose.

- 4** **Finishes available**

- Aluminium capping
- Timber Look Like
- Stainless Steel & others

- 5** **Consultancy**

The system is supplied with full consultancy on its design, manufacture and application to suit design and regulatory requirement. The major aspect of consultancy covers -

- Product approval
- Specific application for building plan approval
- Certificate of statutory completion

Note on compliance with FSB/PSB requirement

- Fire Rated glass door and screen system is available up to 4 hours.
- All the systems listed are available as multiple panel screens of unlimited length and maximum height of 8 meters.

For more information, please contact:



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CIDB Registered Contractor
 Grade : L3 Type : CR 16
 Co. Reg. No. 199205533 R
 GST Reg. No. M2-0109914-5



COMPARTMENT-LITE : TOTAL CONCEPT STRUCTURAL SAFETY FIRE RATED GLASS SYSTEM (IMPACT RESISTANCE, ANTI SHATTERING AND FIRE-INSULATED)

1. For Specification :-

To ensure quality and reliability, please specify “Compartment-Lite” structural safety laminated fire insulated glass system by “FLAMELITE (S) PTE LTD

2. Introduction

Compartment-Lite structural fire rated glass screen system consists of fire rated glass fixed screen and door system. The system was developed to meet fire resistance requirement of BS 476 pt 22-23, EN 1364:1:2015 & EN 1634:1:2014 + A1:2018 from One to Four hour in term of stability, integrity and insulation.

This system used laminated safety glass aimed at preventing cutting injuries and prohibiting forced entry.

3. Types Of Fixed Screen System

| System Rating | | Fixed Glass Panel | | Frame Size (T X W) | Remarks |
|------------------|---------|-------------------|------------------|--------------------|-----------------------------|
| | | Thickness (mm) | Size (Per Panel) | | |
| 1 Hour | S-01A | 25 | 1780 x 3000 | 74 x 65 | Insulated Glass (frameless) |
| 2 Hour | S-12B | 53 | 1780 x 3000 | 91 x 75 | Insulated Glass (frame) |
| 4 Hour | S-11-MB | 66 | 1197 x 2910 | 130 x 120 | Insulated Glass (frame) |

4. Types Of Door System

| System Rating | | Door Glass Panel | | Frame Size (T X W) | | Remarks |
|------------------|-----------|------------------|------------------|--------------------|----------|------------------------------|
| | | Thickness (mm) | Size (Per Panel) | Panel | Door | |
| 1 Hour | D-01A | 25 | 1253 x 2955 | 78 x 100 | 108 x 50 | Swing Insulated Glass |
| | D-01B | 25 | 1238 X 2548 | 74 x 75 | 74 x 50 | Swing Insulated Glass |
| | D-02 | 25 | 1370 x 2425 | 75 x 100 | 59 x 65 | Auto Sliding Insulated Glass |
| 2 Hour | D-03 A SL | 53 | 1300 x 2500 | 105 x 120 | 82 x 41 | Auto Sliding Insulated Glass |
| | D-04A-HB | 45 | 1243 x 2637 | 91 x 100 | 91 x 50 | Swing Insulated Glass |
| 4 Hour | D-05B-MA | 66 | 1233 x 2727 | 131 x 120 | 131 x 60 | Swing Insulated Glass |



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5. Glass

Glass used in Compartment-Lite system is made of high temperature resistance glass bonded with special resin against impact and cutting injuries.

The structural safety glass will be shatter proof. It will deter forced / unauthorized instruction due to its toughened membrane. The glass is highly polished. Its optical clarity is equivalent to that of clear float/tempered glass. The glass has been tested to withstand mechanical impact and BS EN 12600:2002 , AS 2208 & BS 5544. It has passed the test without penetration.

It is safety glass because it will not cut when broken.

The glass used can be laminated in colour, texture or sand blasted.

The glass has been subjected to boiling test. This test will ensure the lamination will not form bubbles when subject to solar radiation and effect of inclement weather.

6. Frame

The framing used is structural framing. It consists of a structural steel core and clad with fire rated materials. In some systems, solid timber framing is used. All the framing system has been tested and passed the requirement stipulated under the by laws and regulations.

7. Finishes

The glass can be sand blasted, carved or etched.

The frame can be clad with : -

- I) Aluminum in coating
- II) Timber look like
- III) Stainless steel
- IV) Others

8. By Laws And Regulations

a) Fire Safety

- I) BS476 pt 22 – 23, EN1364-1:2015 & EN1634-1:2014 + A1:2018 for stability, integrity and insulation
- II) Singapore standard 332 : for fire resistance door
- III) Cyclic movement test
- IV) FSB / PSB certification and listing

b) Mechanical Test

- I) BS EN 12600:2002 Glass in building – Pendulum test – Impact test method and classification for flat glass
- II) AS 2208 – resistance against shattering
- III) BS 5544 : 1978 specification for Anti-Bandit glazing with boiling test

9. Consultancy

Our fire safety experts will offer advice and consultation on : -

- I) Product approval
- II) FSB application
- III) PSB labeling
- IV) FSB certification for CSC application
- V) Interpretation of code of fire precaution



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Compartment-Lite Fire Rated Double Leaf Glass Door





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Compartment-Lite Fire Rated Unequal Leaf Glass Door





