

FIRE PROTECTION DOOR





Doors that PROTECT...

Need of Fire Door:

Fire doors are provided to stop fires spreading in fire related emergency. They principally do this by preventing Fire, heat and smoke from travelling through the building. Smoke may reach many hundred degrees in temperature and a very small amount of material having burnt can produce a huge quantity of smoke. Depending on what has burnt the smoke will also be toxic, suffocating, choking, and may be invisible.

Fire Resisting Doors are passive fire protection devices which compartmentalize and prevent the spread of fire and smoke to adjoining compartments which is vital for the protection of life and property

Fire doors act as an effective fire barrier which also prevents excessive transmission of heat and smoke.

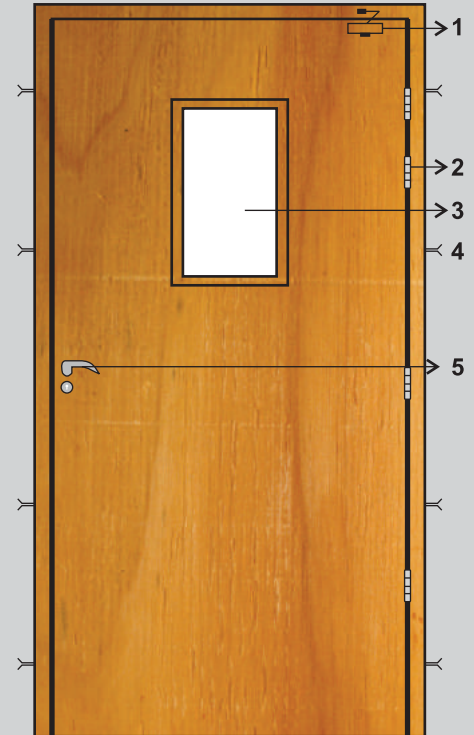
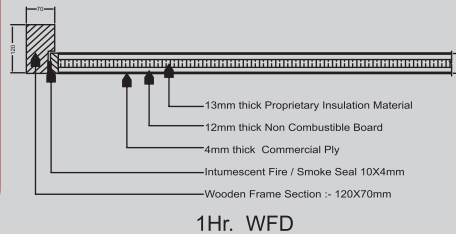
ONE HOUR RATED WOODEN FIRE DOOR

Door frames made out of Hardwood section of size 120 x 70 mm (nominal) for mounting shutters of 60 minutes fire rating with heat activated Intumescent fire seal strips of size 10 x 4 mm provided in grooves on all three sides of the frame.

Door shutter 45 mm thick non - metallic asbestos free fire resistant doors of 60 minutes rating conforming to BS: 476 part 22/IS-3614 Part 2 as per prototype tested and certified at CBRI Roorkee suitable for mounting on door frames. The shutters shall comprise of two non-combustible boards 12 mm thick sandwiching 13mm thick fire resistant insulation filler, veneered with 4 mm thick commercial ply on both the faces and hardwood lipping on all the sides with heat activated Intumescent fire seal strips of size 10 x 4 mm on all the sides of the shutter except bottom provided in suitable groove.

Technical Details :

1. Door Closer
2. S.S. Ball Bearing Hinges
3. Fire rated Clear/Wired Glass
4. M.S. Hold fastner
5. Mortice Lock with Lever Handle



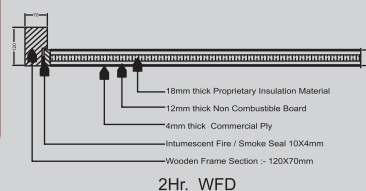
TWO HOUR RATED WOODEN FIRE DOOR

Door frames made out of Hardwood of size 120 x 70 mm (nominal) suitable for mounting shutters of 120 minutes fire rating with heat activated Intumescent fire seal strips of size 10 x 4 mm provided in grooves on all three sides of the frame.

Door shutter 50 mm thick non - metallic asbestos free fire resistant doors of 120 minutes rating conforming to BS: 476 part 22/IS-3614 Part 2 as per prototype tested and certified at CBRI Roorkee suitable for mounting on door frames. The shutters shall comprise of two non-combustible boards 12mm thick sandwiching 18mm thick fire resistant insulation filler, veneered with 4 mm thick commercial ply on both the faces and hardwood lipping on all the sides with heat activated Intumescent fire seal strips (Imported) of size 10 x 4 mm on all the sides of the shutter except bottom provided in suitable groove.

