déanta



Building Regulations for fitting of fire doors

Where should fire doors be fitted

• The guidance is that building should be divided into compartments protecting escape routes such as corridors and stairs.
• In domestic dwellings above 2 levels, every door leading to the stair well (at all levels) must be a fire door, where the door leads to a habitable room (i.e. not to a bathroom or w/c)
• Fire doors are also required in loft conversions between the house and an integral garage and between the business and residential mix in a household dwelling.
• For non-domestic dwelling guidance is divided between horizontal and vertical escape routes

What Fire resistance period is required

In a compartment wall that separates buildings the fire door must match the same as the wall containing the door with a minimum of 60mins, in all other cases a 30min door is required.

Where are smoke seals required

Smoke seals are recommended on doors approaching or protecting escape shafts such as stairs and corridors and where a door separates a private room to a corridor or common space such as a flat front door. Smoke seals are also recommended on doors that are in corridors that lead to dead end.
Where smoke seals are required the threshold are to be no more than 3mm



Access and use of buildings

Minimum door widths

• For domestic situation the minimum clear door opening when passing straight on is 750mm which increases to 800mm if passing through the doorway from a corridor that is 900mm
• Non-Domestic situation a minimum opening of 800mm when passing straight on and will increase to 825mm if passing through the doorway from a corridor that is 1200mm
• Access through an external door requires 1000mminimum

Provision of glazed panels

Where required vision panels should be fitted between 500mm and 1500mm from the floor although a division is required between 800mm and 1150mm again from the floor, Safety fire glass is required when the glazing is under 1500mm from the floor level or when the area of the glazing area is greater than 250mm for both domestic and non-domestic.

Facts about fire door certification

How safe are your fire doors

Fire doors play a very important role in building safety in the event of a fire they compartmentalize the building, and this hopefully will allow people time to get out of the building or provide safety in an area until such time as they can be rescued. Many manufacturers claim that their products are fire doors and they will pass the test and are suitable to use but have they passed the correct test? And if they have how do they prove it?

In the UK and Ireland the doors should be tested to BS476 part 22 or BS EN1634 part 1.This test will prove how the door has reacted in the event of a fire and gives test evidence that the manufacture has results of how the door performed to achieve the fire testing time.
It is also very important the manufacturer can demonstrate that the doors will be made in the same standard in the future.

Ways of showing door performance

Here are the three most common ways manufactures demonstrate their compliance

1. ***Self-Compliance***

Where a manufacturer claims that the doors are designed manufactured or tested to a certain standard These claims are no guarantee that the doors will perform or will continue to perform without testing

2. ***Test Certificates***

Where doors are supplied, and this proves the doors have been tested and certified but be aware of the changes that have been made and this may nullify the cert (changing sizes glass opes double doors.)

3. ***Third party Certification***

This is the only real way to verify the doors are correctly tested Third party testing verifies that the doors construction quality design and performance has been tested. The management and the production process are audited to ensure consistent manufacturing standards are adhered too

What to look for on a Fire Cert

Being handed a cert for a fire door does not mean that it is a fire door you must check the door leaf and ensure that it is the correct door design i.e. paneled door or flush type door.
You must ensure that the correct assembly is adhered to, The type of frames hinges locks and door closers. Where a door is a glazed door that the correct installation is adhered too, and the openings are correct in size and what is their parameters. The types of beadings, glass etc. Where a door is a single leaf or a double door that the cert is extended to cover that and allow changes to take place Using two doors as a pair may not be certified all these items must be adhered too

All fire certs and global assessments can be down loaded from our website www.deatadoors.ie

Test evidence and global assessments

• Test evidence is provided in the fire certificate this information tells how the door was constructed the type of materials that were used to make up the door assembly from this evidence the global assessment allows the parameters of the doors to be changed in size apertures changes in glass opes. The correct installation of the glass and guidelines of sizes of openings that could be fitted. The type of beading intermissent beading gasket for glass advising of tested and also recommending suitable alternatives that are available.
• It also contains the type of hinges locks door closers intermissent strips that are recommended that can be used and the correct way of fitting of the door advising of the minimum size of the door frames
• A fire cert is only relevant to the door that has been tested on the cert A global assessment is the most important piece of testing that allows any changes and extends the scope of the testing.