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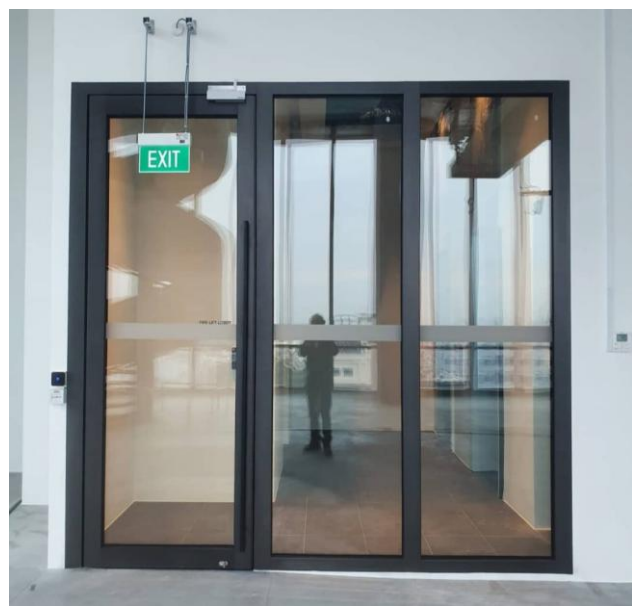
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Compartment-Lite Fire Rated Glass Door with Fixed Panel





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DIMENSIONS



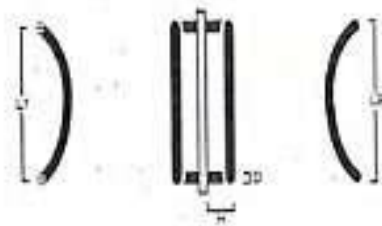
SIZE (mm)

| L1 | D | L2 | H | W |
|-----|----|-----|----|-----|
| 275 | 25 | 300 | 70 | 60 |
| 305 | 25 | 330 | 70 | 60 |
| 425 | 32 | 457 | 70 | 95 |
| 350 | 32 | 382 | 90 | 140 |

H03



DIMENSIONS



SIZE (mm)

| L1 | D | L2 | H |
|-----|----|-----|----|
| 305 | 25 | 330 | 70 |
| 425 | 25 | 450 | 70 |
| 425 | 32 | 457 | 70 |
| 599 | 32 | 600 | 70 |

H06



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COMPARTMENT-LITE: UP TO 4 HRS FIRE RATED INSULATED GLASS DOOR SYSTEM

INTRODUCTION

Compartment-Lite Fire Rated Insulated Glass Door is developed to meet 3 main objectives of design

- a) To comply with increased demand for fire safety enhancement
- b) To meet with the aesthetic element of design
- c) To meet functional requirement on the visibility aspect.

The fire rated insulated glass door is aimed to meet the challenge of incorporating clear glass components in the severe compartmentation requirement of structural elements.

Door

The door consists of special glass components fitted into a special fire-rated framing system integrated to meet the stringent requirement of continuous burning at high temperature of 1100°C without failure on integrity or collapse and insulation.

Glass

The glass is made up of multi-laminated / double-glazed fire-resistant glass. The glass assembly can meet the fire insulation requirement as well as the impact resistant test. It is considered to be safety glass as well.

Frame

The framing system consists of structural steel core clad all round with insulation boards and treated specifically to withstand extreme burning. The door assembly and its ironmongery must meet the stringent cyclic requirement of 100,000 consecutive and continuous swings without failure.

BY-LAW AND REGULATIONS

1. Fire Test - SS332 : 2018 for fire resistant performance by TÜV SÜD PSB (Singapore Productivity and Standards Board)
2. Cyclic Movement Test - SS332 : 2018 for door swing conducted by TÜV SÜD PSB.
3. Impact Resistance Test - BS EN 12600:2002 Glass in building – Pendulum test – Impact test method and classification for flat glass

DIMENSION

The maximum dimension of the door is :Single Leaf - 1300mm (width) x 2800mm (height)
Double Leaf – 2600mm (width) x 2800mm (height)

SPECIFICATION

To ensure reliable product, please specify 'Compartment-Lite' fire rated glass pivoted swing door up to Four hours fire rating.



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Glass Technical Data

Types of Fire-Insulated Fixed Screen Systems

| System | | Fixed Glass Panel | | Frame Size (T X W) | Remarks |
|--------|---------|-------------------|------------------|--------------------|-----------------------------|
| | | Thickness (mm) | Size (Per Panel) | | |
| 1 Hour | S-01A | 25 | 1780 x 3000 | 74 x 65 | Insulated Glass (frameless) |
| 2 Hour | S-12B | 53 | 1780 x 3000 | 91 x 75 | Insulated Glass (frame) |
| 4 Hour | S-11-MB | 66 | 1197 x 2910 | 130 x 120 | Insulated Glass (frame) |

Types of Fire-Insulated Doors

| System | | Door Glass Panel | | Frame Size (T X W) | | Remarks |
|--------|-----------|------------------|------------------|--------------------|----------|------------------------------|
| | | Thickness (mm) | Size (Per Panel) | Panel | Door | |
| 1 Hour | D-01A | 25 | 1253 x 2955 | 78 x 100 | 108 x 50 | Swing Insulated Glass |
| | D-01B | 25 | 1238 X 2548 | 74 x 75 | 74 x 50 | Swing Insulated Glass |
| | D-02 | 25 | 1370 x 2425 | 75 x 100 | 59 x 65 | Auto Sliding Insulated Glass |
| 2 Hour | D-03 A SL | 53 | 1300 x 2500 | 105 x 120 | 82 x 41 | Auto Sliding Insulated Glass |
| | D-04A-HB | 45 | 1243 x 2637 | 91 x 100 | 91 x 50 | Swing Insulated Glass |
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