

Specification for 2 Hour (FD 120 ID) Insulated, Flame and Smoke check 'tufwud' brand Composite Lead Lined Fire Check Door

SI No	Description
	<p>Providing of 120 min fully insulated (FD 120 ID) Fire rated lead lined doors system for Integrity and Insulation Criteria as per the IS: 3614:2021 (ammendment 2023) and BS: 476 part 22 tested at any Govt of India undertaking lab, with standard heating conditions as specified in IS 17518 (Part 1) to achieve the required integrity and insulation (i.e. to restrict the heat radiation, temperature rise on the non fire side to the maximum of 140° C above the ambient temperature on the exposed surface of the shutter. The fire doors are tested with NCBN technology ("Non Combustible by Nature"). and tested for radiation at NTH in accordance to AERB norms.</p>
	<p>Door Frame: Providing & Fixing Frames for Lead Lined Fire resistant door shutters Engineered treated hardwood / DVL Frame densified and pressure treated with fire retardant chemicals in vacuum impregnation vessel under 160 PSI pressure as per IS:401 and kiln seasoned to moisture below 15% as per IS:1141 of section 140 X 70 mm with 45mm thick two layered 3mm Lead Line Sheets with 10mm overlap from either side & spray quoted with 2 coats of Intumescent paint of minimum 200 micron, with 1 row of non brush type intumescent strip (imported) of size 10mmx4mm concealed in the groove of the Frame for fire and hot and cold smoke sealing, etc. complete as per direction of Engineer in Charge</p>
	<p>Door Shutter: Providing & Fixing of 57mm thick asbestos free composite, Integrity and (Full) Insulation Lead Lined Door Shutter with flame guard of 120 minutes (FD 120 ID) IS3614:2021 (ammendment 2023), Deurcore comprising of 2x9mm Calcium Silicate boards, Chemical treated internal timber with Fire retardant chemicals in pressure impregnation vessels under 160 PSI pressure as per IS:401 and kiln seasoned to moisture below 15% as per IS:1141 frame work of 100x30 mm with 30mm thick infill of ceramic fibre (density 128 Kgs/CMT) vermiculite mix, 3mm thick Lead Sheet on one side faced & 3mm Fire retardant High Density Fibreboard, internally lipped with hardwood beading, and pasted in Hydraulic Press under 50 tonnes pressure, spray quoted with 2 coats of In-tumescent paint of minimum 200 micron, and with 1 row of non brush type intumescent strip (imported) of size 10mmx4mm concealed for fire and smoke sealing in the grooves in the shutter on all edges except bottom, without any external lipping.</p>

Specification for brand Radiation check Lead Lined Door

SI No	Description
	Providing of Lead Lined Door system with 120x60 mm Hardwood Frames, interlayered with 3mm lead and 44mm Solid core flush door shutters conforming to the I.S. specification 2202-1991 (specification for wooden flush door shutter – solid core type), interlayered with 3mm lead and tested for radiation at NTH in accordance to AERB norms.
	<p>Door Frame: Providing & Fixing Frames for Lead Lined door shutters Engineered treated hardwood / DVL Frame densified and pressure treated with fire retardant chemicals in vacuum impregnation vessel under 160 PSI pressure as per IS:401 and kiln seasoned to moisture below 15% as per IS:1141 of section 120 X 70 mm with 45mm thick two layered 3mm Lead Line Sheets being overlapped from either side, spray quoted with 2 coats of Enamel paint after one coat of white wood primer of minimum 200 micron etc. complete as per direction of Engineer in Charge.</p>
	<p>Shutter: Supplying & Fixing of 44mm Solid core flush door shutters conforming to the I.S. specification 2202-1991 (specification for wooden flush door shutter – solid core type). 32mm Wooden structure of Engineered treated hardwood or Pinewood of at least 50mm width, top and bottom rails of 75mm width, with filler material without any gap of 1st Class Hardwood, or pine wood, all chemically treated for termite and borer resistance as per IS 401:2001 under minimum 150 PSI pressure, and seasoned as per IS 1141: 1993 upto desired moisture level as per IS 287, with one side 3mm HDF & other side 3mm lead & 6mm BWP ply; all hot-pressed with Phenol Formaldehyde resin, internally lipped with hardwood beading, and pasted in Hydraulic Press under 50 tonnes pressure, spray quoted with 2 coats of enamel paint of minimum 60 micron.</p>