



SEHGALdoors

DOORS >>> WINDOWS >>> WALLS >>> CANVAS



Technology Transfer From
CSIR Council of Scientific and
Industrial Research

CENTRAL BUILDING RESEARCH INSTITUTE (CBRI)



**FIRE RETARDANT &
WATER REPELLENT CANVAS**

NATIONAL PHYSICAL LABORATORY (NPL)



**ACOUSTICAL LIGHTWEIGHT
INTERIOR DRY WALL PANEL FOR
HIGH SOUND INSULATION**



**We take pride in making
on-time, on-budget
deliveries to our clients**

Sehgal Doors is guided by five business goals that drive our vision and purpose:



CUSTOMER FOCUS



QUALITY



INNOVATION



CONSULTANCY



PROMPTNESS

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NEW ARRIVALS



AN OVERVIEW

Fire Rated Doors / Shutters - Introduction

Fire protection is a major concern for any building designers or architects. In that regard choosing the right fire protection products for your application is very necessary. We have a vast range of fire proof doors to cater to all private, public and industrial needs. Our fire Rated doors are designed to provide stability and integrity for up to two hours during a fire accident. These fire proof doors are constructed from high grade steel and tough components that do not wear and tear easily.

Growth is the standard norm at Sehgal Doors

The values and principles that guide Sehgal Doors were founded by our parent organization - Sehgal & Sehgal Industries in 1965, started as a Pressed Steel Frames & Furniture manufacturing and development centre with a handful of technicians and engineers - to quickly expand and position itself as a market leader.

Sehgal Doors was Set-up as a corresponding business entity in 2012, through our sustained innovation, service-orientation and commitment to deliver nothing but top-notch products. In just few years, we have established a strong network of sales, service engineers and satisfied customers.

Thus our customer retention rate is among the highest in the industry.

COMPANY

The reasons for our spectacular/rapid growth are not difficult to guess. As a family always been able to customize our service to our accommodate their needs. We partner with them, every step of the way in manufacturing doors that are unmatched in:

Elegance • Strength • Utility • Design

Creating new benchmarks, an exciting range of products the highest level of satisfaction in our team of engineers, designers and door craftsmen. The strength of our doors comes both from the design and the materials used in their fabrication. We design our products to withstand extremes related to:

- Environmental protection against wind, heat, cold, dust
- Security against forced, unauthorized access
- Highest level of safety
- Sound-control
- Fire resistance

Whatever be the nature of your business, Sehgal Doors has a solution to match every need and purpose

Team Sehgal Doors

A Very Strong Chain of Committed Employees

The driving force behind Sehgal Doors exceptional product quality and service is over handsome number of efficient & well-trained employees. Our nationwide Sales, service teams, our employees carry on our proud tradition of delivering 100% customer satisfaction anywhere within the country.

Sehgal Doors was founded with a strong commitment to quality, integrity and service. These principles founded by our principal company are the foundation of Sehgal Doors even today and living with these core values is as essential to our success today, as it was in the past.



Our senior management team comprises of professionals, who have sound training in designing, engineering, finance, management, sales and marketing and years of versatile experience in the door in the door manufacturing industry. Dealing hands-on with every aspect of the production process, they are also highly resourceful in their strategic thinking, sales & marketing efforts and 'people management' skills and have, through their sound expertise and years of experience, put Sehgal Doors on a high growth path. Result-driven and highly - motivated, our senior management team is highly quality conscious and keeps a watchful eye on the top and bottom-line growth of the company.

Balancing product aesthetics, with a tech-savvy outlook, they are committed to making Sehgal Doors a frontrunner in producing high-quality, on-time door systems of all kind, and within the client's specified Requirement.



IS STANDARD
AND
RS STANDARD



We invest in building long relationships with our clients

One of the biggest assets of Sehgal Doors is our end users' confidence and trust in our ability, skill and experience in delivering products that match their business needs. Thanks to this level of confidence, our projects architects and consultants encourage us to continue to assist our customers with individual and innovative door solutions of the highest quality. We are proud to be associated with India's quality-conscious industry verticals viz.

DIRECTOR'S DESK



Neeraj Sehgal

*Dear friends,
SEHGAL DOORS Since 2012 has grown into a multi-product company catering to the global construction industries and other fire sectors. The company's constant endeavour to improve quality and innovation has ensured market leadership since its inception. Our strength in production, quality, innovation, technological competence and distribution has allowed us to penetrate the entire country as taken us beyond India's boundaries also.*

Our vision & mission is to satisfy the customers through our uncompromised and innovative technologies & offering them a complete Door solution to all their needs.

With our Rock solid performance since last 07 successful years we have proved our self in this huge industry so far.

Here we strongly emphasize on the Domestic and Commercial need of our clients by providing them the Doors which suits best to their requirement.

Sehgal Doors is known for incorporating different styles of working and experimenting with our products in order to give a unique shape and style to our product line.

My brief introduction is as follow:



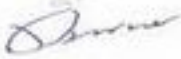
A renowned entrepreneur in the field of Fire & Safety Products manufacturing.

- 1) **Fire & Security Association of India** - FSAI Chairman - Membership where we aim towards making India more safe, secure and aware about the working, functioning of FSAI.
 - Interacting with all the 24 chapters and guiding my team to educate the people about the Fire and its consequences so that they can willingly join us and this chain could grow from state to state and there comes a point when everyone would be self-sufficient to take the necessary action at the starting point without getting panic, before Fire Brigade reaches the destination.
- 2) **Member of BIS-Committee of Is:3614.**
- 3) **Common Effluent Water Treatment Plant** - C.E.T.P General Secretary - with the signing power equivalent to that of Commissioner of Industries), where we treat contaminated water of complete Mayapuri for future use.

- We take a lead to represent all the CETP's of Delhi at national level.
 - Complete administration of plant, communicating and welcoming national and foreign Industries in order to exchange the latest technology and advance ways for water treatment and making water ready for re-use.
- 4) **Member of Labour Welfare Board** - Delhi Government.
- 5) **Laghu Udyog Bharati** - Vice President Delhi State. All India organisation in service of Small Scale Industries
- Interact on national level for technology transfer in order to attain knowledge from various departments and pass on the same to the Tiny Industries and help them in becoming a Medium scale industry.
- 6) **Mayapuri Industrial Welfare Association (M.I.W.A)** General Secretary where we represent our association towards various Government bodies and dept.
- Organizing various awareness camps and interaction meeting for our Industries with different govt. departments, police department etc.
 - Training JJ Cluster girls for self-defence and helped them in getting Jobs of Lady Bodyguard/bouncer at banquets empowering women.
 - Organized camp for approx. 500 labours in our unit and helped them in opening Zero Balance amount.
 - Offered our office space to Anganwadi to educate JJ Cluster children's free of cost.
 - Organized various dispensaries camps, offer free medicines to needy cluster people residing in near about areas, organized free cataract operation camp, distributed free eye sight glass etc.
 - Organised cricket match, football, volleyball matches between Mayapuri Police station and JJ Cluster children's to develop a link between the weaker and powerful section of the Industry in order to get peaceful and safe surrounding.
 - Coordinating with police department well in advance at the time of labour strikes and other crucial happening near about our industry.
- 7) **Apex Chamber of commerce & Industry of NCT Delhi Former Chairman** (Environment Pollution Control Committee).
- Representing Industrial issues and functioning in front of the state pollution control board.
- 8) **An active member of District Task Force** (Participating with 17 Govt. Department to raid for "FIRE SAFETY".
- Conducting fire training program at numerous commercial places & educating our industry about the need & requirement Fire NOC from the dept.
- 9) **Active member of District Level Committee**
- Helping & supporting our police department in maintaining law & order, offering them suggestion in operating a peaceful function around.
 - Our main motive is to satisfy our customers & prove our self as the "PIONEER" in any field we put our step forward in future.
 - Our performance will be guided by a clear and concise strategic statement for each business unit and by an ongoing Quest for Excellence within all operational and staff functions.
- 10) Contributing nation by educating JJ cluster children for their bright future.

Thank you for your attention and support. Welcome to visit our company and give us your valuable advices and suggestions.

REGISTRATION & CERTIFICATE

	
<h2>Certificate of Registration</h2>	
<p><i>This is to certify that compliance of Quality Management System of</i></p>	
<h3>SEHGAL DOORS</h3>	
<p>Office: 11/52, Subhash Nagar, New Delhi - 110 027.</p>	<p>Works: B-133, Mayapuri Industrial Area, Phase-I, New Delhi - 110 064.</p>
<p><i>Has been assessed and found to conform the requirements of</i></p>	
<h2>ISO 9001 : 2015</h2>	
<p><i>For the scope of activities :</i></p>	
<p>Manufacturer & Supplier of All type of Fire Rated Doors, Glazed Fire Doors, Fire Hose Box/Cabinet, HMPS Doors, Acoustic Metal Doors, Pressed Steel Door/Window/Ventilator Frames, Bullet Proof Doors, Blast Resistant Doors, Hatch Doors, Metal Sliding Doors, Supplier of Fire Rated Glass, Hardware & Panic Bars</p>	
Certificate No. : QMSI/1065	Issue Date : 20.08.2018
ANAS-BNR Accreditation No:10918	Valid Date : 19.08.2021
Surveillance Audit : 2nd Year 11.07.2019 <input type="checkbox"/>	For and on behalf of Bureau of International Quality Standard
3rd Year 11.07.2020 <input type="checkbox"/>	
<p>The certificate is valid only if the annual surveillance mark is present.</p>	
 <p>Quality Seal</p>	 Head of Certification
<p>Bureau of International Quality Standard Pte. Ltd</p>	
<p>Blk 464, Choa Chu Kang, Avenue -4, #02-29, Singapore-680 464, www.biqs.org</p>	
<p>Accredited by : ANAS - BNR (American National Accreditation Services - Bureau of Notified Registrar) 2711 Centerville Road, Suite 400, Wilmington, Delaware, 19808 (U.S.A.)</p>	
<p><small>The Registrar does not assume the quality of goods under the firm's production</small></p>	



CERTIFICATE

Certificate of Compliance

We confirm that the technical documentation for the below mentioned products according to the Construction Product Directive 89/106/EEC (CPD/CPR)

Products:

Metal Fire Doors, Wooden Fire Door and Pressed Steel Door Frames

Manufactured by company:

Sehgal Doors

Regd Office: 11/52, 3rd Floor, Subhash Nagar, New Delhi- 110027, India

Factory: B- 133, Phase- 1, Mayapuri, New Delhi- 110064, India

is complying to the applicable essential requirements of Construction Product Directive 89/106/EEC (CPD/CPR)

The Regal Register (UK) Ltd. has conducted with successful results the review of the manufacturer's technical documentation & Test reports of the products and certified according to above mentioned Directive.

This certificate is issued under the following conditions:

1. It applies only to the above referenced set of products mentioned above. The manufacturer is obligated to assure that all products of the respective model conform to the type assessed by this certificate.
2. The Certificate validity is conditioned by the positive results of the surveillance audits.
3. The Certificate remains valid until the manufacturing conditions, the quality systems or relevant legislation are changed but until the 09th July 2020.
4. After fulfilling the relevant EU legislation requirements, the manufacturer shall affix to each product of the above referenced models, CE Marking according to the following example.

Certificate No. : CE-2006
 Date of registration : 10th July 2017
 Date of this certificate : 10th July 2017
 Date of Expiry : 09th July 2020



Authorized Signatory
 Regal Register (UK) Ltd.

Statement:

This certificate of conformity based on the evaluation of a sample of the above mentioned products. It does not imply an assessment of the mass production of the product. The certification body should be informed (division of technical file) for any modification or alterations made to the abovementioned product type(s). The manufacturer is responsible for the product and ensuring that all manufactured products are in compliance with the specifications declared in the technical construction file.

Further clarifications regarding the scope of this certificate and the applicability of the management system requirements may be obtained by contacting the organization. Check www.regalregister.co.uk for current status of the certificate. Whilst all due care and skill was exercised in carrying out this assessment, RRUK accepts responsibility only for proven gross negligence. This certificate remains property of RRUK, to whom it must be returned upon request.

भारत सरकार Govt. of India सूक्ष्म, लघु और मध्यम उद्यम मंत्रालय MINISTRY OF MICRO, SMALL & MEDIUM ENTERPRISES		MSME सूक्ष्म, लघु और मध्यम उद्यम MICRO, SMALL & MEDIUM ENTERPRISES		
उद्योग आधार MSME		Udyog Aadhaar		
B	Type of Enterprise	Micro	Small	Medium
	Manufacturing	A	B	C
	Services	D	E	F
	UAM No.	DL118000160		
Udyog Aadhaar Registration Certificate				
Udyog Aadhaar Number	DL118000160			
Name of Enterprise	SENIAL DOORS			
Location of Plant Details	D-103, MIDRAPURI PHASE-I, NEW DELHI-110041			
Official Address of Enterprise	District	WEST	State	DELHI
	Mobile No:	989 1139441	Email:	neera@senialdoorshygal.com
Date of commencement	06/03/2012			
Major Activity	MANUFACTURING			
Enterprise Type	Small			
Previous Registration details if any	-			
National Industry Classification Code	-			
INC	INC 3 Digit	INC 4 Digit	INC 6 Digit Code	Activity Type
1	25 Manufacture of fabricated metal products, except machinery and equipment	2511 Manufacture of structural metal products	25111 Manufacture of doors, windows and their frames, shutters and rolling shutters, gates and similar articles used on buildings	Manufacturing
Acknowledgement	Date of Filing	27/10/2015	Date of Printing	27/09/2015
Disclaimer: This is computer generated statement, no signature required. Printed from: udyogaadhaar.gov.in				

MSME Policy:

We come under the reserve policy of MSME.

NATIONAL BUILDING CODE OF INDIA

It specifies the demarcation of fire zones, restrictions on construction of buildings in each firezone, classification of buildings based on occupancy, types of building construction according to fire resistance of the structural and non-structural components and other restrictions and requirements necessary to minimize danger to life from fire, smoke, fumes or panic before the building can be evacuated. The code recognizes that safety of life is more than a matter of means of exits and accordingly deals with various matters which are considered essential to the safety of life.

LIST OF STANDARDS

(7) IS 3614 (PART 1) : 1966 - Specification for fire check doors: Part 1 Plate, metal covered and rolling type

2.12 Fire Door - A fire-resistive door approved for openings in fire separation.

2. TERMINOLOGY

For the purpose of this standard, the following definition shall apply.

2.1 Single fire - Check door one door shutter construction for fitting on one side to an opening.

2.2 Double fire - Check door - two single fire - check door shutters as defined in 2.1 for fitting one on each to an opening.

3. TYPES

3.1 FIRE - Check door shall be of the following types.

A. Steel plate doors, B. Metal covered doors, and C. Rolling steel shutters.

4. SIZES

4.1 Steel plate doors and metal covered doors - the size of plate doors and metal covered doors shall suit the size of opening which shall neither exceed 5 m² in area nor 2 - 10 m in width or 2.75 m in height.

