



**DOORS & DOORS**

DESIGN ● ENGINEERING ● CONSULTANCY

**excellence delivered**

**FIRE DOOR**

# 01 THE IMPORTANCE OF FIRE DOORS

In any building, you have the right to expect that you will be safe and protected whenever a fire breaks out. Sadly, this is not always the case. Sometimes, something within the fabric of the building or fire safety devices fail and tragedy occurs causing serious injury and in some cases even death.

Fire doors are part of a building's passive fire protection system; an essential requirement for all public buildings, offices, factories and residences.

The purpose of a wooden fire door in everyday life is the same as any other door, except that, when a fire breaks out, the door must perform its prime purpose of protecting lives and offering stability, insulation and integrity. This is exactly what Fire Doors achieve for the remainder of the building and other things within the building.

# 02

## KNOW YOUR FIRE DOOR!

Doors & Doors India Pvt. Ltd., can offer assistance in developing cost effective, innovative solutions to meet the most demanding specifications. PROMAT calcium silicate boards, Promatech H, Promina 60 and complementary lighter version Promatech L500 are used in our Fire Doors. These Fire Doors have passed stringent tests. Our team of highly trained specialists provides technical support during estimation until design and manufacturing. Doors & Doors India Pvt. Ltd., have been manufacturing Fire Doors since 2004.



# 03 WOODEN FIRE DOOR

Doors & Doors India Pvt. Ltd., brings you Acoustic Wooden Fire Doors, which provides you with a multifunctional product i.e. a combination of fire as well as sound retardant properties. The construction of the wooden fire door with sound retardant properties are the same as that of a Standard Wooden Fire Door with the addition of an Automatic Drop Seal and Silicon Self Adhesive Seals on the sides of the panel.

- A fire door is a type of door, or closure used as a passive fire protection item within buildings to prevent the spread of fire. It usually is the only means of allowing people to pass through and or to escape. It provides critical insulation from fireside in the escape stairwell.
- Designed to meet the life safety requirements in various types of buildings and structures that are compartmentalized to contain the spread of fire, these doors complement existing passive fire fighting systems.
- The necessity of these doors is governed by national building codes as well as directive of local fire fighting and municipal authorities. These doors in general are certified for 60 and 120 minute, fire rating.

## INSIDE ELEVATION

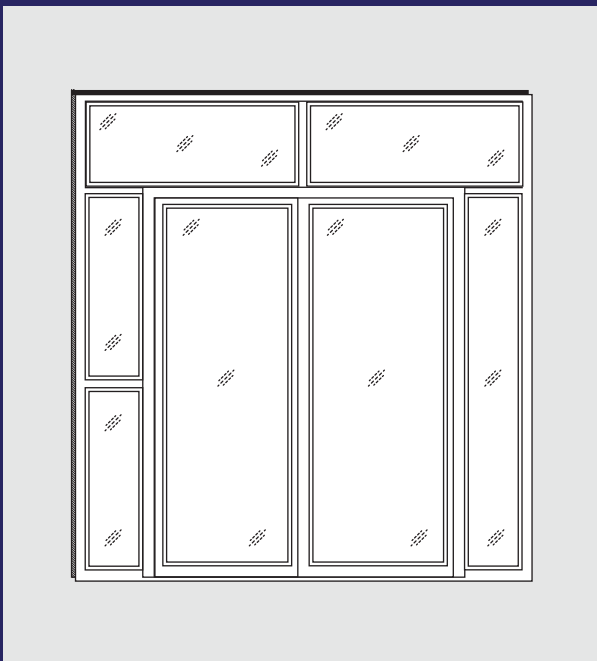
DOUBLE LEAF 120 MIN FIRE RATED DOOR  
SIZE : 2400 mm x 2700 mm x 90 mm Thick  
SINGLE SHUTTER WEIGHT : 180 kg.



# 04

## KNOW YOUR FIRE DOOR!

Fire Resistant Glass MS Framed Glazed Fire Doors System Doors & Doors System (I) Pvt., Ltd., has launched Glazed Fire Doors System with MS Frame in India.



- These come to you as complete "Door Systems" which means the glass is provided along with complete framing. These "systems" are tested in reputed laboratories to ensure that they conform to the highest standards.
- Where previously dark, solid fire walls were the only option to segregate escape routes, common areas and staircases, Doors & Doors are able to offer you a stunning slim - line Mild Steel & Stainless steel frame for fire rated glass doors.
- Our minimal welded steel frames offer outstanding performances for fire resistance and smoke control providing the perfect solution for modern office buildings, schools and hospitals, where aesthetic and the ability to meet stringent building regulations must go hand in hand.

