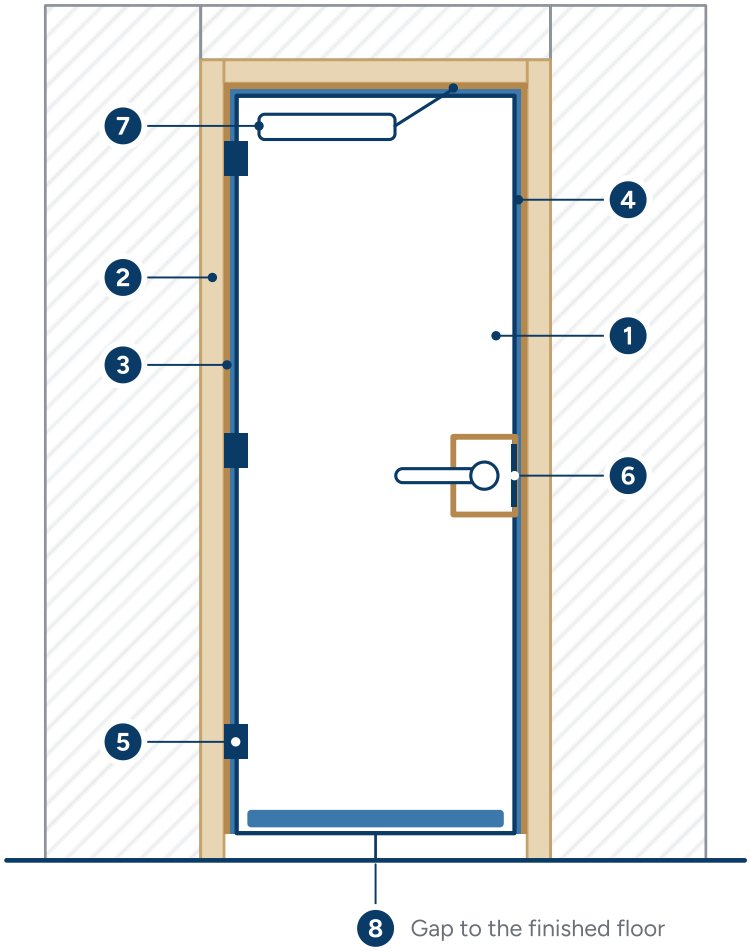
Fire door guide

A fire door is **tested as a whole**. The rating belongs to the door, frame, seals, hinges, lock and closer together, as the door's certificate lists them.



1. **Door leaf.** Tested to one rating: FD30 or FD60.
2. **Fire frame.** The same rating as the leaf. The certificate names its timber and size.
3. **Fire seal.** An intumescent strip that swells in heat and closes the gap round the leaf.
4. **Smoke seal.** Seals against smoke at the edge and under the door. Doors marked S have it.
5. **Hinges.** Grade 13 as standard, with intumescent protection. The certificate sets how many.
6. **Lock.** One the certificate lists, with intumescent protection round it.
7. **Closer.** Shuts the door from any angle.
8. **Gap under the door.** Never more than the certificate allows.

FD30
Holds back fire for 30 minutes.

FD60
Holds back fire for 60 minutes.

S
With smoke seals, as in FD30S.

E30, EI30
The European way of writing the same idea.

Tested with the right door

The certificate names every part. Check that it lists:

- **The door** and its rating.
- **Single or double door.** A double door needs a certificate that covers double doors.
- **The hinges:** make and code, grade, how many, and the pads.
- **The closer.**
- **The frame:** the same rating, its timber and size.
- **The seals:** fire seal, and smoke seal on an S door.
- **The lock** and the protection round it.
- **The largest gaps:** under the door, at the sides and at the head.

A part the certificate does not list is not covered. Where the certificate is silent, we say so and confirm it with you before we quote.

Seals, gap and hinges

Seals

Fire seal

An intumescent strip in the frame. In heat it swells and closes the gap between door and frame. The certificate names its size: 15 × 4 mm most often.

Smoke seal

Doors marked S (FD30S, FD60S) add a seal against smoke at the edge of the door, as the door's certificate lists it.

Drop seal

A seal in the bottom of the door that lowers when the door shuts. On a smoke door it allows a bigger gap under the door.

Fit every seal the certificate lists. Leave one out and the fire evidence no longer applies. We protect the seals and ironmongery while we spray your doors in our Dundalk workshop.

The gap under the door

The undercut: from the bottom of the door to the **finished floor**. The certificate sets the largest gap. It sets one for the sides and the head too.

Fire door	Largest gap	Smoke-sealed (S)
30 minutes, single	10 mm	3 mm, or 10 mm with a drop seal
30 minutes, double door	5 mm	3 mm, or 5 mm with a drop seal
60 minutes	6 mm	3 mm, or 6 mm with a drop seal

Our standard 18 mm gap is for doors that are not fire doors. These figures are for flush fire doors, from the installation instructions of the doors we supply. Another door can differ: its certificate decides.

Hinges

A fire door hinge is wholly non-combustible, with a melting point of at least 800 °C, to I.S. EN 1935. The grade says how much door the hinge carries.

Eurospec ball bearing hinges, 102 × 76 × 3 mm, for timber fire doors

Grade	Carries up to	Approved for
Grade 11	80 kg	FD30
Grade 13	120 kg	FD30 and FD60

- **Our fire doors start on Grade 13.**
- **How many.** Three is usual. Some certificates ask for four or more. The certificate decides.
- **Pads.** An intumescent pad behind each hinge, 1 mm or sometimes 2 mm. The certificate says which.
- **The named hinge.** One that looks the same is not covered.

Lock

A lock the certificate lists, with the intumescent protection it states.

Closer

Every fire door needs a self-closer, except cupboards and locked service ducts.

Double doors

A single door's certificate does not always cover a double door. Check that it does.

In the Altello Doorset builder a fire door shows the parts approved for it and flags anything outside. We give you the fire evidence for each door. Questions about a certificate: info@altello.ie or +353 (0)42 942 6020.

Sources: Technical Guidance Document B, Volume 1 (2024) and Volume 2 (2017), I.S. EN 1935, and the fire test reports and installation instructions of the doors we supply. Your approved fire safety design can ask for more.