GLASS & VENTILATORS

0-2.3.2 - Where monitor type vents are installed, wired glass or metal panels shall be used only if the sash is arranged to open automatically.

0-2.3.3 - The use of plain thin glass for venting shall be avoided on account of its unpredictable behavior during fire.

WIRED GLASS

3.4.16.2 - Wired Glass shall comply with the following requirements:

a) **Wired Glass** - The wired glass shall be of minimum half-an-hour fire resistance rating.

b) **Sashes and Frames** - The sashes or frames or both shall be entirely of iron or other suitable metal such as stainless steel, securely bolted or keyed into the wall, except in the case of panels in internal doors.

1 SCOPE

1.1 This Code (Part 4) covers the requirements for fire prevention, life safety in relation to fire and fire protection of buildings. This Code (Part 4) specifies occupancy-wise classification, constitutional aspects, egress requirements and protection features that are necessary to minimize danger to life and property from fire.

1.2 The provisions of this Part are applicable to,

A. all high rise buildings;

B special buildings, those are,

1. hotel, educational, institutional, business, mercantile, industrial, storage, hazardous and mixed occupancies, where any of these buildings have floor area more than 500 m² on anyone or more floors;
2. Educational buildings having height 9 m and above;
3. Institutional buildings having height 9 m and above;
4. All assembly buildings;
5. Buildings, having area more than 300 m² of incidental assembly occupancy on any floor; and
6. Buildings with two basements or more, or with one basement of area more than 500m²

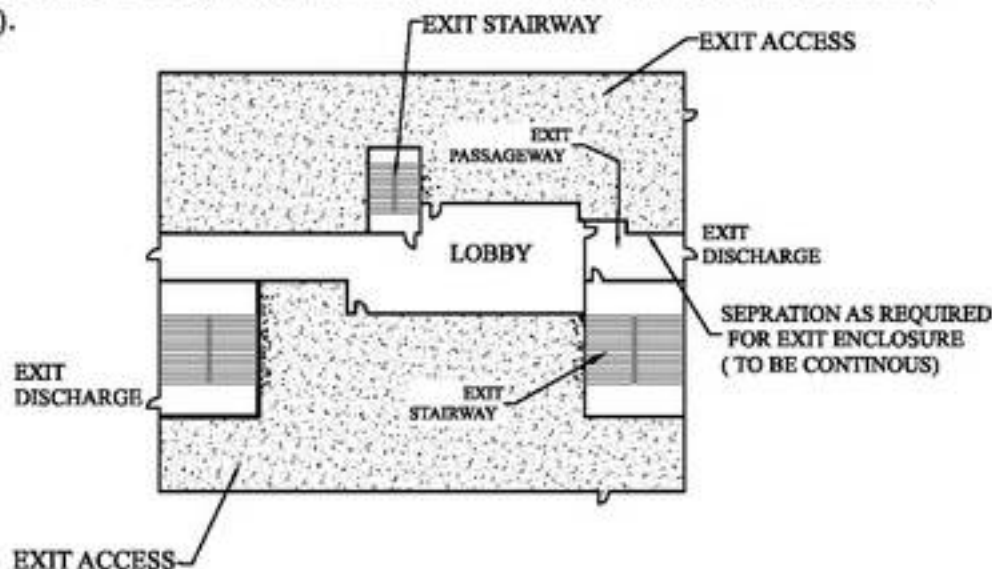
Unless otherwise mentioned specifically in the provisions.

2 TERMINOLOGIES

2.7 Combustible Material - A material which either burns itself or adds heat to a fire, when tested for non-combustibility in accordance with accepted standard [4(1)].

2.16 Exit - That unobstructed component of means of egress which is between the exit access and the exit discharge or public way. Exit components include exterior exit doors at the level of exit discharge, interior exit stairways, exit passageways, exterior exit stairways and exterior exit ramps (see Fig. 1).

2.17 Exit Access - That portion of a means of egress that leads to an exit (for example, doorways, staircase lobby, ramps, Veranda, corridor or passageway leading to an exit) (see Fig.).



2.22 Fire Door and Fire Door Assembly - Any combination of fire door, frame, hardware and other accessories that together provide a specific fire resistant rating to the opening in terms of its stability, integrity and insulation properties, when installed in the openings in fire separation walls. Fire door-is a component of fire door assembly.

NOTES

1 Wherever reference has been made to fire door or fire check door in this Part, the same shall be construed as fire door assembly.

2 Fire doors in exits shall have fire rating as required in this. Part to meet the requirement of Integrity and stability; and the insulation criteria shall be 20 min.

3 Fire doors in exits shall be provided with intumescent seal.

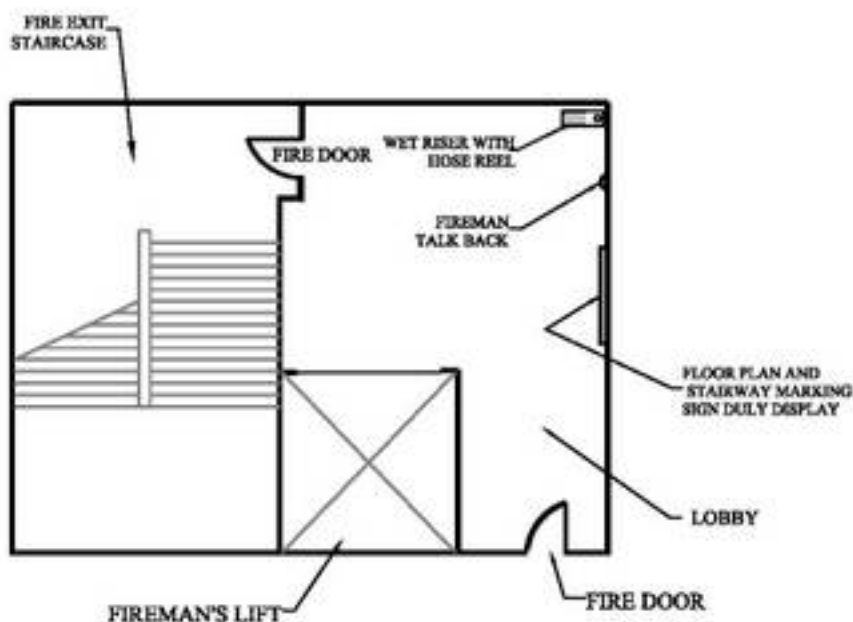
4 Fire doors in exits shall not be allowed to be on hold open position and kept closed and to close by 'door closure - spring mechanism'.

5. Fire curtains shall not be allowed as fire exits. If so provided for compartmentation, independent fire door shall be provided meeting the requirement for fire door in exits as above (of the width as required) within the prescribed travel distance requirement.

6. Where such lobbies and staircase in the firefighting shaft are naturally ventilated / cross-ventilated, the shaft may not be enclosed and fire door need not be provided

2.23 Fire Exit- A way out leading from exit access with or without panic bar provided on the door.

2.24 Firefighting Shaft (Fire Tower) - An enclosed shaft having protected area of 120 min fire resistance rating comprising protected lobby, staircase and fireman's lift, connected directly to exit discharge or through exit passageway with 120 min fire resistant wall at the level of exit discharge to exit discharge. The firefighting shaft shall be equipped with 120 min fire doors. (see Fig. 2 for a typical firefighting shaft)



2.28 Fire Resistance - Fire resistance is a property of an element of building construction and is the measure of its ability to satisfy for a stated period, some or all of the following criteria:

a) Load bearing capacity (Stability) (R) - The ability of a load bearing element to withstand fire exposure without any loss of structural stability.

b) Integrity (E) - Resistance to penetration of flame and 'hot' gases.

2.30 Fire Resistant Wall- Fire resistance rated wall, having opening(s) with specified fire resistant rating, which restricts the spread of fire from one part of a building to another part of the same building.

2.37 Fire Exit Hardware - A door-latching assembly incorporating an actuating member or panic bar that releases the latch bolt upon the application of a force in the direction of egress travel, provided on exits.

2.38 High Rise Building - A building 15m or above in height (irrespective of its occupancy).

2.39 Horizontal Exit- A horizontal exit shall be through a fire door of 120 min rating in a fire resistant wall. Horizontal exit require separation with the refuge area or adjoining compartment through 120 min fire barrier.

2.43 METRO STATION

2.43.1 Concourse - Intermediate level(s) or area(s) connecting a station platform(s) to a public way through stairs, escalators or corridors.

2.43.2 Crush Train Load - The number of passengers inside a train when it is filled to maximum capacity permissible by rolling stock design.

2.43.3 Entraining Load - The number of passengers boarding a train at a platform.

2.43.4 Headway - The interval of time between the arrivals of consecutive trains at a platform in a station.

2.43.5 Mass Rapid Transit - Any station building or part thereof, permanent or temporary, through which people transit for the duration of time required to enter the building and board the train to depart the station platform or to alight from the train and depart from the station building.

2.43.6 Non-transit Occupancy- Occupancy not under the control of the system operating authority.

2.43.7 Point of Safety- One of the following:

- (a) An enclosed exit that leads to a public way or safe location outside the station, train way, or vehicle,
- (b) An at grade point beyond the vehicle, enclosing stations, or train way,
- (c) A point on open track beyond the open or enclosed station or enclosed train-way, and
- (d) Any other location approved by the Authorities concerned.

2.43.8 Station - A place designated for the purpose of loading and unloading passengers, including service area and ancillary spaces associated with the same structure.

✓ 2.43.8.1 Composite station

✓ 2.43.8.2 Enclosed station

✓ 2.43.8.3 Open station

✓ 2.43.9 Station Platform

2.51 Public Way - A Street, alley, or other similar parcel of land essentially open to the outside air, dedicated, or otherwise permanently appropriated to the public for public Use and having a clear width and height of not less than 3 m.

3.1 Classification of Buildings Based upon Occupancy

All buildings, whether existing or hereafter erected shall be classified according to use or the character of occupancy in one of the following groups:



GROUP	TYPE	LOCATION
GROUP A	Residential Buildings	Lodging and rooming houses, One or two family private dwellings, Dormitories, Apartment houses Hotels, Starred hotels
GROUP B	Educational Buildings	Schools up to senior secondary level, All others/training institutions
GROUP C	Institutional Buildings	Hospitals and sanatoria, Custodial institutions, Penal and mental institution
GROUP D	Assembly Buildings	theatrical or motion picture or any other stage and fixed seats for over 1000 persons & Upto 1000 persons, Buildings without a permanent stage having accommodation for less than 300 or more than 300 persons, temporary structures designed for assembly of people, Buildings having mixed occupancies of assembly and mercantile (for example, shopping malls providing facilities such as shopping, cinema theatres, multiplexes and restaurants/food courts), Underground and elevated mass rapid transit system
GROUP E	Business Buildings	Offices, banks, professional establishments, like offices of architects, engineers, doctors, lawyers, post offices and police stations, Laboratories, outpatient clinics, research establishments, libraries and test houses, Electronic data processing centers) computer installations, information technology parks and call centers, Telephone exchanges, Broadcasting stations, T.V. stations and air traffic control towers.
GROUP F	Mercantile Buildings	Shops, stores, departmental stores, markets (any with covered area up to 500 m-), Shops, stores, departmental stores, markets (any with covered area more than 500 m-), Underground shopping centers

GROUP	TYPE	LOCATION
GROUP G	Industrial Buildings	Buildings used for low hazard industries, moderate hazard industries, high hazard industries.
GROUP H	Storage Buildings	Warehouses, cold storages, freight depots, transit sheds, storehouses, truck and marine terminals, garages, hangars, grain elevators, barns and stables.
GROUP J	Hazardous Buildings	storage, under pressure of more than 0.1 N/mm ² and in quantities exceeding 70 111 ³ of acetylene, hydrogen, illuminating and natural gases, ammonia, chlorine, phosgene, Sulphur dioxide, carbon dioxide, methyl oxide and all gases subject to explosion, fume or toxic hazard, cryogenic gases, etc.; storage and handling of hazardous and highly flammable liquids, liquefiable gases like LPG, rocket propellants, etc.; explosive materials (other than liquids); manufacture of artificial flowers, synthetic leather, ammunition, explosives and fireworks.

3.4.5 Openings in Fire Resistant Walls and Floors

3.4.5.2 For Types I to 3 constructions, a doorway or. Opening in a fire resistant wall on any floor shall be limited to 5.6 m² in area with a maximum height/width. 01'2.75 m. Every wall opening shall be protected with fire-resisting doors, having the fire rating of not less than 120 min.

3.4.5.4 Service ducts and shafts

The inspection door for electrical shafts/duets shall be not less than 120 min.

For plumbing shafts in the core of the building, with shaft door opening inside the building, the shafts shall have inspection doors having fire resistance rating not less than 30 min.

3.4.6.3 Substation/Transformers

The MV panel room shall be provided with fire resistant walls and doors of fire resistance of not less than 120 min.

3.4.12 Fire Command Centre (FCC)

Fire command center shall be constructed with 120 min rating walls with a fire door.

4.2 General Exit Requirements

4.2.7 For non-naturally ventilated areas, fire doors with 120 min fire resistance rating shall be provided and particularly at the entrance to lift lobby and stair well where a 'funnel or flue effect' may be created, inducing an upward spread of fire, to prevent spread of fire and smoke.

4.4.2.4.3 Staircases

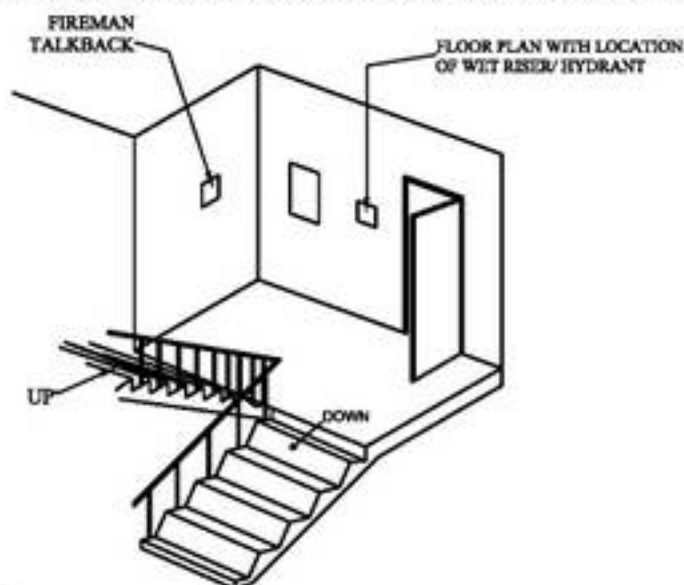
4.4.2.4.3.2 Internal staircases

h) The design of staircase shall also take into account the following:

2) Access to exit staircase shall be through a fire door of 11 minimum 120 min fire resistance

rating.

9) The floor indication board, indicating the location/designated number of staircase, respective floor number and direction to exit discharge shall be placed inside the staircase, on the wall nearest to the fire door. It shall have size not less than 300 mm x 200 mm (see Fig.).