# 05

## ENSURING BUILDING SAFETY

The most tangible of all visible mysteries - FIRE.  
Natural disasters or calamities cannot be avoided but we can control the spread of fire and smoke through buildings.

How can we ensure a building is safe from fire?

- Proactive fire protection
- Active fire protection
- Means of escape
- Access and facilities for the fire service

Role of Proactive Fire Protection

- Ensure the safe escape of building occupants
- Give fire fighters the time to rescue occupants
- Property Protection
- Preventing economic damage

# 06

## 3 METER X 2.4 METER DOUBLE DOOR FIRE DOOR WITH VISION PANEL



Today, modern architecture demands for large openings to give a feel of openness and bring in more light and great ambience but how do we secure these large spaces, from security and fire to prevent loss of life and equipment especially when large investments are made in light of these challenges.

Doors and Doors designed, manufactured and tested 3-meter x 1.2-meter single fire door and 3-meter x 2.4 double door with vision panel for stability, integrity as well as insulation for more than 120 min., that provide the client peace of mind, even when he is away from home or office. These doors, serve as full height wall barriers that limit and control the spread of fire as well as that of smoke and eventually save life and property.



# 07

## **3 METER X 1.2 METER SINGLE DOOR WITH VISION PANEL**

**These doors are tested at Spectro Analytical Labs Limited a NABL approved test lab -for BS EN 1634-1 with stringent inspection both prior to installation and at time of installation as well as during testing and post testing to see the remains of the door from within, to verify that correct materials as specified are used.**



### **Fire Door Certification**

Each fire-rated door sold on the market must include a permanent label showing the following information:

- The door manufacturer,
- Whether the opening is equipped with fire exit hardware,
- If it is a smoke door assembly,
- The length of time that the door is intended to resist fire.



Sr. No.	Rating	Size		Shutter Thickness	Type of Door	Test done in following Research Institute	Objective
		Width	Height				
1.	145 min	2400 mm	3000 mm	90 mm	Wooden Door with Vision Panel	Spectro SSA Labs Pvt. Ltd.	Doors was tested in accordance with BS EN 476-1:2014 , Determination of fire resistance of fully insulated door & shutter assemblies with vision panel.
2.	120 min	1200 mm	3000 mm	90 mm	Wooden Door with Vision Panel	Spectro SSA Labs Pvt. Ltd.	Doors was tested in accordance with BS 476-Part 20 & part 22 :1987, Determination of fire resistance of fully insulated door & shutter assemblies with vision panel.
3.	120 min	1200 mm	2700 mm	90 mm	Wooden Door	Indian Plywood Industries Research & Training Institute (IPIRTI)	Doors was tested in accordance with BS 476-Part 22:1987, Determination of fire resistance of fully insulated door & shutter assemblies .
4.	120 min	2400 mm	2700 mm	90 mm	Wooden Door	Indian Plywood Industries Research & Training Institute (IPIRTI)	Doors was tested in accordance with BS 476-Part 22:1987, Determination of fire resistance of fully insulated door & shutter assemblies .
5.	120 min	1200 mm	2400 mm	64 mm	Wooden Door	Spectro SSA Labs Pvt. Ltd.	Doors was tested in accordance with BS 476-Part 20, Determination of fire resistance of fully insulated door & shutter assemblies with drywall
6.	120 min	1000 mm	2100 mm	60 mm	Wooden Door	The Automotive Research Association of India (ARAI)	Evaluation of the fire resistance of insulated single leaf wooden door in terms of stability, integrity & insulation as per IS 3614 Part(2):1992
7.	120 min	1000 mm	2150 mm	63 mm	Wooden Door	The Automotive Research Association of India (ARAI)	Measurement of sound transmission loss of above mentioned mercury acoustic and fire doors as per ASTM E-413 and weighted sound reduction index R W (C; Ctr) & spectrum adaptation term as per ISO 717-1
8.	60 min	1000 mm	2150 mm	53 mm	Wooden Door	The Automotive Research Association of India (ARAI)	Measurement of sound transmission loss of above mentioned mercury acoustic and fire doors as per ASTM E-4 13 and weighted sound reduction index R W (C; Ctr) & spectrum adaptation term as per ISO 717-1
9.	30 min	1000 mm	2150 mm	40 mm	Wooden Door	Indian Plywood Industries Research & Training Institute(IPIRTI)	30 Minutes mercury fire rated wooden door(Shutter + Frame). Tested for fire rating of 30 minutes as per BS 476 Part (20 & 22):1987
10.	60 min	1200 mm	2400 mm	50 mm	Wooden Door	Spectro SSA Labs Pvt. Ltd.	Doors was tested in accordance with BS 476-Part 20 & part 22 :1987, Determination of fire resistance of fully insulated door & shutter assemblies
11.	120 min	1200 mm	2400 mm	50 mm	Metal Glazed Door	Spectro SSA Labs Pvt. Ltd.	Doors was tested in accordance with BS 476-Part 20 & part 22 :1987, Determination of fire resistance of fully insulated door & shutter assemblies