Summary

1. Make sure you only specify or use third party fire accredited fire doors frames and associated items to ensure correct fire safety
2. Check all components used with the door are compatible or suitably certified
3. Check that the cert is referring to the doors you are using, and a global assessment is available if you are making any change to the size of the door other than the size on the original cert.

déanta

Fire DoorSeals

FACTS ABOUT FIRE DOOR SEALS

Fire doors play a crucial role in restricting the movement and the spread of fire throughout buildings.
For a door to work correctly the door must be able to move freely and for this to happen a gap is required all around, if the gap is too wide then the door won't work correctly and could speed up the movement of fire and smoke.
Intermissent seals play a vital role in the restricting of fire and smoke and help to reduce deaths and injury and damage to properties.

When to use fire seals

Building regulations state where you have a fire door you must use the intermissent seals and where you could have smoke spillage you must have smoke seals fitted. You can acquire smoke seals and intermissent seals combined as one or you can fit two different seals fire doors are designed by the time required i.e. 30min 60mins etc., different doors configurations may require different sealing solutions, single doors and double doors behave differently and may require different sealing never assume that single and double are the same always consult the certification.

The Door gap

In general, the gap on the door must be no more that 3mm and not less than 2mm

Glazing panels

Intumescent fire-resistant seals are also used as part of a glazed system which secures the seals

Intumescent fire seals

• Fire seals contain intermissent material this material expands when it is heated when a fire door is exposed to heat these seals expand to many times their size and sealing the gap between the door and the door frame to stop the fire from spreading, Intumescing seals are normally set into the door frame and can also be fitted into the door as long as they are non-obtrusive to everyday knocks
• Fire seals from different manufacturers can be made from different material and may react at different temperatures so ensure never to mix seals.
• Combined fire and smoke seals
• These seals incorporate both smoke and fire seals into oneunit.

Specifying seals

When specifying seals, it is important to check the fire door cert and to use a seal that was recommended by them or an approved fire seal that has been tested and approved for the type of door you are providing.

Glazing of 30minute fire doors the Facts

Many Timber doors contain glazed opening to add as a design feature or as a building requirement to comply with regulations. However, when it is a fire door all the elements must be capable of withstanding a fire, they must not re- duce the overall effectiveness of the door from withstanding the fire.

This sheet is intended to provide some basic essential information to specify and correctly fit glazed apertures in 30min fire doors. It tells you to what to look for and to ensure you are using the correct life protecting materials Most fire doors start as a fire leave, by adding a glazed opening its adds safety in everyday use and in the event of a fire it aids in the detection of smoke and fire whilst providing visibility to potential escape routes.
The size and the positioning of the glazed unit is very important, and this has an ultimate bearing on the way the fire assembly may react in the event of a fire.

Aperture Size

• Please refer to the Deanta Global assessment to ascertain the correct size of the opening and the amount of opes you may require IF YOU ARE INSTALLING A GLAZED OPENING.
• In the global assessment it specifies the amount of openings locations of glazing type of glazing system and the correct fitting instructions

Glass

• A specialist fire glass must be used and must be certified for the type of door it is going to go into, there are 4 main types of glass Georgian wire glass, Special tempered toughened glass, special glass composite and laminate glass with reactive layers.

The global assessment specifies:

• Type of glass, special glazing requirements they type of beading edge detail, maximum dimensions of the glass.