4.6 Smoke Control

4.6.1 Smoke Exhaust and Pressurization of Areas above Ground

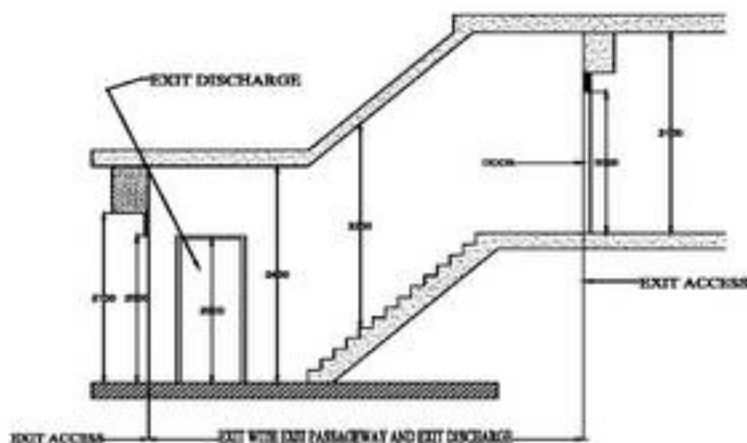
Exit access corridors of guest rooms and indoor patient department/areas having patients lacking self-preservation and for sleeping accommodations such as apartments, custodial, penal and mental institutions, etc., shall be provided with 60 min fire resistant wall and 20 min self-closing fire doors.

5.1.2.2 Firefighting pump house

The requirements shall be as given below:

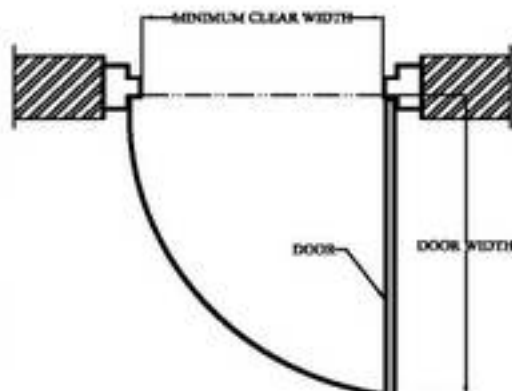
c) Pump house shall be separated by fire walls all around and doors shall be protected by fire doors (120 min rating).

4.2.11 unless otherwise specified, all the exits and exit passageways to exit discharge shall have a clear ceiling height of at least 2.4 m. However, the height of exit door shall be at least 2.0 m (see Fig.).



4.4:2.4.1 Doorways

- b) No exit doorway shall be less than 1000 mm in width except assembly buildings, where door width shall be not less than 2000 mm (see Fig.). Doorways shall be not less than 2000mm in height.
- c) Exit doorways shall be operable from the side which they serve, without the use of a key.
- f) All fire rated doors and assembly shall be provided with certificate and labels prominently indicating the manufacturer's identification, door details covering door type, serial/batch number, month and year of manufacture, fire resistance rating, etc. The doors and assembly shall be certified with all prescribed hardware such as hinges, locks, panic bars, door closer, and door viewers.



6.1.2 Additional Precautions

Stores, engineering workshop-, areas of high hazard, etc. used for storage of substantial amount of flammable liquids shall be of 120 min fire resistance rating wall. Such areas shall be provided with fire doors,

6.1.1.4 Subdivision A-5

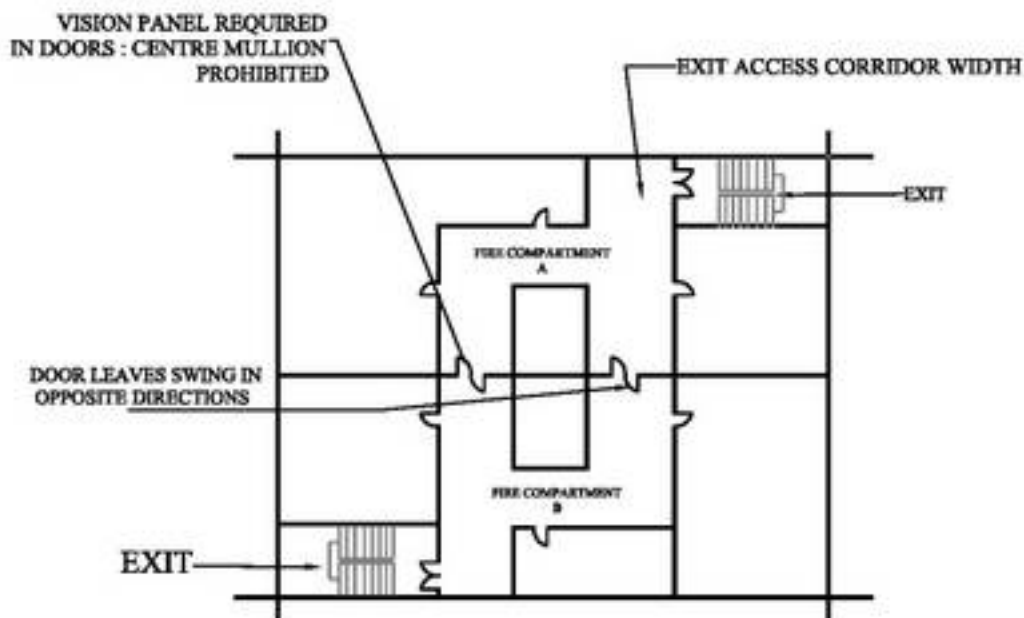
- a) Panic bars shall be provided in the fire exits. Panic bars shall be located at a height between 865 mm and 1220 mm from the floor level.

6.1.2 Additional Precautions

- d) Stores, engineering workshop-, areas of high hazard, etc. used for storage of substantial amount of flammable liquids shall be of 120 min fire resistance rating wall. Such areas shall be provided with fire doors, to be kept closed and shall be posted with a sign of each side 0'1' the door in 25 mm high block letters stating - 'FIREDOOR --KEEP CLOSED'.

6.2.2 Life Safety

- a) Every room with a capacity of over 45 persons in area shall have at least two doorways. Exit doors shall be operated by panic bars except that doors leading from classrooms directly to the outside may be equipped with the same type of lock as is used on classroom doors leading to corridor, with no provision whatsoever for locking against egress from the classroom.
- d) Doors in fire resistant walls shall be so installed that these may normally be kept in open position, but will close automatically. Corridor door openings shall be not less than 2.0 m in width of double swing double leaf type door. A coordinator shall be provided as above, for closing of double leaf in case of emergency.



g) For hospitals (Subdivision C-1), the following shall also be complied with:

- 9) Minimum width of door of single or double occupancy patient room shall be 1.25 m while for the wards for 3 to 5 patient beds shall be 1.50 m, to permit movement of patients. The minimum width of door for wards for more than 5 patient beds and for areas necessarily requiring patient evacuation on bed (such as ICU, recovery units, delivery rooms, etc.), shall have door width of 2.0 m. The width of 2.0 m may be reduced to minimum of 1.5 m where two such doors are provided in such areas.
- 12) Exit access corridors from a compartment to another compartment shall be divided at the compartment intersection by a fire door of 120 min fire rating in the fire compartment wall.

6.2 Industrial Buildings (Group G)

- g) Doors and window openings in external walls within 3 m of the fire separating walls shall be protected by fire doors having a rating of at least 60 min and window openings may be protected by fire resistant glass assembly having same fire rating.
- m) Moderate and high hazard areas in industries to have two fire doors each having 180 min fire resistance rating.

6.7 Industrial Buildings (Group G)

6.7.1 Fire Prevention

6.7.1.1 Fire separating walls, fire separating floors and fire partitions

- g) Doors and window openings in external walls within 3 m of the fire separating walls shall be protected by fire doors having a rating of at least 60 min and window openings may be protected by fire resistant glass assembly having same fire rating.

ANNEXE (Clauses 5. 1.4 and 6)

ADDUXONAL REQUIREMENTS FOR HIGH RISE BUILDINGS

E-4 HORIZONTAL EXITS/REFUGIA AREA

A horizontal exit shall be through a fire door of 120 min rating in a fire resistant wall.

Requirements of horizontal exits are as under:

- Doors in horizontal exits shall be openable at all times from both sides.
- All doors shall swing in the direction of exit travel. For horizontal exits, if a double leaf door is used, the right hand door leaf shall swing in the direction of exit travel

G-3 FIRE SEPARATION REQUIREMENTS

- Food serving areas shall be fire separated from the kitchens/cooking areas by fire rated elements having a resistance of at least 60 min. Doors shall have fire resistance of 60 min rating and fitted with automatic self-closing device.

J-6.5 Fire Doors

Fire doors shall comply with the following requirements:

- a) Fire doors shall be constructed of noncombustible material having appropriate fire resistance, and two fire doors may be fitted in an opening if each door by itself is capable of closing the opening and the two doors together achieve the required level of fire resistance.
- b) All fire doors shall be fitted with an automatic self-closing device, of same fire rating as of the door, which is capable of closing the door from any angle and against any latch fitted to the door.
- c) Any fire door fitted within an opening which is provided as a means of escape shall be capable of being opened manually, not be held open by any means other than by an electromagnetic or electro-mechanical device which can be activated by the presence of smoke and/or the fire alarm system, provided that this shall not apply in the case of fire doors opening into pressurized exit staircases.

K-4 EMERGENCY EGRESS

K-4.1 Location of Egress Routes

K-4.1.5 where cross passageways are utilized in-lieu of emergency exit stairways, the following requirements shall apply:

- d) Cross-passageways shall be separated from each train way with separate self-closing fire or assemblies having a fire protection rating of minimum 90 min.

K-4.2 Size of Egress Routes

K-4.2.3 If double leaf doors wider than 1 200 mm are provided in egress routes serving train ways, then size of active leaf shall not be less than 810 mm

M-2.31 types of Vents

M-2.3.2 Where monitor type vent are installed, wire glass or metal panels shall be used only if the sash is arranged to open automatically.

PRESSED STEEL DOOR FRAMES

We are engaged in the Manufacture and Supply of a superior range of Steel Door Frames that is constructed from pressed steel sections made on computerized numeric controlled brake press to provide better surface finish, consistent quality, dimensional, accuracy and high strength. This range of Steel Door Frames is far better compared to the traditional wooden door frames and puts a check to the level of forest degradation.

We offer these attractive Steel Door Frames to architects, developers and builders that are seeking suitable cost efficient alternatives to be used in the construction process.

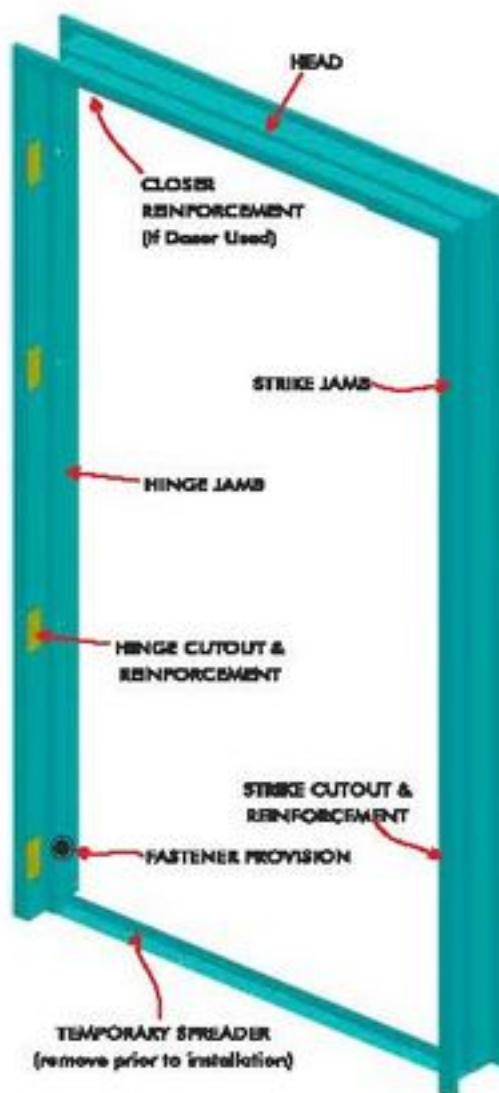
Nowadays windows and door frames are mostly used in commercial and offices complex, high class buildings to give architectural view to enhance the beauty and smooth working. These frames give beautiful looks less maintenance cost and are free from termite attack, rusting problems. With the scarcity & high price of wood, these door and window frames are used.

S.No.	Item	Remark
1.	What we Give?	Govt. Approved Pressed steel door/window frames
2.	Standard	As per IS: 4351
3.	Type of Sheet	Mild Steel or Galvanised Iron Sheet.
4.	Gauge available	14 – 18 G
5.	Pattary/Rebate	Single/Double/Tripplie Rebate
6.	Finish	Red Zinc Primer/ Paint/Powder coated
7.	Hinges	Screwed, welded or slot cutting
8.	Fitting	All types and customised



SPECIFICATION

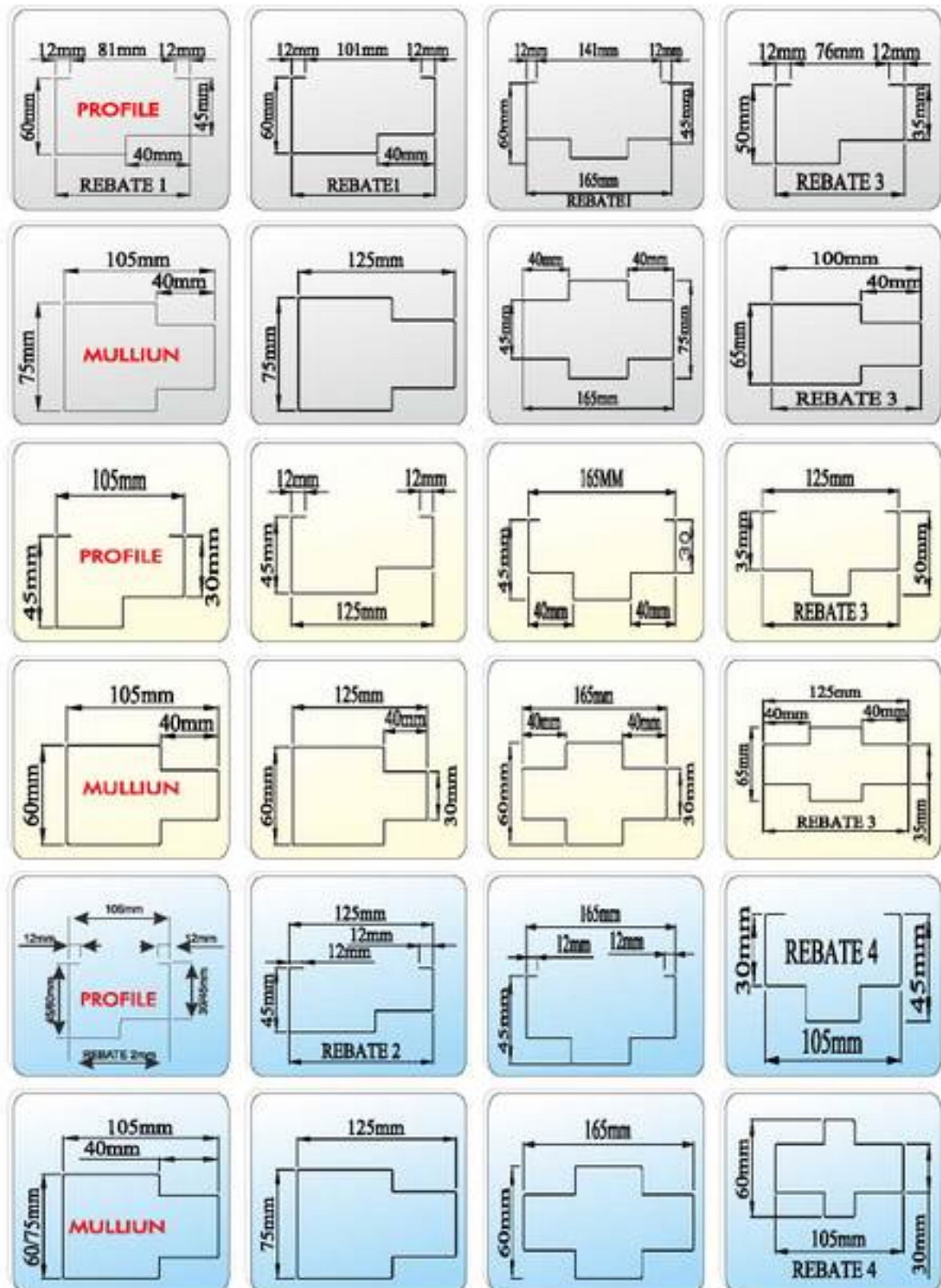
1. Pressed steel frame profiles are as per INDIAN STANDARD IS: 4351
2. Encouraging door frames made with rust-resistant 1.25/1.6 mm thick galvanized steel sheet
3. Finished with red oxide zinc chromate primer
4. Rubber buffers to absorb metallic sound
5. Mortise lock provision
6. Mortar guards
7. Hinges are mortised in a cut out on a 4mm MS Plate
8. Standard hot rolled tube section with 62-mm face for window shutters
9. Safety bars of 10 mm square bar at approx.100-mmcentres finely penetrated after punching, so no visible welding marks
10. Saw butt welded and ground smooth
11. Bolted connections to be fitted in field



