

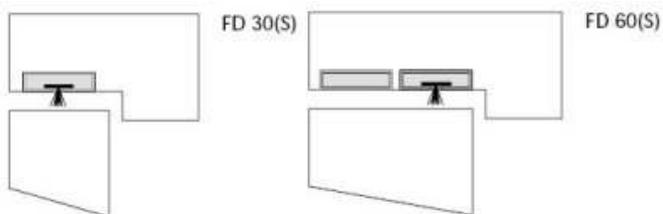
What Makes a Fire Door

Fire doors are composed of a dense wood with a solid core. The door leaf or the frame is also fitted with intumescent strips (and often smoke strips) which will expand with the heat of a fire to seal the gap between the door and frame in order to prevent the spread of fire and smoke for the maximum time possible.

Sometimes fire doors are not composed of a solid core but are built up with honeycombed centres and coated with an intumescent paint or laquer in order to achieve the necessary fire rating.

It should be borne in mind however that it is not just the door that should be considered, as the frame of the door and the door hardware must also be able to resist the spread of fire for as long as required.

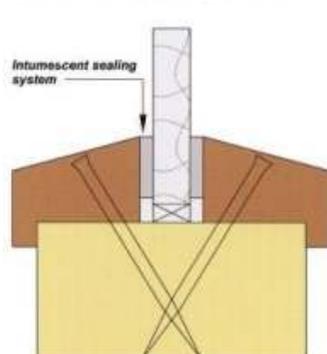
Shown below is an example of an FD30 fire door with an intumescent strip and smoke seal and also an FD60 with two intumescent strips which are required to provide the longer period of fire resistance.



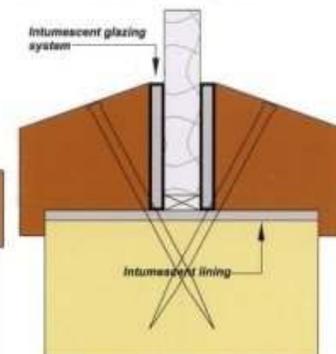
It is also possible to glaze fire doors. However these must have fire resistant glass, in most non-domestic cases this glass is normally re-enforced with wire. Another factor that must be considered if using glazed fire doors is that the seal around the glass must be composed of an intumescent material and that glazing beads are fitted securely to avoid weak points through which hot vapours, smoke or fire can travel.

Shown below are examples of how fire doors are typically glazed:

Typical Half Hour glazing system.



Typical one hour glazing system.



The positioning and selecting of fire doors is crucial to fire safety so please ensure that the correct rating of certified doors are used. If you are in any doubt please ask to speak to one of our offices or try to consult your agent / architect or an expert.

Please note that this leaflet is merely intended to provide supplementary guidance. Should you have any doubts about whether any work requires a building warrant or whether it complies with current regulations please consult the Building Standards Section at the number shown below.

Please also note that works of the nature included in this leaflet may still require a Building Warrant.

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Building Standards

Domestic & Non-Domestic Fire Doors



The purpose of this leaflet is to provide additional guidance on the installation of fire doors in accordance with the current building regulations.

Please take one.

Should you need further assistance then please do not hesitate to contact one of our Building Standards officers.

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Why Are Fire Doors Required?

In the event of a fire, the normal means of escape from a dwelling in the event of a fire will be by way of the internal stairs or other circulation areas. Therefore the routes of escape for building users must be able to provide protection from a fire long enough for the users to escape.

In domestic circumstances it is necessary for new dwellings or any extensions, alterations, or conversions which result in a new room in a third story or above have to comply with the requirements for a protected enclosure to ensure there is a safe escape route in the event of a fire. This means that fire doors must be used on all circulation routes and rooms, with the exception of bathrooms, which open into this protected area.

In non-domestic situations it is always necessary to have fire doors where there are protected escape routes. The requirement for protected escape routes will depend on; whether the building is single or multi-storey, the number of occupants and other factors.

Fire Doors Must Be Certified

Fire Doors must always be certified. So if you are planning to adapt doors or are planning to construct your own, then these doors must be certified by an accredited testing body.

Certified doors and door-sets should not be altered in any way. Otherwise they are no longer covered as a certified unit and should then be re-tested in order to be acceptable.

Identifying Fire Doors

It is important to identify fire doors correctly to ensure the correct rating of fire door is used (more information on ratings required can be found later in this leaflet). If you are unsure as to what duration of fire door to use please ask one of our building standards staff for advice

The fire classification of a door can usually be found on the door leaf itself (as shown to the *right*) or in the frame of the door.



Examples of the certification markings which can be found on fire doors can be seen below:

Timber Fire Door Certification Scheme

Outer colour - Period of fire resistance (mins)

Inner/Tree colour - Status

Unique member's certification number

Outer colour - 30 60 90 120

Inner/Tree colour - when fixed to door

Approved door (FD30 & FD60 only) Intumescent not yet fitted

Approved door Intumescent in door factory fitted

Approved frame to match door: All intumescent to door and frame fitted

Inner/Tree colour - when fixed to frame

Approved factory fitted glazing

Certified factory hung doorset

Certified installed doorset

Examples of certification labels:

- FD 30 (Green)
- FD 60 (Blue)
- FD 90 (Yellow)
- FD 120 (Red)

Shown *above* is an example of Trada Q-Mark certification plugs from their Timber Door Certification Scheme.

Shown *right* is an example of BWF Certification Labels used by the British Woodworking Federation.

Shown below is the former system used by the BWF. Although it is no longer used it may still be found on some older installations.

B.W.F. Scheme for identification of fire resisting door leaves in accordance with BS 476 Part 8: 1972.

Fire Resistant Ratings	Intumescent Necessary	Intumescent Not Necessary Green Core
30/20 (White background)	Red Core	Green Core
30/30 (Yellow background)	Yellow Core	Yellow Core
60/60 (Blue background)	Blue Core	Blue Core
With specified Intumescent in frames or doors 30/30	White Background Blue Core	Blue Core

Remember - Red Core or Blue Core means Intumescent must be fitted in accordance with manufacturer's instructions either in the door or frame. Green Core means you can carry on fixing as Intumescent has been fitted under lipping. TRADA having similar coding system with a tree shape as centre core.

Shown below is a larger example of the current certification system used by the BWF.

CF 999 A456789
Tel: 01999 123456

Fire Door Certification invalid unless installed and maintained exactly in accordance with Manufacturer's instructions and this label is retained unmarked and not removed.

CERTIFIED FIRE DOOR

Company's Name

Company's Own Telephone no.

CERTIFIRE certificate No.

Sequential no.

Unique number - Full traceability

For further information on certification types please check the BWF or Trada websites, or alternatively you could ask to speak to one of our officers.

What Door Rating Will I Require?

The fire door rating level required and also the positioning of the doors can vary depending on the type of building it is to be used in (i.e. domestic or non-domestic), the application of the building, the number of building users or occupants and various other criteria.

For example, in most circumstances an FD30 door would be suitable for most instances for domestic buildings. However in a protected zone in a non-domestic building, doors of at least 60 minutes duration are required