Beads and fixings

• The fixings and the beads are vital in holding the fire glass in place for the proper amount of time required.
• Bead material to ensure the proper species or similar equivalent is adhered too.
• Bead size and shape there must be enough material to char throughout the fire test angled beads preform best.
• Frequency the type of bead and sizes and the correct spacing is adhered too.
• Angle of the fixing
• Glass edge cover and clearances.
• Glazing seals
• Whatever glazing medium is used it must hold test certification for the particular sized panel and application within the door design and be appropriate with the chosen type of glass.
• The seals on the glass may take the form of preformed ridged or flexible strips
• Pre formed channels to wrap around the edge of the glass
• Gun able mastic compounds
• Ensure the product you are using has been tested and certified for the application you are using it for

Types of Ironmongery for fire doors

Facts on ironmongery for fire doors

Just like a fire leave it is essential that all the ironmongery will perform its part in the event of a fire
A fire door is not just a fire leaf it is a combination of items frames seals ironmongery closers hinges and handles
All these items are crucial in the makeup of a fire door assembly
The door will not work in the event of a fire if all the items have not been fitted properly
All ironmongery has to be certified and compatible with the door you are fitting too if not the door will not work correctly

Selection of ironmongery

- Fire doors are tested as a completed assembly.
- The specific ironmongery may only be reliable and compatible with the door that was tested
- All certified ironmongery products are issued with a test certificate number
- Fire door leaves and ironmongery are often sold separately
- Then they are bought separately this is where the danger is you must ensure that the products are compatible, and the ironmongery has been testing on the type of door you are using. This is crucial.

Maintenance

- ***Hinges***

Ensure there is no wear and tear on the hinge any black marks or oil leaks indicate wear and they must be replaced immediately

- ***Door closing device***

Check that the device is working correctly and check that the door is wedged open and left with any item, Check that the door opens and closes easily and is not binding with the floor covering, open the door 5degrees and check it closes correctly and again with 90 degrees and it engages with the latch. A closer should take approx. 10 seconds to close a 90-degree open door ensure it does not slam and if so, adjust the speed as necessary.

- ***Locks and lever handles***

Check that all levers return to the horizontal after use and ensure the latch bolt is engaging smoothly and completely to the strike plate, clean any metal shaving adjust and lubricate and replace if necessary.
Ironmongery
Some hinges and door closers may need lubrication (check manufactures recommendations)

- ***CE MARKING OF IRONMONGERY***

CE marking is required under the Construction Products Directive To conform that building products which are place on the European market met the essential requirements that are set out in the CPD.
Mechanical stability, Fire Safety, Health and environmental safety, Sound protection, energy efficiency. CE marking allow a simple route to satisfy the CPD which apply the directives to the EU.
CE marked hinges tested to BS EN135 Should be used on fire smoke doors and on all escape routes.
CE marking on all closing devices tested to BS 1154/55/58 HAS BEEN REQUIRED SINCE 1994

Who passes on the information Fire Doors

• The contractor is responsible for handing over the correct information to the client and their agents or appointed representative and this may vary from job to job from Architect Surveyor Engineer who ultimately has the final sign off on the building.
• Please note the word or term FIRE DOOR relates to a completed door assembly not just a fire leaf.
• Fire Doors once fitted correctly play a vital and essential role in fire safety to all who use the building.
• A fire door is made of parts that when put together ensure that the fire door assembly will act in a way to allow people or person time to vacate the building, it is important that the fire door assembly is put together in same manner as it was tested ,door leaf frames hinges andironmongery.
• Failure to use the right components can and will have a detrimental effect on the doors performance and puts one in safety.
• Once the door is assembled it is essential to give all the relevant information on the components and parts used in the assembly to the person who will be responsible for the up keep of these doors as it will be essential in the future maintenance and up keep of the doors

Checklist of the details required for the handover

1. A drawing of building showing every fire door and their ratings required
2. A copy of the fire cert or the global assessment which is ever relevant to the project
3. Details of the frame and the door stop type of material used and how it relates to the cert
4. Details of the Hinges CE Marked door closers and are they relevant and certified to be used on the type of door that is supplied (using door closers certified for metal doors cannot be used on wooden doors).
5. Details of any glass installation and type used
6. A maintenance information sheet for all products used in door assembly if required
7. All doors should be inspected yearly so an agreed maintenance/inspection period