SALIENT FEATURES

1. Do not twist or warp
2. Remain perfectly true and square
3. Eco-friendly
4. Economical
5. Structurally Load Bearing
6. No fear of termites
7. Rust resistant
8. Unmatched durability
9. Beauty In simplicity
10. Excellent quality
11. Compatible to any type of wooden or metal doors

DIFFERENT PROFILE OF PRESSED STEEL DOOR FRAMES



Rebate 1 : 45 mm x 15 mm Rebate 2 : 35 mm x 15 mm Rebate 3 : 42 mm x 15 mm Rebate 4 : 25 mm x 15 mm

HOLLOW METAL PRESSED STEEL DOORS

Hollow metal frames are made from 18 and 16 gauge cold rolled or galvanized steel. These are designed in different forms like knocked-down, welded or cut-and notch and styles include double egress, communicating, single rabbet, equal rabbet, and cased opening frames. The style of frame is chosen based on the type of door that is hung. Hollow metal frames have sharp, crisp corners that give a tidy appearance. The frames are painted with anti-rust primer to make them weather proof. These frames are primarily used in commercial and institutional buildings.

Types of Interior Doors



Flush Door



Panel Door



Louver Doors:



Sliding Doors

Flush Doors: A flush door is a completely smooth door which is typically a moulded panel applied over a metal frame.

Panel Doors: Raised Panel doors can have either horizontal or vertical panels and are made up of three parts: panels, stiles and rails. True raised panel doors have panels that float within the frame of the door, and are not glued to allow for expansion and contraction of the door panels.

The Door Stiles are the two long vertical pieces on each side of the door. The rails are the horizontal and/or vertical pieces in the door that surround the panels and attach to the stiles. One side of the door is attached to the door jamb with hinges.

Louver Doors: A louver door has metal fins (often called slats or louvers) which permit open ventilation while preserving privacy and preventing the passage of light to the interior. Being relatively weak structures, they are most commonly used for wardrobes and drying rooms, where good ventilation is a priority.

Pocket and Sliding Doors: A pocket door is a door that slides in and out of a space hidden within the wall. Pocket doors come either as singles, which slide open and shut from either the left or the right, or double pocket doors, which slide together and meet in the middle from both the right and left sides. The primary reason for installing sliding pocket doors is to save space. These doors can be made of a variety of panels and coordinated with your existing door style.

Hardware

- Door closer
- Lock
- Handle
- Knockers
- Hinges
- Lock cylinder
- Dead bolts

Advantages of Steel Doors and Windows

- Since steel is a strong material, the sightlines on steel windows are quite thin; this means that you get clear views from your windows.
- Steel doors and windows don't need much maintenance
- They aren't vulnerable to cracking, bowing and rust
- Steel doors can reduce your heating and cooling costs since they come with insulating properties
- Steel doors come in various degrees of fire-resistance
- Steel doors and windows can be repaired just as easily as wooden ones and don't need to be replaced as often

WHAT IS FIRE DOOR?

Buildings are compartmentalized to delay the spread of fire from one area to another. These compartments are usually linked by fire doors to allow the flow of traffic around the building. Fire doors have two important functions in a fire; when closed they form a barrier to stop the spread of fire and when opened they provide a means of escape.

A well designed Metal Fire door will delay the spread of fire and smoke without causing too much hindrance to the movement of people and goods.

Every fire door is therefore required to act as a barrier to the passage of smoke and fire to varying degrees depending upon its location in a building and the fire hazards associated with that building.

- A fire door required to provide resistance to the passage of a well developed fire must be fitted with intumescent seals. These seals remain dormant under normal conditions but expand greatly in the heat of a fire to close the gap between the door and its frame.
- As smoke spread is an even greater threat to life and property than flames, particularly in the early stages of a fire, fire doors should also be fitted with a 'cold smoke' seal to prevent the ingress of smoke around the door edges. Combined smoke and intumescent seals protect from all aspects of fire in a single unit.

WHERE ARE FIRE DOORS NEEDED

As indicated above, there are two main requirements of fire doors, which prescribe their location in a building. They work together in an integrated system in order to preserve life and property through.

I : Compartmentalizing a fire.

II : Creating/protecting an escape route through the building.

The escape route in a fire situation is frequently the route of everyday traffic; hence the fire doors must not obstruct the normal functioning of a building. As earlier noted, door retainers can be used to keep them legally open, although the doors should be regularly closed as part of their routine maintenance in order to prevent warping or other malfunctions that could compromise their integrity in a fire situation.

In serving to compartmentalize a building and/or preserve an escape route, the function of a fire door, when closed, is to provide resistance to smoke/fire for a minimum specified length of time. It is possible to have steel fire doors offering up to 2 hours resistance but this level of protection is usually only a requirement in specific, high-risk environments. Thirty minutes should, in most situations, allow for the evacuation of premises and response of the emergency fire services.

FAQ - FREQUENTLY ASKED QUESTION?



DO I NEED SPECIAL DOOR FRAMES FOR FIRE DOORS?

The practice of 'knocking up' a door frame on site or in a workshop, hanging a door and believing that the result constituted a valid fire door installation was never correct.

Door frames should be purchased from the door manufacturer, or from a company licensed to manufacture them.

DO I FIT SEALS INTO THE FRAME OR DOOR ?

ALL fire doors **MUST** be fitted with the appropriate seals. Where possible, the seals should be fitted to the frame.

Intumescent seals **MUST** be used as recommended by the door leaf manufacturer.

CAN I USE AN EXISTING DOOR FRAME OR A NEW ONE ?

There may be circumstances where fitting new frames is not possible or practicable.

The thickness of the existing frame should be checked to ensure it meets the requirements of the installation instructions, and guidance sought if undersize.

In these situations, it may be more practicable to fit intumescent seals into the door edge* if grooving the frame is difficult.

WHY GAPS ARE REQUIRED AROUND A DOOR AND IT'S FRAME ?

The gap between the door and the frame is extremely important and must be suitable for the intumescent seal fitted.

In general the gap should not exceed 3mm along the 2 long edges and across top of the door leaf - to facilitate checking of the gap on site.

The gap at the bottom of the door is usually around 10mm* for non-smoke conditions but 3mm when smoke seals are required.

WHAT IS THE MINIMUM WIDTH REQUIREMENT & OF A STAIRCASE IN INDUSTRIAL BUILDING?

As per the clause 6.7.3.1 of NBC Part - IV minimum two exits are required for every floor or section including basement used for industrial purpose or uses incidental thereto. And the minimum width of staircase shall be 1.5 meter in accordance with clause 4.9.6 of NBC Part-IV.

The arrangement of staircases shall be in accordance with clause 4.5 of NBC Part-IV.

WHAT IS THE RECOMMENDED RATING OF THE FIRE CHECK DOOR FOR INDUSTRIAL BUILDING?

2 hours fire rated for type 2 construction.

WHAT IS THE MINIMUM WIDTH & HEIGHT OF A DOOR ?

No exit doorway shall be less than 1000 mm in width except assembly building where door width shall not be less than 2000 mm. Doorways shall not be less than 2000 mm. in height.

WHY I SHOULD SELECT STEEL DOOR FRAMES AND SHUTTERS OVER WOODEN ONE?

Good quality wood is not available in our country. Apart from that, cutting of wood is now

banned as it leads to deforestation and ultimately we lose our ecological balance. Steel is the safest and easily available material in our country. Steel door frames/shutters can be fabricated in any size and finish. Even, we can offer you steel door frames / shutters in wood finish also.

IS IT EASY TO FIX STEEL DOOR FRAMES / SHUTTERS?

Yes. Any technician can install steel door frames / shutters with holdfast else we provide them with fastener provision as well.

CAN I FIX ANY KIND OF HANDLES AND LOCKING SYSTEM ON STEEL DOOR FRAMES AND SHUTTERS?

Yes. Any kind of lock and handles can be fixed on steel door frames and shutters. We are also flexible in providing hardware provision as per the Hardware shared by the client.

IS IT MAINTENANCE FREE?

Yes. Steel door frames/shutters are totally maintenance free. They can withstand in any weather condition compared to Wooden Doors.

CAN WE CHANGE THE ORIGINAL FINISH OF FRAMES?

Yes. You can repaint/spray finish the frames when needed.

CAN YOU GIVE WOOD FINISH TO DOOR FRAMES/SHUTTERS?

Yes. We can give wood finish to door frames/shutters.

WHAT IS THE SPECIALTY OF SEHGAL DOORS PRODUCTS?

Being machine made (on CNC Machines & Turret) quality and cutting of products is far superior compared to any other product.

CAN WE USE YOUR PRODUCTS IN GREEN BUILDING?

Yes. Our products are suitable for green building.

DOORS WIDTH AND MEN'S ESCAPE

The following guide can be used to determine the general capacities of escape routes Based on clear opening of door width :-

S No.	Door width in mm	Persons of normal risk
1	750	60
2	850	110
3	950	160
4	1050	220

Note :- Add 5mm per person on door clear opening width 1050mm

FIRE DOOR INFILL

CERAMIC WOOL :

Paper with its unique properties enhances the structural integrity of the door with minimal additional weight to the door. The final finish on the door is predominantly dependent on the quality of the honeycomb kraft and the glue which is used to get the flat surface. This infill material invariably has high crushing strength leading to impact resistance. The quality and consistent flat surface achieved because of the infill material is exceptional to the material and design of the doors.



CERAMIC WOOL / ROCK WOOL

Steel stiffened doors :

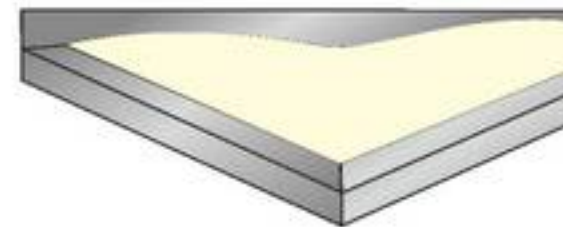
Used for exterior applications, these doors are known for their rigidity and are available in varying strength and quality while the thickness of the stiffeners can vary. We offer stiffeners of 20 gauge galvanized steel. Spacing between stiffeners may vary from 4" to 6". They are welded to each other at the top and bottom and to the inside door skin. The cavities are filled with special core. For temperature rise doors, all cavities are filled with mineral rock wool.



STEEL STIFFENED

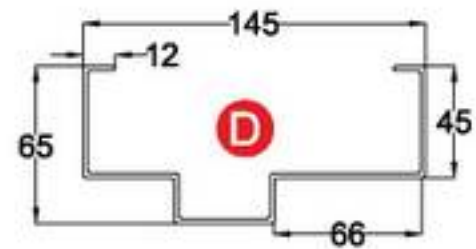
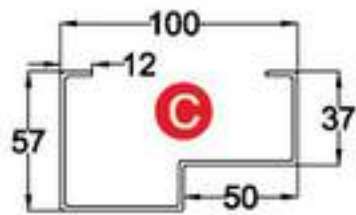
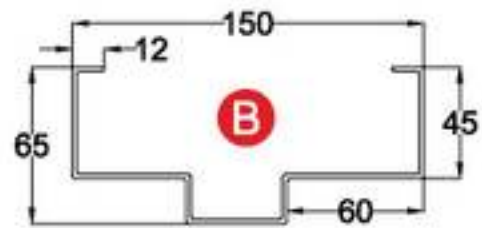
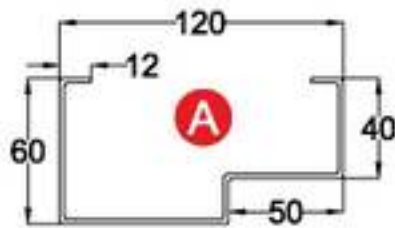
Polyurethane foam:

It is used as an insulator and provides complete surface support, impact resistance and exceptional thermal resistance. It offers the lowest "U" value (approx. 0.09) and the highest "R" factor (approx. 11.1). This core has certain limitations on application and fire rating of the door. Not recommended for use on BS / IS fire Doors.

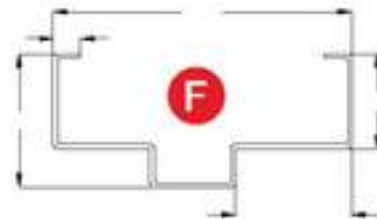
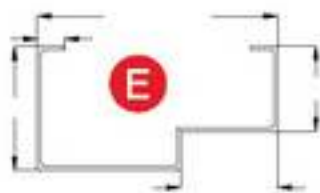


POLYURETHANE FOAM

Standard Profiles



Customize Profile



Standard Sizes

TYPE	WIDTH	HEIGHT
SINGLE LEAF DOOR	750	2100 /2400
	1000	2100 /2400
	1200	2100 /2400
	1250	2100 /2400
TYPE	WIDTH	HEIGHT
DOUBLE LEAF DOOR	1500	2100 /2400
	1800	2100 /2400
	2000	2100 /2400
	2100	2100 /2400
NOTE : (I) WITH OR WITHOUT VISION PANEL (II) HARDWARE IS REQUIRED		

Colours Available (Textured shade also available)



Note : For any other shade please go through the link & confirm
<http://www.ralcolor.com/>

METAL FIRE DOORS

SEHGAL DOORS where Fire Doors are manufactured to meet the life safety requirements of people stuck at any High Rise Building or Structure with the ability to hold or stop the spread of fire. We can proudly say that we are playing a crucial part in your everyday life & at your own personal place, to keep you protected & secure yet almost keeping ourself invisible from all.