Technical Details :

1. Door Closer
2. S.S. Ball Bearing Hinges
3. Fire rated Clear/Wired Glass
4. M.S. Hold fastner
5. Panic Bar

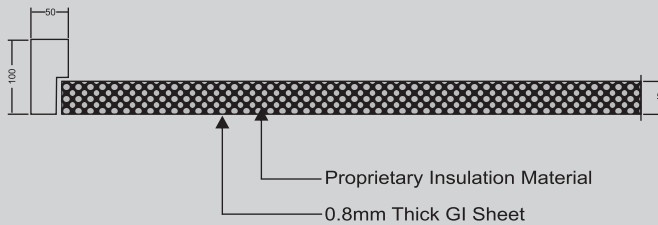


ONE HOUR RATED STEEL FIRE DOOR

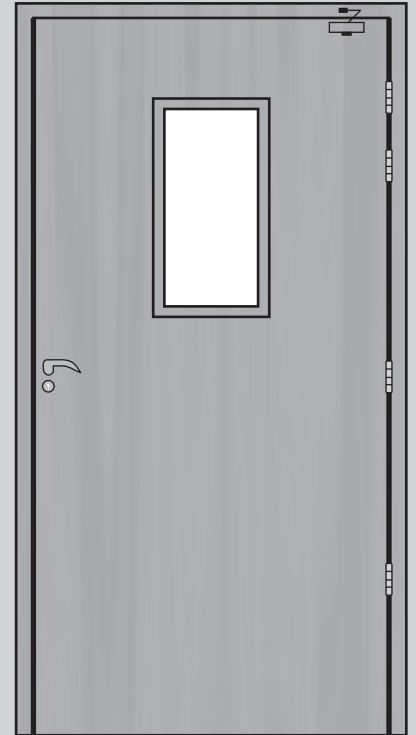
Galvanized steel Flush Fire doors of 1hr. Fire rating and tested in accordance with IS 3614 Part 2 & BS 476 Part 22:

Door frames to be single rebate profile of 100 x 50 mm manufactured from 18 gauge galvanized steel profile to have bending radius of 1.4 mm supplied in assembled form ready to install at site.

Door Shutter in 46 mm thick manufactured from two 22 gauge galvanized steel sheets lock seam jointed at stile edges to form a double skin fully flush shell. Infill of Proprietary insulation material to be provided for structural rigidity & additional reinforcements & sound Insulation for all hardware fixtures as required.



1Hr. SFD

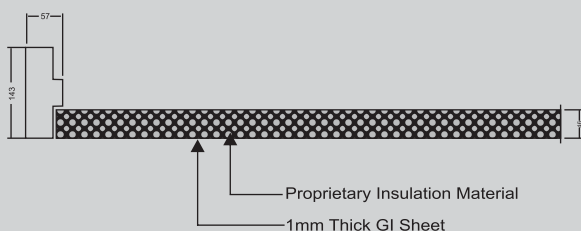


TWO HOUR RATED STEEL FIRE DOOR

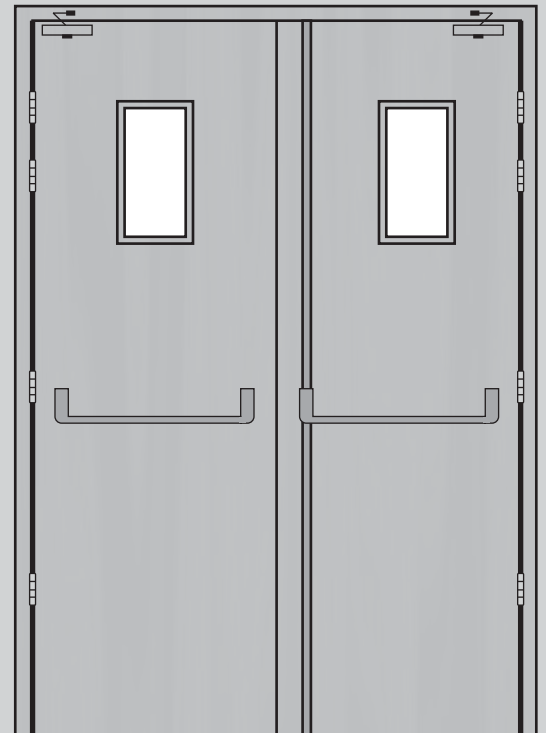
Galvanized steel Flush Fire doors of 2hr. Fire rating and tested in accordance with IS 3614 Part 2 & BS 476 Part 22:

Door frames to be double rebate profile of 143 x 57 mm manufactured from 16 gauge galvanized steel profile to have bending radius of 1.4 mm supplied in assembled form ready to install at site.

Door Shutter in 46 mm thick manufactured from two 20 gauge galvanized steel sheets lock seam jointed at stile edges to form a double skin fully flush shell. Infill of Proprietary insulation material to be provided for structural rigidity & additional reinforcements & sound Insulation for all hardware fixtures as required.



2Hr. SFD



TWO HOUR RATED STEEL FULLY GLAZED FIRE DOOR

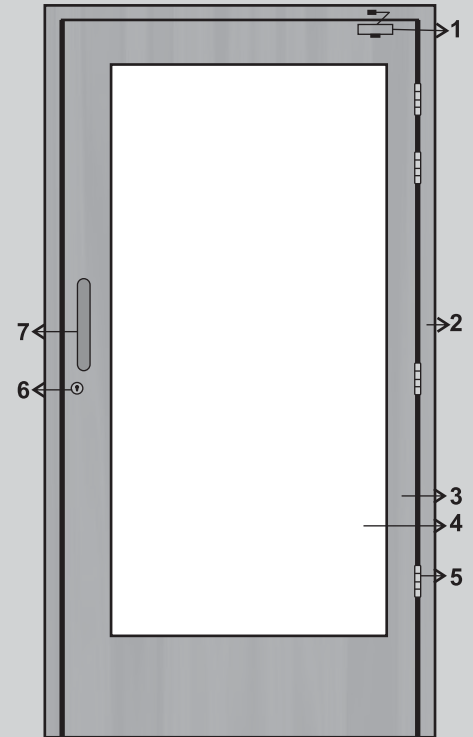
Galvanized steel Flush Fire doors of 2 hrs. Fire rating and tested in accordance with IS 3614 Part 2, & BS 476 Part 22:

Door frames to be double rebate profile of 143 x 57 mm manufactured from 16 gauge galvanized steel, profile to have bending radius of 1.4 mm supplied in assembled form ready to install at site.

Door Shutter in 46 mm thickness made of 20 gauge galvanized steel 150 mm thick vertical stiles on both sides of the shutter & 200 mm on bottom of the shutter & 150 mm on top of G.I. sheet with 6 mm thick Fire Rated Clear/Wired Glass of 120 minutes rating confirming to BS 476: part 22, including gasket channel and moulding / beading.

Technical Details :

1. Door Closer
2. G.I./S.S. Frame
3. G.I./S.S. Shutter
4. Fire Rated Clear/Wired Glass
5. S.S. Ball Bearing Hinges
6. Dead Lock
7. S.S. Handle



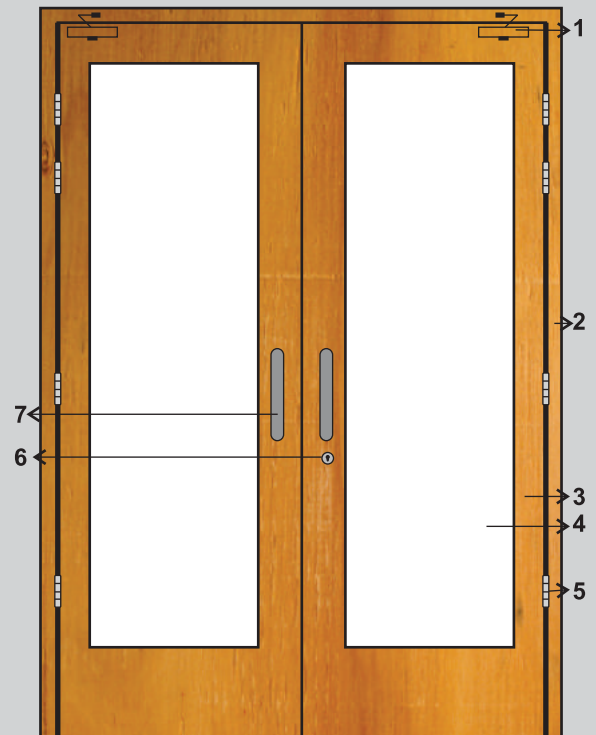
TWO HOUR RATED WOODEN FULLY GLAZED FIRE DOOR

