

GOVERNMENT OF MAHARASHTRA

No.MFS/36-G/2014/1765

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Date : 15.12.2014

C I R C U L A R

FIRE DOOR

NBC -2005 provides for Fire containment doors to be provided for various levels of safety like 30 minutes or 60 minutes etc.

For Dwelling Unit Separation (Main Door) clause 3.3.1 table 1 S. No (viii) provides for 1 hour fire resistance for Type 1 construction, Type 2 construction, Type 3 construction and Type 4 construction. Under same clause non load bearing partitions provides for minimum half hour fire resistance.

These are mandatory as per Maharashtra Fire Prevention and Life Safety Measures Act, 2006, and thus to ensure that a proper fire door is installed these are to be adhere to IS 3614 (Part II):1992 (Reaffirmed 2002) Metallic and non-Metallic Fire Check doors –Resistance Test and Performance Criteria which is the latest IS Codes as on date for specifying the requirements of fire door.

As per these codes, given below parameters and precautions are to be checked by the Nomination Officer while carrying out the inspection of any premises to ensure Fire, Life and Safety Measures are taken care of as per Maharashtra Fire Prevention and Life Safety Measures Act, 2006

1. As per definition, Fire Door means "A door or shutter provided for the passage of persons, air or things which, together with its frame and fixture as installed in a building, is intended, when closed, to resist the passage of fire and/or gaseous products of combustion and is capable of meeting specified performance criteria to those ends. Insulated or un-insulated.

The door leaves/shutters never give fire performance in isolation. Performance in fire is integrated system performance and whole assembly must be installed.

2. It shall be ensured that "Test Certificate" from Central Building Research Institute, Roorkee, Uttarkhand or from Indian Plywood Industries Research and Training Institute, Bengaluru or from any Institute / Laboratory recognized by Central Government / State Government / Government Undertakings which specifically states that these Fire Doors are tested in accordance to IS 3614 (Part II):1992.

3. It is also acceptable that the test certificate from Warrington Fire Research Centre Ltd UK or from Chiltern International Fire Ltd, UK or from International Fire Consultants Limited UK or any other institute of international repute for door assemblies tested in accordance BS 476 part 22.
4. The owner or occupier should produce Form A from Licensed Agency having valid license for "Passive Fire Protection" and Rules thereunder issued as per Maharashtra Fire Prevention & Life safety Measure Act, 2006.
5. It has to be ensured by the authorities that the report include following information:
 - a) Name of manufacturer;
 - b) A description of the assembly including fixing arrangements of fire door including drawing, exact sizes and components like thickness and the locations of fire door test assembly. The clearance and gaps between doors and frame shall also be fully recorded;
 - c) Rating of the fire door mentioning insulation and integrity rating;
 - d) Furnace time/pressure chart and temperature curves actually attained during heating conditions;
 - e) Time/temperature results; and
 - f) Any other information about the performance
6. It has been brought to the notice to this office that certain builders are just providing door shutters/ door leaves claiming certifications based on Bunsen burner/flame test or other non-related tests which are invalid as these certificates are neither as per BS 476 part 22 or IS 3614 (part 2). These certificates are invalid.
7. Obtain certificate that the door assembly is supplied by door manufacturer containing every component as was used in the original testing done to obtain the fire rating certification. Make sure the door frame fitted on the wall and the door shutter/leaf has marking of the door manufacturer and matches to the dimensions as mentioned in certificate. Also keep on record the test certificates on locks and hinges provided by door manufacturer. They should be fire rated for same or more minutes as the door assembly.
8. The door assembly cannot exceed the size it was originally tested and documented in the test certificate. However if the test results are 20% higher than the rating for insulation and integrity the following increase in sizes are allowed.
 - +15% in height or
 - +15% in width or
 - +20% in area
9. Check the intumescent seals are provided on all 3 sides of the frame/shutter as shown in the test certificate. The bottom side of door leaf may or may not be provided with a drop down seal but an intumescent seal is must to control spread of smoke.
10. Give preference to Green constructions. If the core, the skin and the stiles/rails are components of wood products which are recyclable and bio degradable with NO inorganic material may be preferred. Some doors are made with many types of inorganic material which can eventually cause landfill and recyclable concerns

(Magnesium oxide board, Calcium Silicate board, Gypsum Board, Cement board, Fiberglass sheet, Promat sheets etc).

It should be noted that fire rated performance is combined integrated performance of the door set/door assembly meaning the doorframe + door leaf + hardware (having the right density of seasoned timber, the species used for stiles, rails and door frame and the right type of core within + skin + glue for bonding + lock + hinges + Screws or any other accessories mounted+ Intumescent strips and intumescent sheet claddings on the metal parts used like locks and underlay for hinge flaps).

All the enforcing agencies such as Urban Local Bodies and Special Planning Authorities should ensure that the detection systems are strictly adhering to the said Codes.

Public Works Dept. and the Engineering Dept. of the other Government and Semi Government Organizations responsible for the designing and commissioning of the Fire Door should also take the note of the same to avoid any violation.

This circular is available on website: www.mahafireservice.gov.in



(M V Deshmukh)
Fire Adviser to Government

(1) Copy submitted to the Principal Secretary (I), Urban Development Department, Government of Maharashtra, Mantralaya, Mumbai for favour of information with request to issue suitable directives in this regard to all Planning Authorities.

(2) Copy submitted to the Principal Secretary (II), Urban Development Department, Government of Maharashtra, Mantralaya, Mumbai for favour of information.

Copy forwarded with compliments to:-

- (1) The Secretary, Public Works Department, Mantralaya, Mumbai 400 032
- (2) The Metropolitan Commissioner, MMRDA,
- (3) The Commissioners of All Municipal Corporations,
- (4) The Chief Executive Officer, MIDC,
- (5) The Managing Director, CIDCO,
- (6) The Vice President, MHADA,
- (7) The Managing Director, MIHAN
- (8) The Vice President & MD, MSRTC
- (9) The Managing Director, MAHAGENCO
- (10) The Managing Director, MSEDCL, Prakashgarh, Bandra (E), Mumbai-400 051

Copy to:

- (1) All Chief Fire Officers or Officer-in-charge of Fire Services of all Urban Local Bodies and Special Planning Authorities.
- (2) The Chief Officers of all Municipal Councils.

Copy to Guard File.

Copy to www.mahafireservice.gov.in.