KEY FEATURES

- I. Can be Manufactured from Mild Steel Sheet, Galvanized Sheet or Stainless Steel Sheet.
- II. Fire Ratings Available - 30, 45, 60, 90, 120 minutes maximum.
- III. No welding joints and sharp edges Interlocking at the stiles.
- IV. Easy to install & fix at site with the help of holdfast Installed Door or through Dash Fastener.
- V. Final finished available with zinc phosphate storing primer, polyurethane paint or powder coated grafted copolymer based anticore coating finish as per the client's requirement.
- VI. Tested & certified by C.B.R.I Roorkes/NABL Lab / Approved Government Lab.
- VII. Our Doors carry a warranty of 1 year against any manufacturing defect.



**1 Point Latch Fire Rated
Panic Bar Door**



**3 Point Latch Fire
Rated Panic Bar Door**

GLAZED METAL FIRE DOORS - FOR 1 HOUR

9.136

Providing fire resistant door frame of section 143 x 57mm having built in rebate made out of 16 SWG G.I sheet (zinc coating not less than 120 gm/Sqm) duly filled with vermiculite based concrete mix, suitable for mounting 60 min fire rated door shutters. The frame is fitted with intumescent fire seal strip of size 10x4mm (minimum) all-round the frame & fixing with dash fasteners of approved size & make, including applying a coat of approved brand fire resistant primer etc. complete as per direction of Engineer-in-charge (Dash fasteners to be paid separately).



9.137

Providing 50 mm thick glazed fire resistant door shutters of 60 min fire rating conforming to IS:3614 (Part - II), tested & certified as per laboratory approved by Engineer-in-charge, with suitable mounting on door frame, consisting of vertical styles, lock rail, top rail, 100 mm wide, bottom rail 200 mm wide, made out of 16 SWG G.I sheet (Zinc coating not less than 120 gm/m²) duly filled FR insulation material with necessary stainless steel ball bearing hinges of approved make, including applying a coat of approved fire resistant primer etc. complete as per direction of Engineer-in-charge (paneling to be paid separately.)

9.138

Providing glazing in fire resistant door shutters, fixed panels, ventilators & partitions etc., with GI beading of appropriate size, made out of 20 SWG G.I sheet (zinc coating not less than 120 gm/m²) Fire resistant sealant, including applying a coat of approved fire resistant primer on GI Beading etc. complete all as per direction of Engineer-in-charge.

9.138.1 - With clear fire resistant glass panes 6mm thick of approved brand, having minimum 60 min fire resistance.

9.138.2 - Providing panic bar/latch (Double point) fitted with a single body, Trim latch & lock on back side of the Panic Latch of reputed brand and manufacture to the approved by the Engineer-in-charge all complete.

GLAZED METAL FIRE DOORS - FOR 2 HOURS

9.161

Providing fire resistant door frame of section 50 x 60mm on horizontal side & 35 x 60 mm on vertical sides having built in rebate made out of 1.6 mm thick GI sheet (Zinc coating not less than 120gm/m²) suitable for mounting 120 min Fire Rated Glazed Door Shutters. The frame shall be filled with Mineral wool Insulation having density min 96Kg/m³. The frame will have a provision of G.I. Anchor fasteners 14 nos (5 each on vertical style & 4 on horizontal style of size M10 x 80) suitable for fixing in the opening along with Factory made Template for SS Ball Bearing Hinges of Size 100x89x3mm for fixing of fire rated glazed shutter. The frame shall be finished with a approved fire resistant primer or Powder coating of not less than 30 micron in desired shade as per the directions of Engineer - In- charge. (Cost of SS ball bearing hinges is excluded).



9.162

Providing 60 mm thick glazed fire resistant door shutters of 120 min Fire Rating confirming to IS:3614 (Part II) or EN1634-1:1999, tested and certified as per laboratory approved by Engineer-in-charge, with suitable mounting on door frame, consisting of vertical styles, top rail & side rail 60 mm x 60 mm wide and bottom rail of 110 mm x 60 mm made out of 1.6mm thick G.I. sheet (zinc coating not less than 120gm/m²) duly filled mineral wool insulation having density min 96 kg/m³ and fixing with necessary stainless steel ball bearing hinges of size 100x89x3mm of approved make, including applying a coat of approved fire resistant primer or powder coating not less than 30 micron etc. all complete as per direction of Engineer-in charge (panelling to be paid for separately).

9.164

Providing glazing in fire resistant door shutters, fixed panels & partitions etc. with G.I. beading made out of 1.6 mm thick G.I. sheet (zinc coating not less than 120 gm/m²) of size 20x 33 mm screwed with M4 x 38 mm SS screws at distance 75 mm from the edges and 150 mm c/c , including applying a coat of approved fire resistant primer/powder coating of not less than 30 micron on G .I. beading, & special ceramic tape of 5 x 20 mm size etc. complete in all respect as per NBC 2016, IS 16231 (Part 3): 2016 and as per direction of Engineer- In-charge. The glass shall be clear , toughened, interlayered, non-wired fire resistant having 11 mm thickness of approved brand with 120 minutes of fire resistance both Integrity & radiation control (EW120) and minimum 20 min of insulation (EI15) and having a sound reduction of 37dB and LT of 86%. Glass shall be compliant to class 2(B) 2 category of Impact Resistance as per EN 12600. The glass should be manufactured in UL & TUV audited Facility and including UL-EU Certification. The maximum glazing size cannot be more than 1100 mm x 2200 mm (w x h) or 2.42 Sqm s in total area. The test report for the complete system (Glazed Door or Partition) will be considered valid only if it contains the stamp and signature of the authorized signatory from the glass manufacturer . (Actual glass size is to be measured at site for payments).

FIRE RESISTANT GLAZING PARTITION



TECHNICAL FEATURE

- Tested in approved laboratory as per IS 3614 or BS 476 Part 20B: 22
- Frames - Single Rebate/Double Rebate/Architrave options.
- Glass - Fire rated glass depending on fire rating
- Sound Insulation: Depending on the performance of fire resistant glass Used.
- Heat insulation: Depending on the performance of fire resistant glass Used.
- Finish - Any colors with paint, powder coated in RAL colors (both door frame and leaf structure) & various finishes.
- Rating - 60min/120min with E or EI fire rated Glass
- Installation - Offer installation services.
- Fire-resistant stratified glass.
- Sound Insulation: Depending on the performance of fire resistant glass Used.
- Heat insulation: Depending on the performance of fire resistant glass Used.
- Anti-aging: In case of outdoor, door frame should use in conjunction with fire-resistant glass.

Fire resistant glazing partition structure :

- Fire resistant glass
- Fire pad
- Refractory
- Glass glue
- Skeleton
- Fire resistant fiber
- Screw

USE

This product is light and less on the line of sight blocked. It has been widely used in indoor fireproofing partition of bulk space, such as exhibitions, gymnasiums.

FIRE RATED GLASSES

(Available in 60 & 120 min fire rating)

Fire Rated Glass in the event of the fire can provide an effective barrier to fire, smoke & hot gasses(integrity). Wired glass is produced by carefully embedding wire mesh or metal wires into glass.

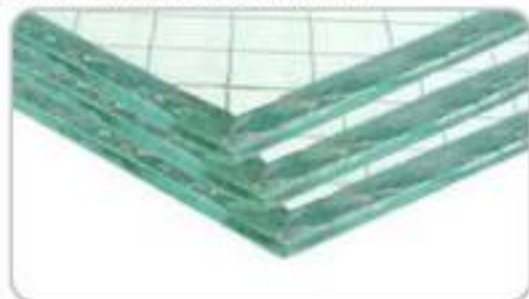
On exposure to fire the glass fractures but is held in one piece because of wire mesh, and thus maintaining integrity by preventing passage from collapse due to smoke or flames passage of smoke & flames. The use of these glasses can also act as a deterrent to would-be intruders.

Fire rated wired Glass is used in buildings throughout the world when cost effective fire resistant glazing is required in windows, partitions & doors.

The strength of the wire mesh ensures that the glass breaks safely & does not allow the broken pieces to act as a sharp weapon.

Pilkington Pyroshield™ 2 is a monolithic wired glass. It offers reliable integrity only, fire-resistant glazing in a range of applications, including doors, screens and overhead glazing. It can also be used in a variety of internal and external applications for vision or privacy purposes. Wired Glass has a good track record in fire testing, offers exceptional value for money and is easy to handle, stock and glaze. That is why it is still one of the most popular fire-resistant glass types.

FIRE-RESISTANT GLASS TYPES.



Fire Rated Wired Glass



Fire Rated Clear Toughened Glass

BENEFITS OF FIRE RATED

- Available in a clear or Wired for vision or privacy respectively.
- Suitable for internal and external applications.
- Easy to handle, stock and cut.
- Meets British and European fire test standards.
- Approved for use with popular fire-resistant glazing gaskets and sealants.
- Thickness available 6mm for wired glass & 6,8,10-14 mm in clear toughened glass.
- Pilkington Pyroshield™2 Safety Clear is suitable for use in fire and non-fire applications where an impact safety classification in a wired product is required.

IRON MONGERY / HARDWARE SET

(Single Leaf Door)

HS 1



HS 4



HS 2



HS 5



HS 3



HS 6



IRON MONGERY / HARDWARE SET (Double Leaf Door)



WHAT IS AN EMERGENCY EXIT BAR

It is a form of lever tumbler lock for unlocking a door during emergency conditions. The mechanism consists of a spring-loaded metal bar fixed horizontally to the inside of an outward-opening door. When the lever is either pushed or D-pressed, it activates a mechanism which unlatches the door allowing occupants to move quickly from that building.

FEW NAMES ASSOCIATED WITH PANIC BAR

Panic Exit Device, Panic Bar Lock, Panic Push Bar, Panic Bar with Alarm, Fire Door Panic Bar, Emergency Exit Panic Bar, One Point Latching/Locking Panic Exit Device, Two Point Latching/Locking Panic Exit Device, Three Point Latching/Locking Panic Exit Device, Panic Bar Door Lock, Panic Door Bar, Crush Bar, Push Bar, Press Bar, Push Bar Mechanism, Panic Lock, Panic Bar with Access lock, etc.

PUSH EXIT BAR

Suitable Door Width : Upto 1200 mm
Finish : Silver

ONE POINT LATCHING EXIT PRESS BAR FOR SINGLE LEAF DOOR

Suitable Door Width : Upto 1200 mm
Finish : Silver

TWO POINT LATCHING EXIT PRESS BAR FOR SINGLE LEAF DOOR

Suitable Door Width : Upto 1200 mm
Suitable Door Height : Upto 2400 mm
Finish : Silver

TYPES OF PANIC BAR

PUSH EXIT BAR

It is a Horizontal metal bar fixed to the inside area of a door. It is a push bar mechanism which can be pushed easily in order to open the Door and move out safely especially at the time of an emergency.

PANIC BAR WITH ALARM

It is a horizontal metal bar having an inbuilt alarm system which works as an indicator whenever anyone tries to enter the room. It is a push bar mechanism which can be pushed easily in order to open the Door.

ONE POINT LATCHING EXIT PRESS BAR FOR SINGLE LEAF DOOR

It is a Horizontal metal bar fixed to the inside area of a door. It is a press bar mechanism which can be pressed easily in order to open the Door and move out safely especially at the time of an emergency or panic situation.

Suitable Door Width : Upto 1200 mm
Finish : silver



IT IS FIXED ON THE
INSIDE OF AN OUTWARD
OPENING DOOR

TWO POINT LATCHING EXIT PRESS BAR FOR SINGLE LEAF DOOR

It is a Horizontal and vertical metal bar fixed to the Inside area of a door. It is a press bar mechanism which can be pressed easily in order to open the Door and move out safely especially at the time of an emergency.

**TWO POINT LATCH
PANIC BAR**
(Use for Double Leaf Door)



THREE POINT LATCHING EXIT PRESS BAR FOR DOUBLE LEAF DOOR

It is a horizontal and vertical metal bar fixed to the Inside area of a Double Leaf Door. It is a pressbar mechanism which can be pressed easily in order to open the Door and move out safely especially at the time of an emergency.



**IT IS FIXED ON THE INSIDE OF
AN OUTWARD OPENING DOOR**

Suitable Door Width
Suitable Door Height
Finish

Upto 1200 mm
Upto 2400 mm
silver

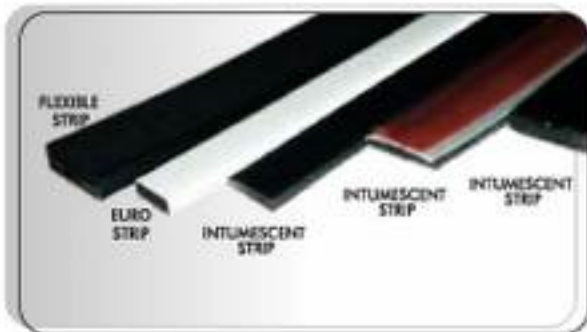
FIRE SEALS

INTUMESCENT STRIP

for fire rated metal door leaves and frames, is an ideal for general gap filling in buildings eg. Suspended floors, ducting. Intumescent Strip is supplied in a continuous coil to minimize wastage and is quick and easy to fit as no special tools are required. They are supplied with a high grade acrylic self-adhesive tape backing for ease of application.

Intumescent Strip has been specifically designed for use in the following applications:

- I. Surface mounted applications.
- II. For use single and double action leaf doors.
- III. Insulated and non-insulated steel doors and frame.
- IV. New build and retro-fit applications.



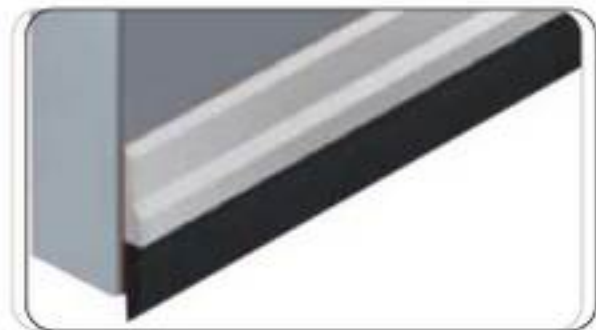
INTUMESCENT SEALS



SIDE RUBBER SEAL



DROP DOWN SEAL



BOTTOM SEAL

ACOUSTIC AND SMOKE ACOUSTIC SEALS

Acoustic and smoke Acoustic seals with added smoke sealing performance are ideal for new-build or upgrading of existing door sets as a primary perimeter seal. It can be used as a secondary sealing solution to enhance the acoustic rating in specialist acoustic door sets.