Door frames section size 120 x 70 mm (nominal) suitable for mounting shutters of 120 minutes fire rating, with heat activated Intumescent fire seal strips of size 10 x 4 mm provided in grooves on all three sides of the frame.

Door shutter 50 mm thick fully glazed Fire Rated Door comprising of vertical stiles of 150 mm on both sides of shutter and 200 mm on bottom of the shutter & 150 mm on top including fixing of 6 mm thick Fire Rated Clear/Wired Glass of 120 minutes rating confirming to BS 476: part 22, including gasket channel and moulding/ beading. The gap between moulding/beading and glass shall be filled with the Sealant with heat activated Intumescent Fire Seal Strips of size 10 x 4 mm on all sides except bottom provided in suitable groove.

Technical Details :

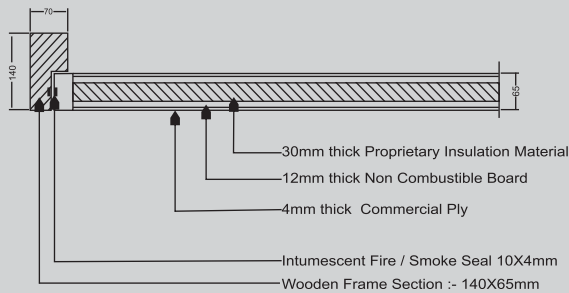
1. Door Closer
2. Hardwood Frame Section 120X70mm
3. 50mm Thick Shutter
4. Fire Rated Clear/Wired Glass
5. S.S. Ball Bearing Hinges
6. Dead Lock
7. S.S. Handle



TWO HOUR RATED WOODEN ACOUSTIC CUM FIRE DOOR

Door frames made out of Hardwood of size 140 x 65 mm (nominal) suitable for mounting shutters with heat activated Intumescent fire seal strips of size 10 x 4 mm provided on grooves on all the three sides of the frame.

Door shutter 65 mm thick non-metallic asbestos free fire Acoustic doors of 120 minutes rating conforming to BS: 476 part 22/IS-3614 Part 2 as per prototype tested and certified at CBRI Roorkee suitable for mounting on door frames. The shutters shall comprise of two non-combustible boards 12 mm thick sandwiching 33 mm thick fire cum acoustic resistant insulation filler, with 4 mm thick commercial ply on both the sides and acoustic hardwood lipping all-round with heat activated Intumescent fire seal strips of size 10 x 4 mm on all the sides.



Acoustic Cum Fire Door

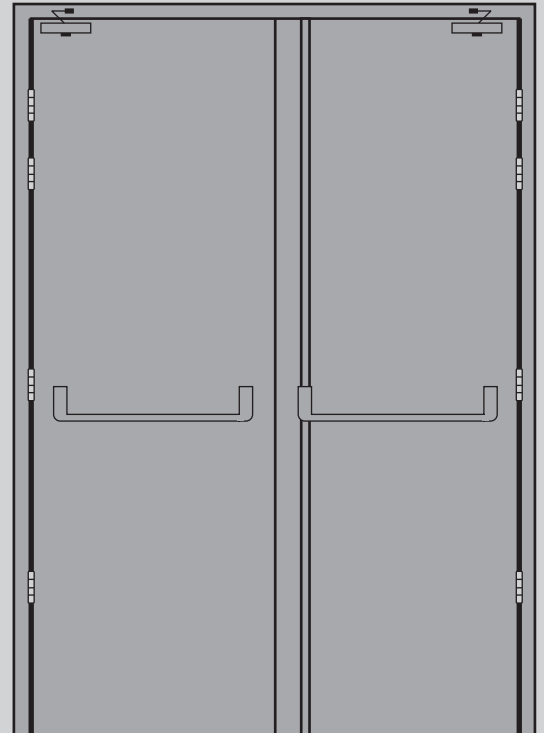


TWO HOUR RATED STEEL ACOUSTIC FIRE DOOR

Galvanized steel Flush Fire doors of 2 hrs. Fire rating and tested in accordance with IS 3614 Part 2 & BS 476 Part 22:

Door frames to be double rebate profile of size 143 x 57 mm manufactured from 16 gauge galvanized steel profile to have bending radius of 1.4 mm supplied in assembled form ready to install at site with Acoustic Seal all around the frame except bottom.