# 09 Types of Fire Doors

There are a variety of types of doors available, with different fire ratings and made from different materials. Mainly in India it is 60., min and 120., min fire tested doors with different heights and thickness depending on Stability, Integrity and Insulation The door assembly may also include fire-resistant doorframes, hinges, Fire seals, hardware and glazing. Different finishing and styles of doors are available, which can either match the interior decor or stand out, so they're easy to notice, in an emergency.

## Implementing Fire Door Safety

Many business owners and property managers have questions about how fire doors should be used, day to day. Here are clear answers to some common concerns.

### Do fire doors always need to be closed?

Some companies have interior fire doors that typically remain open between departments during normal business hours, but they will automatically close in the event of an emergency. If the door is not equipped with an automatic closing device, do not prop it open. While it can be convenient to put a wedge in, to keep a fire door open, creating an easy exit or to let in breeze, an open door can defeat its fire-protection capabilities in the event of a fire.

### Should fire doors be locked?

Don't block it or lock it. Chaining the doors shut or blocking them in any way is dangerous and may be a violation of fire safety codes. Using anything other than fire-rated, fail-safe hardware can lead to injury or even loss of life in an emergency requiring quick evacuation. Finding the doors blocked can be a significant safety hazard and cause further panic for an already scared crowd.

### Can we make changes to the door frame or hardware?

Because? fire-resistant they are tested as complete door assemblies and manufactured in factories, onsite modifications are limited.

### When do fire doors need to be replaced?

The overall fire resistance and rating of a fire door may deteriorate over time. To ensure that the door is well maintained and still ensures adequate protection, these doors must be inspected yearly. Follow the recommended maintenance and repair schedule. The need for replacement will depend on the wear and tear that it experiences.

# 10 COMMON MYTHS OF FIRE DOORS

1. Myth: Painting a door with flame proof paint makes it a fire door

FALSE: This would not be recognised as a fire door by British Woodwork Foundation (BWF), the leading authority on fire door safety. A door is made up of many compatible and fire-tested materials and components, all listed on the fire door certificate.

2. Myth: I shouldn't put any furnishings in front of the fire door, even if they are light and easy to move

TRUE: Quite simply, do not have any obstructions in front of a fire door. Make sure you have a clear pathway to get out in the case of a fire. Smoke and flames could prevent you from seeing clearly in front of you. Surveys recently carried out showed that 74 per cent of tradespeople had seen a blocked or obstructed fire door

3. Myth: The gap between the fire door and the door frame doesn't matter

FALSE: The dimension of the gap around the entire perimeter of the door is critical to preventing the passage of toxic fumes and smoke in the event of a fire. Recent research revealed 34 per cent of fire doors fitted had excessive gaps (over 3mm). On a fire door with smoke seals this gap is commonly 3mm - but always check the fire door certificate. The gap under the door can be slightly larger (up to 8mm), but it does depend on the door. Ideally, you should not see light under the door.

4. Myth: I can find everything I need to know about my fire door once it's fitted

TRUE: Every fire door must have a current independently accredited test certificate. This proves the door's fire rating, test criteria, and manufacturing compliance. It also shows that the door's components meet strict performance and compliance standards. It also gives critical information about installation. Look for a label or plug on top (or occasionally on the side) of the door. Without a certification mark, you cannot be sure this really is a fire door.

5. Myth: Any lock can be fitted onto a fire door because it's made of metal, and metal doesn't burn in a fire

FALSE: The lock must be fire tested and BWF fire door certified. Metal gets extremely hot in the event of a fire and it can quickly go from being the strongest element of your door to the weakest. The additional fitting of intumescent protection can provide a minimum of 30 mins fire protection.

6. Myth: Should fire doors be locked?

FALSE: Don't block it or lock it. Chaining the doors shut or blocking them in any way is dangerous and may be a violation of fire safety codes. Using anything other than fire-rated, fail-safe hardware can lead to injury or even loss of life in an emergency requiring quick evacuation. Finding the doors blocked can be a significant safety hazard and cause further panic for an already scared crowd



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