DROP DOWN

Drop seals fit to the bottom of a door and drop down automatically when the door closes to form a tight seal. Drop seals also provide added security by eliminating the gap beneath a door thus, reducing the chance that criminals could exploit this weakness.

SLIDING DOOR

A sliding door is a type of door which opens horizontally by sliding, usually parallel to a wall. Sliding doors can be mounted either on top of a track below or be suspended from a track above and some types 'disappear' in a wall when slid open. Sliding doors are commonly used as shower doors, glass doors, screen doors, wardrobe doors or in vans.



SLIDING DOOR GEAR:

The mechanism used to operate a sliding door is called sliding door gear. There are two standard types, top hung or bottom rolling systems. Both types do not have a perfect seal. To reduce air- and smoke-tightness and sound insulation, brush seals are commonly used.

TOP HUNG SLIDING DOORS

The 'top hung' system is most often used. The door is hung by two trolley hangers at the top of the door running in a concealed track; all the weight is taken by the hangers, making the door easier to move.

At each end is a track stopper to absorb any impact made if the door is slammed and to hold the door in the open or closed position. All top hung sliding door gear systems have a maximum weight limit per pair of trolley hangers.

BOTTOM ROLLING DOOR GEAR

Sometimes a top hung system cannot be used, as the weight of the door cannot be supported from above, in this case a bottom rolling system is recommended.

A bottom rolling system consists of two rollers (sometimes called a sheave) at the bottom of the door running on a track and two guides at the top running in a guide channel. As all the weight of the door is concentrated on the two bottom wheels, more force is needed to move the door than on a top hung system.

LIFT-AND-SLIDE DOOR GEAR

A sliding door that is lifted from the frame during opening and closing is called a lift-and-slide door. This allows for a better seal, with less draught and better sound proving.

AUTOMATIC SLIDING DOORS

Some sliding doors contain a motor and activation system to open them. These are called sliding door operators. Automatic sliding doors are commonly found in offices and shop entrances. These doors contain a magnetic locking mechanism that automatically unlocks during emergencies.

USAGES:

Advantages of sliding doors are that there is almost no room required to open the door, they are relatively easy to automate. The mechanism is also secure, since it cannot be lifted out of its hinges. Sliding doors are commonly found as store-, hotel and office entrances, elevators, patios doors, closet doors and room dividers. Transport industries also use sliding doors in vans, trains and metro.

APPLICATIONS:

- Commercial Building
- Industrial Building
- Residential Building
- Metro
- Hospital
- Elevators

FEATURES:

Normally the door is in open condition. It gets activated via fusible link at the time of fire breakout & the door closes automatically by counterweights.

All steel components of the doors are designed and fixed to provide complete sealing.

Available with easy see through vision window



BULLET PROOF DOORS

- Bullet Proof Door is a protection product between humans and bullets.
- Since doors are one of the most vulnerable areas of a building when it comes to security, we often opt to install bullet proof doors for added protection against theft or ballistic attack.
- Though doors can be designed to offer increasing levels of ballistic protection, no material can be completely bullet proof. Over time, any material used will succumb to repeated attack by bullets. Instead, we refer to these products as “bullet resistant” doors.
- Though it is impossible to create 100% bullet proof doors, we offers complete bullet resistant door systems for corporate offices, financial institutions, retail spaces and more to provide highly effective protection. We design and manufacture a wide range of bullet resistant door systems, crafted with attractive materials to complement the look and feel of your building.
- The doors may be flush or have full glass vision lights.

Where Bullet Proof Doors are used?

- The areas in which the door is used include security rooms in airports and train stations, police stations, banks, courthouses and private properties that have high security requirements.
- Bullet resistant doors are often used in government building, cashier stands, high crime rate areas or any structure where increased safety is desired.

Material used for Bullet proof doors:

- Bullet proof doors are high-security doors with a solid bullet resistant material core on a steel sub-frame. They come with a thickness of 50-60mm and a 3mm Powder coated finish.
- Material: bullet proof steel panel, SSAB

Available in combination with:

- Sound insulation
- Panic bar
- Features:
- Sturdy construction
- Highly durable
- Smooth finish

Applications:

- Café's and discotheques
- Banks
- Embassies
- Courts
- Government buildings
- Shooting ranges

Hardware used in bullet proof doors:

- Panic bar
- Hinges
- Lock
- Handle



HATCH DOOR/TRAP DOOR

A trapdoor is a hinged door, flush with the surface of a floor, roof, or ceiling, or in the stage of a theatre. A hatch, an opening which may also be in a wall and need not be flush with the surface, is similar; in some cases either name is applicable. A small door in a wall, floor or ceiling used to gain access to equipment is called an access hatch or access door.

STEEL ROOF HATCHES

- A steel roof hatch provides access to a roof from the interior of a building. Made of heavy-duty steel, these hatches are designed to withstand the elements and foot traffic. Weather gaskets, sturdy handles, and rust-resistant coating make a steel roof hatches suitable for installation on the outside of a building. Black and yellow tape line the perimeter and inside the door. This makes using the door safer by making it obvious when the hatch is in its open position.
- Roof hatches are often used in combination with a disappearing stairway. These ladders collapse and are stored behind the access door. They are manufactured from aluminum and are custom made for the space they occupy up to 13.5 feet.



FIRE RATED FLOOR HATCHES:

- Floor hatches in certain commercial and industrial settings must be fire rated. An aluminum fire rated floor hatch should be both fire resistant and sturdy enough to handle regular foot traffic. These doors are stabilized with a diamond plate for this reason.
- Fire rated floor hatches offer the added benefit of a recessed panel in the door to hold a square of floor material. Once installed with the flooring surface surrounding it, the closed hatch is flush with the floor. It can be fitted with tile, concrete, stone, and other thick materials in order to fit in seamlessly with the surrounding design.



RECESSED FLOOR HATCHES:

Hatches are like any other door: they should fit the design of the room they're installed in. Recessed floor hatches allow you to fit a piece of flooring into the door so it blends in seamlessly with surrounding floor surfaces. They are made to accept 1" of flooring material including concrete, stone, and tile. Recessed floor hatches are made with the same level of durability as other floor doors, but offer additional design features that make an exposed floor hatch less noticeable.



DIFFERENT USES OF ACCESS DOORS

Due to the needs for and applications of access doors, dozens of access door solutions have emerged in the 21st century. The same door that may be ideal for a crawl space might not be best for a plumbing space.

WALLS

Unlike other access doors, wall access doors can serve several purposes. These doors give you access to plumbing, pipes, cables, crawl spaces or storage spaces, and as you may imagine, there are dozens of options to fulfill those needs. Flush access doors are best for walls that have built-in welded trim for extra strength and durability

CEILINGS

Access doors for ceilings can be doors or panels. These access doors are most often used to get into crawl spaces or attics.

ROOFS

When you need access to a roof, you want it to be easy. Roof access doors and roof hatches solve that problem

Having a heavy duty weather resistant roof access door is important for commercial buildings and frequent use. You want a roof door that is durable and won't rust so that it can last for years without replacement.

DUCTS

This hinged duct access door is an ideal option for getting to small ducts. A full duct panel duct access door will give you walk-in access to much larger spaces.

FLOOR SPACE & STORAGE

Floor access doors are used for accessing sewage systems, underground pipes, electrical and sometimes storage areas. Since floor access doors have so many use-cases, there are a bevy of different sizes and materials these doors come in.

For most floor access doors, you'll want to make sure they have a sturdy handle. If they are outdoors you'll want to make sure they are weather-resistant.

FEATURES:

- Easy and quick assembly
- Manufactured from steel
- Powder coating finish
- Simple to operate

ACOUSTIC METAL DOORS

What are Acoustic metal doors?

In the age of open floor plans and chiming cell phones, silence is golden. That may explain the growing demand by architects and building owners for sound resistant doors.

Acoustic doors are engineered to prevent a specific amount of sound from passing through a door.



Interior and Exterior Acoustic doors

A soundproof room is only as good as its components. If the door does not meet the same acoustical requirements as the rest of the room, then sound will easily pass through it to adjoining spaces. When fitted with the right door and sealing systems, noise will be contained and controlled.

Soundproof interior and exterior acoustic doors are an ideal cost effective solution for recording studios, hotels, music rooms, conference rooms, or any space that needs to be soundproof. Our pre-hung acoustic doors feature multilayer construction in a variety of wood options suitable for indoor applications or metal for exterior use. If the door itself is not a problem, it could be that sound is leaking through the space between the door and the jamb.

Their use-

- Soundproof and acoustical doors and windows, in wood or metal, are used in premiere live performance venues and industrial applications where sound containment is of primary concern.
- Radio & TV Broadcast Studios
- Recording Studios
- School Music Facilities
- Movie Theaters
- Museums
- Sensitive Compartmented Information Facilities (SCIF) etc.



Availability

Acoustical doors are available in flush designs or with vision lights, as singles or pairs, including single or bi-parting horizontal sliding doors, and as manual or power operated assemblies.

Sound proof

Sound is defined as pressure variations (oscillations) in air, water, or other mediums that can be detected by the human ear and the number of vibrations per second is referred to as the frequency of sound and is measured in Hertz or Hz. Human hearing ranges from approximately 20 Hz to 20,000 Hz, with the frequencies of speech ranging from 20 Hz to 8,000 Hz. Sound level

Installation

Vision lites can reduce the overall effectiveness of acoustic doors but are often necessary for many reasons. Glass is rigid and therefore does not exhibit very acceptable sound reduction properties. However, the use of double paned laminated glass of different thicknesses tends to increase the effectiveness and the combination of each pane vibrating at different frequencies coupled with gasket isolation and airspace between works quite well.



It is imperative that acoustic door assemblies are installed with precision. Noise, like water, seeks the point of least resistance and therefore frames must be installed plumb, square and true, doors must be adjusted for proper clearance, thresholds must be level and all perimeter seals, door bottoms and astragals must be properly adjusted.

Acoustical door rating scale

Acoustical door and window products are rated on a Sound Transmission Class scale.

A STC 55 door is capable of reducing the sound of a jet engine (130 DBA) to that of a typical office (60 DBA).

Application of Acoustic metal doors

- Machine rooms
- DG room acoustic doors
- Plant and equipment storage facilities
- Control rooms
- Turbine pit access doors
- Manufacturing units
- Flood water control access doors

Benefits

- Complete size & door leaf opening style flexibility
- Heavy duty hardware
- Guaranteed performance laboratory tested
- Sliding and hinge type doors
- Acoustic door jamb designs allow build in or retrofit installation options.

Finishes

Metal products receive a coat of rust inhibitive primer. Zinc-rich and other select primers are available. Finish painting may also be available.

FIRE CURTAIN

Even if you have heard of fire curtains and smoke barriers, it is easy to become confused by the technical specifications and terminology that surround them. We hope to explain in simple language what a fire curtain is and most importantly, why they are needed.

Put simply, a fire curtain is a specially constructed curtain that descends from the ceiling to block an opening and stop fire and smoke spreading between two areas. In larger structures, several fire curtains are used which divide the building into 'fire compartments' when there is a fire.

This is called 'compartmentation' and is a fundamental element of passive fire protection in buildings. It helps to:

- Provide time for people to escape
- Protect escape routes
- Allow time people for firefighting services to arrive
- Protect property

Structure of a Fire Curtain

A fire curtain is similar to a metal roller shutter in that it descends vertically as it un-rolls from a 'top box', however because a fire curtain is made of a woven fibre glass material, it is much more flexible and compact.

This means a curtain can be more closely fitted within a space and therefore provides much better compartmentation.

The compact construction of fire curtains makes them an ideal choice for lobbies, hatches and stairwells where there is limited space. When included in the design stage of a building, they can be recessed into walls and ceilings leaving a thin slit as the only indication that the curtain is there. There are several types of fire curtain:

Automatic Fire curtains

Most non-static fire curtains are in fact automatic. They are linked to the fire alarm system so they automatically descend when there is a fire.

Static Fire Curtains

Also called fixed fire curtains, these curtains are permanently in place and are used to provide compartmentation in open spaces such as warehouses or lofts.

Insulated Fire Curtains

These curtains provide extra insulation and allow people to pass by much closer to the curtain without being effected by the heat of the fire on the other side.



Certification and Standards

All fire curtains must be rigorously tested and certified. These standards ensure that the integrity of a curtain will remain for a certain minimum length of time and that they will continue to work in the extreme conditions of a fire.

A fire curtain is used where, if there is a fire, it is necessary to create a temporary barrier within an opening that seals off the area on fire. The curtain descends and prevents any fire and smoke from spreading from one area to another. It also allows people access to protected escape routes without any loss of fire resistance.

Features and benefits

No power needed to operate it - fire curtain unwinds to its operational position under the influence of gravity in a "gravity fall-safe" manner without the need for power.

Compact and low in weight - fire curtain is lightweight and compact, which enables it to be installed easily in a place with space constraints such as a false ceiling. Such a roller fire curtain is much more unobtrusive than a roller shutter with a comparable performance.

Virtually invisible when rolled up - There are no visible fixings either on the underside of the head box or on the bottom bars. The head box, the bottom bar and the side guides can be powder-coated to a RAL color to blend in with the building.

The guide rails can be easily and unobtrusively recessed into the structure of the building. The head boxes are among the most compact on the market.

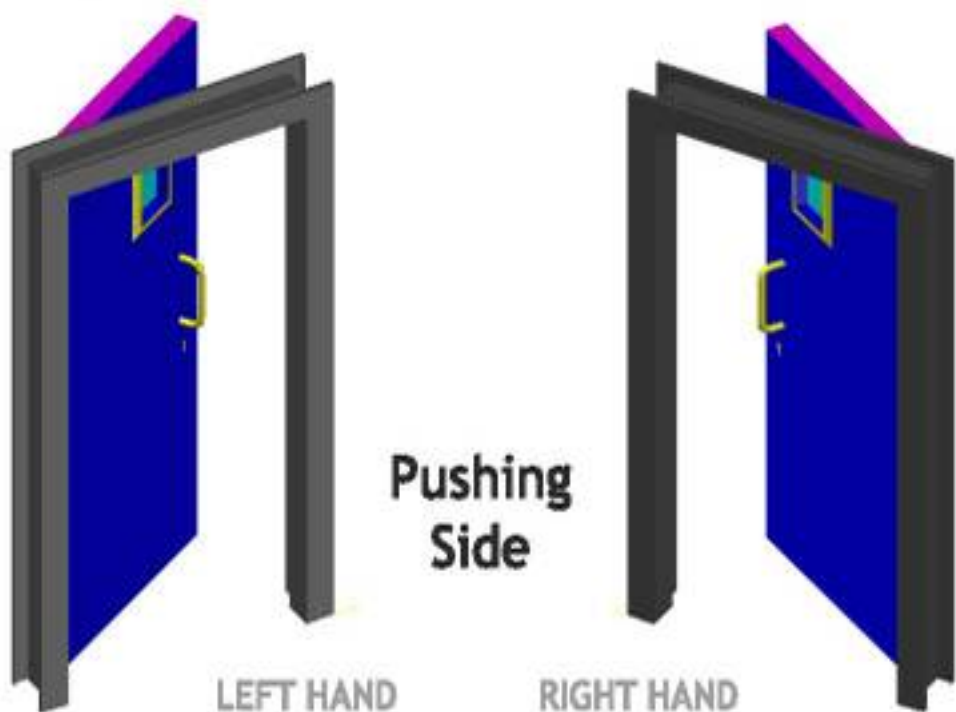
Easy to install and maintain - AFM-1 fire curtain is delivered in modular form and as such is easy to install. The bottom of the head box is closed off with a panel which also allows the entire length of the system to be accessed for servicing.