Door Shutter in 65 mm thick manufactured from two 20 gauge galvanized steel sheets lock seam jointed at stile edges to form a double skin fully flush shell. Infill of fire/acoustic Proprietary insulation material to be provided for structural rigidity & additional reinforcements & sound Insulation for all hardware fixtures as required.



TEST SCHEDULE 1/1
(Reference No. - FR/0332)

1. Name of the Laboratory : Fire Research Laboratory
CSIR-Central Building Research Institute,
Roorkee-247 667

2. Name of the Party : M/s. Kinde Fire Protection
D-293C, Gali No.5,
Mangle Bazar Road, Near Kaushal Timber and
plywood store,
Sangam Vihar, Opp. Batra Hospital,
New Delhi-110 062

3. Name of the Test : Fire Resistance Test

4. Date of Test : August 19, 2013

5. Ambient Temperature : 30 °C

6. Fire Exposure : As per BS-476 Part 20 & 22

7. Applicability of Test Criteria : Stability : Yes
Integrity : Yes
Insulation : Yes

8. Specimen Details : Single Leaf Single Swing Wooden Composite Fire Door
Door Frame : Door Panel
Height : 2100 mm 1990 mm
Width : 1000 mm 900 mm
Thickness : 120 mm 50 mm

9. Specimen Construction : As shown in Figure 1 and Figure 2
(Drg. No. 1/1-0332(1) and 1/1-0332(2))

10. Door Type : Insulated

11. Door Installation : Opens towards the furnace chamber

12. Intended Test Duration : 120 Minutes

Test Results

The data of the evaluation reveals that the single leaf single swing wooden composite fire door specimen has been found to be able to withstand standard fire exposure for 120 minutes (One hundred twenty minutes only) with respect to stability, integrity and thermal insulation.

(Sushil Kumar) (Dr. N.K.Saxena) (Dr. Suvir Singh)

(Technical info provided in this schedule pertains to the specific sample submitted to the Institute and tested. CBRI's name or logo cannot be used for commercial purposes. All procedural, legal, and/or operational matters will be the responsibility of the party using these results. Accepting / Rejecting the results, partly or fully rests with the users agencies.)

FIRE RESEARCH LABORATORY
CSIR - Central Building Research Institute
Roorkee - 247 667 (U.K.) INDIA

उद्योग एवं वाणिज्य विभाग, हरियाणा
DEPARTMENT OF INDUSTRIES AND COMMERCE, HARYANA

कार्यालय : सहायक निदेशक (तकनीकी)
राजकीय गुण चिह्नकेंद्र
वाणिज्य मंत्रालय
पुनर्मा औद्योगिक क्षेत्र,
नजदीक कृष्णा पेपर मिल, बहादुरगढ़, (हरि.)
दूरभाष : 09206-243350

TEST REPORT

T.R. No. GMC/BGH/ 7123 13-14/I, S.No.207/ 163 Dated: 09/07/2013

Issued to: M/s. Kinde Wooden and Steel Fabricator, D-293C, Mangle Bazar Road,
Sangam Vihar Opp. Batra Hospital, New Delhi-110 062

With Ref. to Letter No. 264 Dated: 05.06.2013

Sample Described as: Wooden Fire door Size 1200 x 2400 x 50mm thick

Sample Tested as per Specification No. 3614 (Part-II) & BS: 476 (Part: 22)

