

Metal Fire Rated Glazed Door with 30 Mins Insulation

Standard & certification:

Hollow metal Insulated fire rated Glazed doors as per IS:3614 (Part II) or EN1634- 1:1999, tested for 120 minutes of stability, integrity and 30 minutes insulation in accordance with the procedures laid down in BS EN 1634-1:2014+A1:2018. Pressed galvanized steel confirming to IS 277.

Frame:

Door frame section shall be 50 X 60 mm on horizontal side and 35 X 60mm on vertical sides, made out of 1.6 mm (16-gauge) thick GI sheet with Zinc coating not less than 120gm/m². Frames shall be constructed using butt/mitered joints and assembled at production site. Each frame shall be fitted with smoke seal around the perimeter. All hardware cutouts shall be accurately mortised, drilled, and tapped to accommodate the specified fittings. Frames shall be equipped with back plate brackets and anchor fasteners, allowing secure installation in finished, plastered masonry wall openings. The internal cavity of the frames shall be filled with mineral wool.

Shutter:

The door leaf shall be 60 mm thick, fully flush, and of double-skin construction consisting of vertical styles, top rail of 60 X 60mm wide and bottom rail of 110 X 60mm. Fabricated from a minimum 1.6 mm (16-gauge) galvanized steel sheet with Zinc coating not less than 120gm/m² and the core infilled using 96 kg/m³ high-density mineral wool insulation. All door leaves shall be factory-prepared to accommodate the specified hardware and shall include necessary reinforcements for hinges, locks, door closers, and panic devices. The vertical edges of the leaf shall feature an interlocking design with a bending radius of 1.4 mm. For double door configurations, integrated astragals shall be provided on the meeting stiles of both active and inactive leaves.

Glass:

The fire-resistant glass shall be AIS make "Pyrobel-T", manufactured in India. It shall be 12 mm thick, clear, non-wired, and heat-soak toughened, incorporating a single-chamber intumescent gel-filled interlayer. The glass shall be symmetrical (bi-directional) in performance and offer a visible light transmission of 87%, a U-value of 5.5, and a sound

reduction of 38 dB. It shall comply with Class 1(B)1 category for impact resistance as per EN 12600 and be tested for UV resistance as per EN ISO 12543-4. The glass must be produced in a TÜV and Intertek-audited facility and shall bear a permanent marking indicating its fire resistance rating of 120 minutes for integrity (E120), 120 minutes for radiation control (EW120), and 30 minutes for insulation (EI30), along with the source and year of manufacturing. The maximum glazing size shall conform to the dimensions validated by test evidence. Furthermore, the glass shall be EPD (Environmental Product Declaration) verified in accordance with EN 15804 and ISO 14025, with its life cycle assessment based on Cradle-to-Gate system boundaries. It shall be RoHS compliant, and include a recycled content declaration, comprising up to 11% pre-consumer cullet and less than 3% post-consumer cullet.

Finish:

All doors and frames shall be powder coated and shall have passed minimum 500 hours of salt spray test.