Design service - We provide a bespoke design service for fire curtains that includes a pre-design service and stress-free project management throughout your project, ensuring the system is up and running perfectly.

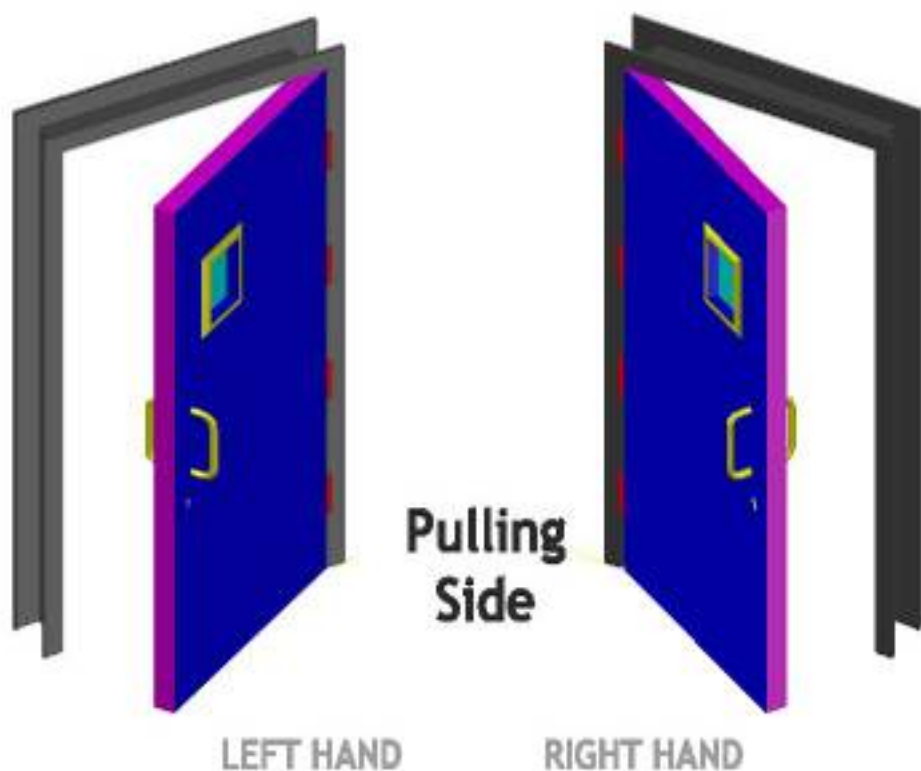
Service and maintenance - Once your system is installed we offer you peace of mind in the form of total service and parts support through our service division.

For more information relating to the application, specification, and installation and servicing of this product contact us.

DOOR OPENING DIAGRAM INSIDE

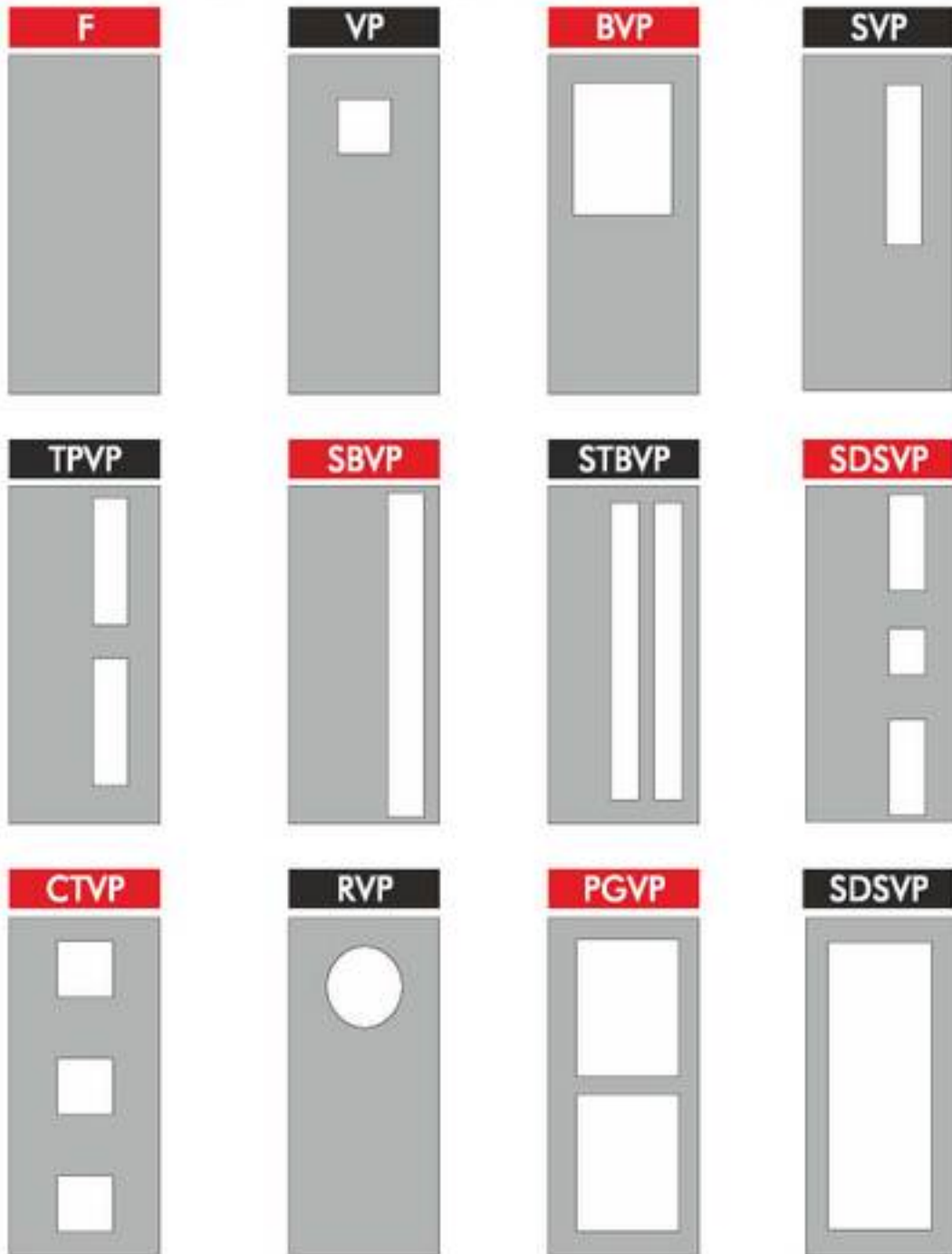


DOOR OPENING DIAGRAM OUTSIDE



FEW DOOR DESIGNS

We manufacture fire rated proof door of superior quality and our doors have a unique combination of integrity, stability and aesthetic value to withstand specified fire rating. As the name suggest fire doors prevent the fire to surpass and increase the safety level.



Note

Fire resistant door of steel composite light weight single leaf, swing type, asbestos free (2 hrs rating) confirming to BS-476 part 22, IS:3614 as per prototype tested and certified at C.B.R.I Roorke comprising of welded box section, frame and 46mm thick shutter with 1.25mm thick G.I sheet with all steel work primed and painted with fire retardant paint.

FEW DOOR DESIGNS

Metal Flush Door



MFD

With Top Fix Panel



WTFP

Metal Door
With Louver



MDWL

Metal Door
With Half Louver



MDHL

Vision Panel



DWVP

Fire Door With 3 Point
Latch Panic Bar



FDWPB

Fire Hose Cabinet



FHC

Service Window



DWSW

Hatch Door



HD

POWDER COATING / GRAFTED COPOLYMER BASED ANTICORE COATING

Powder coating process reduces hazardous waste, prevents poisoning, and occurrence of fire by not requiring solvent to keep the binder and filler part in a liquid suspension form. Storing and managing is easy because the paint is in the powder form and emits zero or near zero volatile organic compounds (VOC).

1. Powder coating can produce coatings without running or sagging.
2. Painting process can be shortened because setting is not needed after coating.
3. Powder coating process is simple.
4. Adhered coating produces 100% film of paint.
5. Depending on the process, powder coating can produce film of 40mm - 50mm thickness.

ADVANTAGES TO POWDER COATING

- Strength of the painted area is strong.
- Creates smooth surface.
- Does not peel off easily.
- Strong adhesive.
- Increased paint efficiency by removing bond coating.
- Has a graceful appearance.

POWDER COATING PROCESS & FLOW DIAGRAM

Powder coating uses only 100% powder.

Powder coating can continuously spray uniform film coating of about 80 meters.

Powder coating is economically efficient.



INDUSTRY RELATION

SEHGAL DOORS has come a long way to emerge as one of the most Innovative, Reliable & Trustworthy Organization in the recent few years.

Under the true Support and direction of Shri S.K Sehgal (Founder of M/s Sehgal & Sehgal Industries) SEHGAL DOORS has been able to attain a rock solid position in the open & wide market of Door & Windows Manufacturing & has become a brand name in the field of Fire Doors.

FEW MAJOR PROJECTS UNDERTAKEN

FIRE RATED DOORS

- Delhi High Court (CPWD Project)
- AIIMS Hospital - Delhi
- O.P Jindal University - Sonapat
- Fire Doors & Hardware for TAJ group of Hotel - Delhi, Varanasi
- Adobe System India - Noida
- Harley Davidson Motors Co. India Pvt. Ltd. - Bawal
- Larsen & Turbo - Jodhpur, Jaipur
- Siemens Limited for their various PGCIL Sites
- Gammon India Limited - Orrisa
- BSNL - Lucknow (Glazed Door)
- DLF - Gurgaon
- M.P Birla Hospital & Research Centre - Chittorgarh
- Dineshchandra R. Agrawal Infracon Pvt. Ltd. - (Rohini Helipad)

HANGER DOORS

Hanger Doors for PARO International Airport (Bhutan) - For Jaiprakash Associates Limited.



LIST OF FEW CLIENTS

GOVERNMENT DEPARTMENTS

- Nation Thermal Power Corporation (N.T.P.C. Raj-Unit)
- Military Engineering Services (M.E.S)
- Delhi Metro Rail Corporation (DMRC)
- Bharat Heavy Electrical Limited (B.H.E.L)
- Engineering India Limited (E.I.L)
- Power Grid Corporation of India Limited (PGCIL)

AUTO-MOBILE INDUSTRIES

- Honda Siel Car India Limited
- Maruti Suzuki India Limited
- Volkswagen
- Taikisha Engineering India Limited.

HOSPITALS

- A.I.I.M.S
- LNJP
- ILBS Hospital
- Shri Mata Vaishno Devi Narayana Superspeciality
- BLK Hospital
- Maharaja Agrasen Hospital
- BENSUPS Hospital
- Max Health Care Institute
- Kasturba Hospital - Bhopal
- Bir and Paropakar Maternity and Women's Hospital - NEPAL

HOTELS & MALLS

- TAJ Group of Hotels
- ITC Limited
- Gangetic Hotels Pvt. Ltd.
- Lemon Tree
- De Aqua
- Oberoi Hotels
- Stay Bloom Hotels
- Today Hotel New Delhi Pvt. Ltd.
- Crown Plaza Hotels & Resorts
- Orange Spa Hotels & Resorts Pvt. Ltd.
- Kingdom Of Dreams
- Pacific Mall
- Pentagon Mall (Haridwar)
- Dlf Saket
- Ashok Cosmo Mall
- Great India Palace Mall (Gip, Noida)

CLIENTS...

EXPORT

- Himalayan Builders & Engineers - Nepal
- S.N. Nepal Pvt. Ltd. - Nepal
- Hazama Ando Corporation - Nepal
- Bisenco Limited - Mauritius
- Essen Pest Control Inc. - Canada
- Multi Safety System Pvt. Ltd - Nairobi Kenya
- Harirod Construction Company - Kabul, Afghanistan
- Jaguar Overseas Limited
- Andritz Hydro Pvt. Ltd.
- Shahi Export
- Lucky Export
- At Export
- Vimal Export Global Llp
- S&R Exports
- C.L Gupta Export Ltd
- Csl Export

BUILDERS & CONTRACTORS

- Umang Realtech Pvt. Ltd.
- URC Construction Pvt. Ltd.
- Dineshchandra R. Agrawal Infracon Pvt. Ltd.
- Indospace Development Management Pvt. Ltd.
- DLF Power & Services Limited
- DLF Utilities Limited
- DLF Limited
- JMC Projects Ltd.
- Arcon Projects
- Vijay Nirman Company Pvt. Ltd.
- Best Buildwell Pvt. Ltd.
- Vogelsang India Pvt. Ltd.
- AIMS Buildmart Pvt. Ltd.
- Landmark Buildwell Pvt. Ltd
- Satya Developers Pvt. Ltd.
- Vishal Infrastructure Ltd
- SINHOP Engineering Consultants Private Limited
- Frigerio Conserva Allana Pvt. Limited
- Landmark Apartments Pvt. Ltd.
- DCM Hyundai Ltd
- Ajanta Builders
- Canon Fastener
- MAC Associates
- Rohan Builders India Ltd.

CLIENTS...

- VA Tech Wabag Limited
- Sun Nirman Infrastructure Pvt. Ltd.
- Sharma Construction
- Quality Buildcon Pvt. Ltd.
- GDCL & PSP Joint Venture
- SAM India
- Kailash Nath
- CP Associates
- S.N.S. Infraprojects Pvt. Ltd.

LARGE SCALE CORPORATE FIRMS

- TATA PROJECTS LIMITED
- Adobe Systems Pvt. Ltd.
- Larsen & Turbo Limited
- Bangalore International Airport Limited
- ITD Cementation India Limited
- Simplex Infrastructures Limited
- Amazon Seller Services Pvt. Ltd.
- Amazon Transportation Services Private Limited
- Stonex India Pvt. Ltd.
- Gammon India Limited
- Jindal Steel Limited
- Sona Koyo Steering Systems Ltd
- Jai Prakash Associates Limited
- Parsvnath Developers Ltd.
- Bl Kashyap & Sons Limited
- Macawber Beekay Private Limited
- Jubilant Agri And Consumer Products Ltd.
- Interglobe Education Services Ltd.
- TATA Communication Limited
- Fl Smidth
- Consolidated Construction Consortium Limited (Cccl)
- Era Construction Pvt. Ltd.
- Electrosteel Steels Limited
- Seimens Limited
- Copal Patners
- Bharti Retail
- Idea Cellular
- Airtel
- Vodafone

CLIENTS...