S.No.	Particular of test	Observed Value
1.	Type & Size of the door.	Wooden fire door of size 1200 x 2400mm having 50 mm thick shutter & Frame of section 120 x 70 mm with heat activated intumescent fire seal strip (Imported) of size 10 x 4 mm provided in grooves on all three sides of the frame. Door shutter 50mm thick non-metallic asbestos free fire resistance doors. The shutter shall comprise of two non-combustible boards 12 mm thick sandwiching 18mm thick fire resistance insulation filler, veneered with 4mm thick commercial ply on both the faces and hardwood lipping on all the sides of the shutter except bottom provided in suitable groove with SS ball bearing Hinges, door closer & clear vision panel of size 200 x 300mm.
2.	Test Results.	The test reveals composite wooden fire door assembly specimen has been found to be able to withstand standard fire exposure for 120 minutes (Two hours) with respect to three criteria of stability, integrity & thermal insulation as per IS 3614 (Part-II), & BS: 476 (Part: 22). The sample passes the test for 120 minutes (Two hours).

TESTED BY: [Signature]

ASSTT. DIRECTOR (Tech.)
Assistant Director (Tech.)
Government Quality Marking Centre
For Engineering Goods, Bahadurgarh

NOTE: 1. This certificate refers only to the particular sample (s) submitted for test.
2. This Report is not to be reproduced or published wholly or in part and cannot be used as an evidence in court of Law and should not be used in any advertising media without the special permission in writing Director of Industries and Commerce Haryana, Chandigarh.
3. Sample will be destroyed after three months.
4. Samples were not drawn by us.

Door Closer



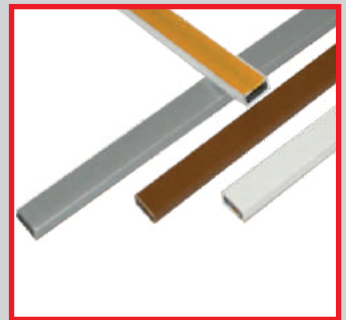
Mortice Lock



Panic Bar



Intumescent Seal



Fire Rated Clear/Wired Glass

Important Fire Door's Requirement as per New 2005 Revised National Building Code of India Part - 4

CLAUSE NO.	EXPLANATION
2.13	A way out leading to an escape route having panic bar hardware provided on the door.
3.4.8.3	The inspection door for electrical shafts/ducts shall be not less than 2 hrs. For there services shafts/ducts,the same shall have fire resistance not less than 1hr.
4.2.9	Fire doors with 2hrs resistance shall be provide at appropriate places along the escape route and particularly at the entrance to lift lobby and stair well where a 'funnel or flue effect' may be created, including an upward spread of fire to prevent spread of fire and smoke.
4.9.10(b)	For building 15m in height or more, access to main staircase shall be through a fire/smoke check door of minimum 2hrs fire resistance rating. Fire resistance rating may be reduced to 1hrs for residential building (except hotels and starred hotels)
4.12.2	A horizontal exit shall be equipped with at least one fire/smoke door of minimum 1hr fire resistance, of self-closing type. Further, it is required to have direct connectivity to the fire escape staircase for evacuation.
6.1.4.6	Doors leading to rooms in which flammable liquids are stored or used shall be self-closing and shall be posted with a sign each side of the door in 25 mm high block letters stating "FIRE DOOR KEEP CLOSED"
Annexe C-1.5(h)	Exit from the lift lobby, if located in the core of the building, shall be through self-closing smoke stop door of Half an Hour fire resistance.
Annexe C-1.6.2	The staircase of basements shall be of enclosed type having fire resistance of not less than 2 hrs and shall be situated at the periphery entered at ground level only from the open air and in such position that smoke from any fire in the basement shall not obstruct any exit serving the ground and upper stores of the building and shall communicate with basement through a lobby provided with fire resistance self-closing doors of 1 hr fire resistance.
Annexe C-1.9(a)	Service ducts and shafts shall be enclosed by walls of 2 hrs and door of 1 hr fire rating. All such ducts/shafts shall be properly sealed and fire stopped at all four levels.
Annexe C-1.18(c)	Entry to this room shall be provided with a composite door of 2 hour resistance(boiler room's)



Toshi Automatic Systems Pvt. Ltd.

 D-132-133/2, Bulandshahar Industrial Area, Ghaziabad - 201009, U.P., India

 +91-9711-186-186

 info@toshiautomatic.com

 www.toshiautomatic.com

New Delhi | Punjab | Gujarat | Maharashtra | Uttar Pradesh

