PRODUCT DATA

PRODUCT NAME : AK-204/ AK-207

PRODUCT DESCRIPTION: AROMA WOODEN FIRE DOORS / AROMA STEEL FIRE DOORS

INTRODUCTION

1. Fire starts without warning and can cause wide-spread damage. A little preventive cost and proper planning can help reduce this damage.
2. Fires can be fought on two fronts: first, by preventive measures and second, by fire-fighting equipments.
3. One of the preventive measures is the use of fire Doors in buildings and others are use of fire resistant Coatings.

These doors perform three important functions as follows:-

a. They isolate the area of origin of fire by creating and maintaining separate enclosed areas. This is known as 'Compartmentation'.

b. They allow controlled unhindered 'Passage of people and goods' between compartments of a building on fire.

c. They allow "Smoke – free" access to the escape routes, both horizontally and vertically, and protect corridors and shafts.

Fire doors also satisfy the legal requirements laid down by the National Building Code on Fire Safety (part IV) and the code of practice for fire safety IS:1642. These require the use of fire doors of specified resistance-30 minutes to 4 hours –in high rise buildings, apartments, hotels, hospitals, industrial buildings, etc, for 'Compartmentation' to limit the potential loss to provide 'personnel safety' by allowing easy escape to people in a building on fire.
These doors of specified rating are required to be fixed at doorways, lift shafts, hoists, shafts, conveyors and other critical openings.
The use of fire doors is mandatory as per Delhi Fire Safety Act 1986.

TECHNICAL SPECIFICATIONS

Fire-resistance in a fire door is expressed in terms of minutes and is required to satisfy the following performance criteria:-
Stability: - The Fire Door shall not collapse during the rated period of resistance under the specified fire conditions.

Integrity: - The fire doors shall not allow the passage of hot gases or flames through the rabbet or the gap between the doors frame and shutters or through any damage developed in the shutter during fire. Smoke escaping from the door on a lower floor of a building on fire could seriously affect the escape of people trapped on the upper floors.

Insulation:-The mean temperature of a fire Door, on its unexposed side, shall not exceed 163 degree C above ambient. Lower temperature ensures quick escape of people and prevents combustion of flammable goods lying on the side unexposed to fire.

Fire doors are governed by the following specifications:-

- BS 476 part 8:- Fire Test on Building Materials and structures.
- ISO 834:- Fire Resistance Test on Elements of Building Construction.
- ISO 3008:- Fire Resistance Test on doors and Shutter Assemblies.
- ISO 3809:- Fire Resistance Test on Structures.

AROMA STEEL FIRE DOORS:AK-204

Aroma Steel Composite fire doors AK-204 is manufactured of 18G M.S. sheet/GI sheet coated with fire resistant coating AK-525 on both the faces and is filled with Fire Resistant filler to achieve a thickness of 60mm for 2 hours fire rating and 80 mm for 4 hours fire rating.

AROMA WOODEN FIRE DOORS AK-207

Aroma Wooden fire door is manufactured from wooden sheet 12mm thick on both sides coated with fire resistant coating or laminates and filled with fire resistant filler to provide 50mm thickness for one hour fire rating. Door frame is manufactured out of hard wood/ teak wood treated with fire resistant compound.

SPECIAL FEATURES OF AROMA FIRE DOORS

1. Available in single shutter, double shutter, single swing, double swing and sliding Configuration.

2. Aroma Fire Check doors are manufactured using special techniques employing high grade tested materials, heat activated sealing Compound, fire-resistant compounds and surface coatings to achieve “Total Protection”, both from horizontal and vertical fire conditions, unmatched by any manufacturer.

3. Aroma fire Check doors are lighter in weight.

4. Internationally, the use of asbestos is banned in the construction of fire doors due to the extremely harmful toxic gases generated when asbestos is subjected to fire. Aroma fire Check doors are completely asbestos free.

5. Aroma fire Check doors consist of properly designed door frames of Steel or Galvanized Iron in case of steel doors and seasoned hardwood or Teak wood in case of wooden Fire check Doors conforming to IS:1141. The fire – resistance is further enhanced by the application of a special Fire- resistant coating.

6. Test experience has shown that the use of a heat- activated sealing Compound is a must even to achieve a 30 minute fire rating . Under fire conditions, such a heat –activated in tumescent (swelling up() seal provides a positive pressure in the gaps between the frame & the shutters. This helps eliminate any distortion which can lead to ‘Integrity Failure' of the door.

Aroma fire doors incorporate proven intumescent sealing Compound which has been tested under severe fire conditions in all types of situations.

During fires, the heat-activated sealing Compound provided in the door assembly, and its design, play a very important role. Therefore, it is essential to install the full fire door set comprising of the door frames and the shutters. If only shutters are procured from us the performance may be compromised. However, where door frames have already been fixed the dimensions, specifications and a sketch of the door frame must be sent to us to assess its suitability for incorporation of a heat-activated sealing compound and for its other fire performance criteria.

7. Aroma Wooden fire doors are normally of flush type with 4mm teak or commercial plywood facing bonded with non-flammable, fire-retardant adhesives.

8. Aroma fire doors are ready to install, fully ‘painted' or ‘polished' in pleasant shades of the customer's choice using special fire-resistant coatings. The “paint” or ‘polish' finish so provided is Acid-, Alkali-, Weather- and stain resistant and extremely durable providing twice the life as compared to conventional enamel paints or spirit/shellac polish.

9. It is desirable that fire doors installed on an escape routes to allow easy escape route should not be “secured”. This will avoid possible delay in opening it by people trapped in the building.

10. In high rise buildings, the fire doors should open outwards towards the escape Routes to allow easy escape. In such a case, to maintain Compartmentation. Aroma fire doors are provided with self-closing devices.

11. Great care should be taken in the installation of a fire door so that the gaps between the frame and the shutters are kept uniform and within specified parameters. The company can install these doors for you or, if you prefer, you can install them yourself with the instructions provided.

12. Aroma fire doors are factory-treated to resist attack from termites & insects. These doors are sturdy & hardly require any maintenance. You can further improve their

Performance:-

A. By periodically checking to see that the intumescent sealing Compound in the gap between the door shutters and the door frame is maintained. Vandalism and accidental damage can affect the performance of the sealing compound. This can be repaired or replaced by contacting us at the earliest.

B. By periodic maintenance to retain the aesthetic appearance of the doors. This should be carried out using only Aroma Fire-Resistant Coatings which help retain class I spread of flame properties.

13. Upgrading the fire rating of existing solid core flush Doors is possible:-
A. by using Aroma Fire- resistant coatings;
B. by providing Aroma Heat-Activated Sealing Compound on door frames and shutters;

c. by redesigning the hardware on doors.

Free advice on up gradation, without any obligation, is available from the company. Please include the specifications and a dimensioned drawing of the door frame, shutters and related hardware with your request.

We will be happy to answer specific queries about any aspect of fire doors not covered here.