EMBASSIES

- Embassy Of Italy
- The Embassy Of The United States Of America.
- Embassy Of The Federal Democratic Republic Of Ethiopia
- British High Commission New Delhi
- Embassy Of The Russian Federation
- U.S Embassy
- Embassy Of Israel
- Embassy Of France
- High Commission Of Canada
- Embassy Of Japan

CEMENT INDUSTRIES

- Aditya Birla
- Ultratech Cement Limited
- Grasim Industries Limited
- Shree Cement Limited
- Vasavadatta Cement
- New Bihar Cement Plant (A Unit Of Shree Cement)
- Shree Raipur Cement Plant (A Unit Of Shree Cement)
- Asian Paint Ltd.

BANKS

- Indusind Bank
- State Bank Of India
- Standard Charter Bank



PURCHASE ORDER

पावर ग्रिड कारपोरेशन ऑफ इंडिया लिमिटेड
POWER GRID CORPORATION OF INDIA LIMITED

B-9 Qutub Institutional Area, Kirti Vihar, New Delhi - 110016
GSM / Phone : + 91-11-26562447, 26567548 Fax / FAX : +91-11-26562685, 26564736
E-MAIL:PGCIL-1@PGCIL-1.GOV.IN

Date: 12.12.2014

Mr. Sahgal, Doors
B-113, Westpark Industrial Area
Phase-I, New Delhi-110084
Ph: 471-2810410, 28117307

Sub: Supply & Fixing of Fire Resistance Doors (2 Hours Rating) for 400/220KV Sahajkhanpur SB
(Provisional Time Extension - 10 days after receipt)

Dear Sir,

1.0 This has reference to the following
1.1 Work Order No. S/C/2014-15/0443/0443/PGCIL/CG/02(a) & 02(b) dt 11.4.2014
1.2 Your letter Ref No PGCIL/DO-PO/2011/02/443 dt 12.11.2014
2.0 On your request, Completion time under the subject contract has been extended up to 21.12.2014 without reduction of L1 of this stage.
आपके आग्रह पर, 21.12.2014 तक पूर्ण होने की तिथि 31.12.2014 से 40 दिनों तक बढ़ा दी जा रही है।
3.0 This extension of time is without any financial benefit to the extended period and without prejudice to all the obligations of the contractor under the contract and further that he without prejudice to the right of POWERGRID to levy Liquidated Damages and other rights as per relevant provisions under the contract.
Provided that not withstanding the extension hereby granted, time is and what will continue to be the essence of the said contract.
आपके आग्रह पर 21.12.2014 तक पूर्ण होने की तिथि 31.12.2014 से 40 दिनों तक बढ़ा दी जा रही है।
4.0 This letter is being issued to you in duplicate. Duplicate copy may please stamped as a token of your acknowledgement within 10 days.
आपके आग्रह पर 21.12.2014 तक पूर्ण होने की तिथि 31.12.2014 से 40 दिनों तक बढ़ा दी जा रही है।
Thanking you.

For SERGAL DOORS
[Signature]
Prop.

Note: In case of any discrepancy in Hindi version or English version of this letter, English version shall prevail.

**Purchase Order
From PGCIL**

Page 1 of 2

Supplier Company Name: SERGAL DOORS B-113 Westpark Industrial Area Phase-I New Delhi Your Vendor No. with us: CG/02(a) & 02(b) From delivery to: Sahajkhanpur SB Contract No: 400/220KV PO Number: 00000117/1190 MOA #: 14-236A Contract: DR	PO Number: 00000117/1190 MOA #: 14-236A Contract: DR Year: 14 Delivery Date: 20.12.2014
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Page No. 1 of 4

Reference: For purchase of Fire Proof and Air Tight Doors from Mr. Sahgal Doors for the Package (S/C/2014-15/0443/0443/PGCIL/CG/02(a) & 02(b) dt 11.4.2014)

Material	Description	Quantity	Unit	Estimated Price	Rate	Total
1	Fire Proof and Air Tight Doors	2	Sq. Ft.	100000	50000	100000

For and on behalf of NTPC Limited

[Signature]
S. P. SINGH
S. P. SINGH
S. P. SINGH
S. P. SINGH

**Purchase Order
From NTPC**

NTPC Limited
(A Government Enterprise)
New Delhi Office: Thermal Power Station
P. G. CHANDRAN
RAJENDRA
Other Products: ENR, ENR, ENR
Telephone No.: 011-26100100 Fax No.: 011-26100100

PURCHASE ORDER

CR No.: CG/02(a) & 02(b)
S/C No.: 14-236A

Vendor Code: 110045
PAN No.: AAAP0127F

To: SERGAL DOORS
1st FLOOR
100/100/100/100
NEW DELHI
Date: 12/12/14
Tel: 011-2810410
E-Mail: info@sergaldoors.com

Purchase Order No.: 00000117/1190 Date: 12.12.2014 (Version - 4)

Reference: 1. Procurement of Fire Proof and Air Tight Doors from Mr. Sahgal Doors for the Package (S/C/2014-15/0443/0443/PGCIL/CG/02(a) & 02(b) dt 11.4.2014)

Our Enquiry No.: / Date: /
Offer: / Date: /

Dear Sir,

We are pleased to accept your offer dated 12.12.2014 for the order value of INR 100000.00. Please arrange to deliver the material as detailed in Attachment 1 & 2 subject to terms and conditions specified in Attachment 3 and 4 of General Purchase Conditions, other specifications and requirements. Duplicate copy of the Purchase Order has please be signed and returned to us within 10 days of its receipt in token of acceptance of the same. If no communication is received within 10 days of receipt of Purchase Order, it will be deemed that order has been accepted in entirety.

For general purchase conditions and form part of Purchase Order has attached enclosed.

For and on behalf of NTPC Limited

Enclosure

Registered Office: NTPC Bhawan, Gate-7, Gurgaon Complex, Institutional Area, Ludhiana, New Delhi-110002
Phone No.: 011-26100100 Fax No.: 011-26100100 Website: www.npc.co.in

Work Done in D.M.R.C



2014 - Ongoing NCR PHASE - III

MUNDKA LINE PHASE - III (11 STATIONS)		
Mundka	Rajdhani Park	Nangloi Railway Station
Nangloi	Surajmal Stadium	Udhyog Nagar
Peeragarhi	Sahdev Park	Paschim Vihar
Paschim Vihar East	Madipur	

NOIDA LINE PHASE - III (14 STATIONS)		
Mayur Vihar Phase - 1	Mayur Vihar Extension	Noida Sector 15
Noida Sector 16	Noida Sector 18	Noida City Centre
New Ashok Nagar	Botanical Garden	
Noida Electronic City to Dwarka Sector 21	Noida Sector 52	Noida Sector 59
Noida Sector 61	Noida Sector 62	Noida Electronic City

GURGAON LINE PHASE - III (09 STATIONS)		
Chatterpur	Ghittomi	Arjangarh
Garden Estate	Sikanderpur	DT City Centre
Iffco Chowk	Sushant Lok	Sultan Pur Depot

LAXMI NAGAR PHASE - III (06 STATIONS)		
Laxmi Nagar	Scope Tower	Nirman Vihar
Anand Vihar	Kaushambi	Vaishali

BADARPUR LINE PHASE - III (17 STATIONS)		
Lajpat Nagar	Moolchand	Kailash Colony
Nehru Place	Kalkaji	Govind Puri
Sarai	N.H.P.C Chowk	Mewala Maharajpur
Sector 28	Badkal Mor	Old Faridabad
Neelam Chowk Ajronda	Bata Chowk	Escorts Mujesar
Sant Surdas (Siri)	Raja Nahar Singh	

MAJLIS PARK - SHBC VIHAR (22 STATIONS)		
Krishna Nagar	Welcome Station	Esat Azad Nagar
Jaffrabad	Gokulpuri	Mayur Vihar - 1
Mayur Vihar Pcket - 1	Trilokpuri	Vinod Nagar East
Vinod Vihar	IP Extension	Anand Vihar
Karkardooma	Maujpur	Karkardooma Court
Mayapuri	Rajouri Garden	E.S.I.
Punjabi Bagh	Shakarapur	Maujpur
Johri Endave		

JANAKPURI (WEST) - KALANDI KUNJ (10 STATIONS)		
Botanical Garden	Amity Chowk/Okhla Bird Sanctuary	Kalandi Kunj
Jasola Vihar/Shaaheen Bagh	Okhla Vihar	Jamia Nagar/Jamia Millia Islamia
Ishwar Nagar/Sukhdev Vihar	Okhla Phase - III/Okhla NSIC	Sadar Bazar/Cantonment
Shankar Vihar		

DWARKA - NAJAFGARH (02 STATIONS)		
Dwarka	Nangli	

MUNDKA - BAHADURGARH (07 STATIONS)		
Mundka Industrial Area	Ghevara	Tikri Kalan
Tikri Border	Modern Industrial Estate/Pandit Shree Ram Sharma	Bus Stand/Bahadurgarh City
City Park/Brig. Hoshiar Singh		

DILSHAD GARGEN - NEW BUS ADDA GHAZIABAD (08 STATIONS)		
Shadid Nagar	Raj Bagh	Rajendra Nagar
Shyam Park	Mohen Nagar	Arthala
Hidan River	New Bus Adda/Shahheed Sthal	

METRO DEPOT (10 DEPOTS)		
Rapid Metro	Mukundpur	Bahadurgarh
Mundka	Yamuna Bank	Vinod Nagar
Sarita Vihar	Arjan Garh	Samaypur Badli Najafgarh Depot

METRO HOUSING (06 HOUSINGS)		
Sarita Vihar	Mundka	IPES
Vinod Nagar	Bahadurgarh	Okhla NSIC



LUCKNOW METRO RAIL CORPORATION - LMRC
STATION - 8 DEPOT - 1

LUCKNOW METRO (08 STATIONS)

Transport Nagar	Krishna Nagar	Singar Nagar
Alam Bagh	Alam Bagh Bus Stand	Mawalya
Durgapuri	Charbagh	

LUCKNOW METRO DEPOT

Lucknow		
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KOLKATA METRO RAIL CORPORATION - KMRC
STATION - 13

EAST - WEST CORRIDOR (13 STATIONS)

Salt Lake	Bengal Chemicals	City Centre
Central Park	Karunamoyee	Salt Lake Sector V
SRY Metro Station	JNN Metro Station	RWG Station
HMJ Metro Station	KSK Metro Station	Baranagar Station
Dakshineswar Station		

AHMEDABAD METRO RAIL CORPORATION
DEPOT - 2

METRO DEPOT (2 DEPOTS)

Apparel Park Depot	Gyaspur Depot	
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MUMBAI METRO RAIL CORPORATION
STATION - 5

MUMBAI METRO (05 STATIONS)

Charkop	Kasturi Park	Malad
Nagar of Line 2A on Dahisar to DN Nagar Corridor	Bandongri of Line 7 on Andheri East to Dahisar East Corridor	



NOW INTRODUCING



Kumbh Mela, Allahabad



Technology Transfer From CSIR

CENTRAL BUILDING RESEARCH INSTITUTE (CBRI) on

FIRE RETARDANT &

WATER REPELLENT CANVAS



FIRE RETARDANT & WATER REPELLENT CANVAS

1st and only company in Asia to get the technology transfer from Council of Scientific and Industrial Research (CSIR) - Central Building Research Institute (CBRI) for "FIRE RETARDANT & WATER REPELLENT CANVAS" a government approved and certified treatment for "SAFE STAY".

FEW TYPES OF CANVAS

1. Canvas Tents
2. Canvas Traps
3. Canvas Taraulins

FABRIC

This Fabric is a woven glass fibre fabric, reinforced with Stainless steel wire coated on both sides with a specially formulated micronized Aluminium polymer coating, which provides an effective heat reflective surface as well as other properties required for materials used in the manufacture of smoke and fire curtains, when installed in public buildings with open areas, where public safety is paramount both onshore and offshore.

ADVANTAGES

As a coated fabric it offers over similarly approved materials, in terms of minimal smoke permeability and reduced skin irritation.

This material is flexible and easy to piece together and install

FIRE RETARDANT FABRICS/CANVAS

- Non Ignition
- Self-Extinguish
- High LOI
- Water resistant and mildew - resistant
- Breathable to help prevent condensation
- Tear resistance Mildew proof
- Refer to IS:1424
- No After Glow
- Good Tensile strength
- Flame retardant
- Light weight
- Smooth texture
- Arctic Flexibility
- Treatment will be for 10 years

BENEFITS TO SOCIETY

- Fire protection of temporary shelters
- Environmental friendly

RESULT

It provides speedy evacuation as the lightweight fabric can be lifted by individuals escaping the building.

CAN BE USED FOR MANUFACTURING

- Smoke & Fire curtains/Blinds
- Cavity walls
- Smoke screens
- Roof void barriers

TESTING

To comply with the requirements of BS 476: PART 20 & 22: 1987, also to meet BS 476: PART 6 & 7, Class 0.

NOW INTRODUCING

**Enjoy noise
free life**

follow solution to reduce noise



Technology Transfer From CSIR

NATIONAL PHYSICAL LABORATORY (NPL) on

**ACOUSTICAL LIGHTWEIGHT INTERIOR DRY
WALL PANEL FOR HIGH SOUND INSULATION**



ACOUSTICAL LEIGHT WEIGHT INTERIOR DRY WALL PANEL FOR HIGH SOUND INSULATION

ACOUSTIC SOLUTIONS manufactured with Council of Scientific and Industrial Research (CSIR) - National Physical Laboratory (NPL) Technology in order to establish a long lasting Noise free relation with your esteemed organization.

We are capable of offering "ACOUSTICAL LEIGHTWEIGHT INTERIOR DRY WALL PANEL FOR HIGH SOUND INSULATION"

In the age of open floor plans and chiming cell phones, silence is golden. That may explain the growing demand by architects and building owners for Sound Proofing Products. These products are engineered to prevent a specific amount of sound from passing through a passage.

We offer a complete range of Sound Proofing Products to suit varying levels of acoustic performance.

THEIR USE

1. Soundproof and acoustical doors and windows, Walls, Partitions etc., in wood or metal, are used in premiere live performance venues and industrial applications where sound containment is of primary concern.
2. Radio & TV Broadcast Studios
3. Recording Studios
4. School Music Facilities
5. Movie Theaters
6. Museums
7. Sensitive Compartmented Information Facilities (SCIF) etc.

APPLICATION OF ACOUSTIC PRODUCTS

1. Your Residence
2. Machine rooms
3. DG room acoustic doors
4. Plant and equipment storage facilities
5. Control rooms
6. Turbine pit access doors
7. Manufacturing units
8. Flood water control access doors

Acoustical Products are available as required by the client site.

OUR CLIENTS

GOVERNMENT SECTORS



HOSPITALS



AUTO-MOBILE INDUSTRIES



BUILDERS & CONTRACTORS



CEMENT INDUSTRIES



LARGE SCALE CORPORATE FIRMS



HOTELS & MALLS



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**100% RECYCLABLE
PRODUCT**

**SEHGALdoors**

DOORS >>> WINDOWS >>> WALLS >>> CANVAS

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Factory: B-133, Phase-I, Mayapuri Industrial Area,
New Delhi - 110064

