

Design of fire doors

Options of door edges

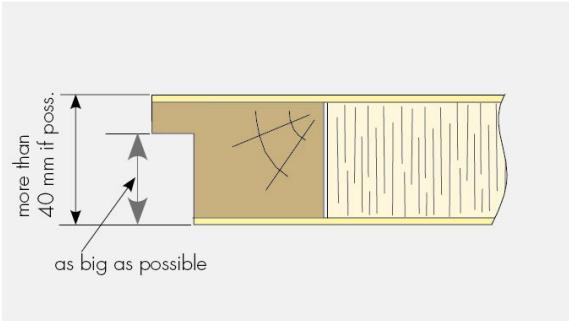
Flat edged door :

- most suitable for fire doors

Rebated door :

- bigger door thickness should be chosen
- rebate depth should be as big as possible

Thickness of door leaf / Rebate depth

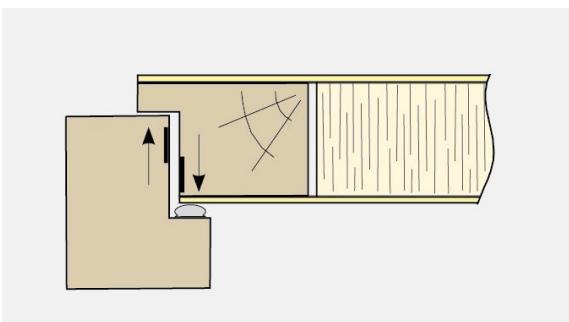


Door thickness: as thick as possible

Rebate depth: as deep as possible

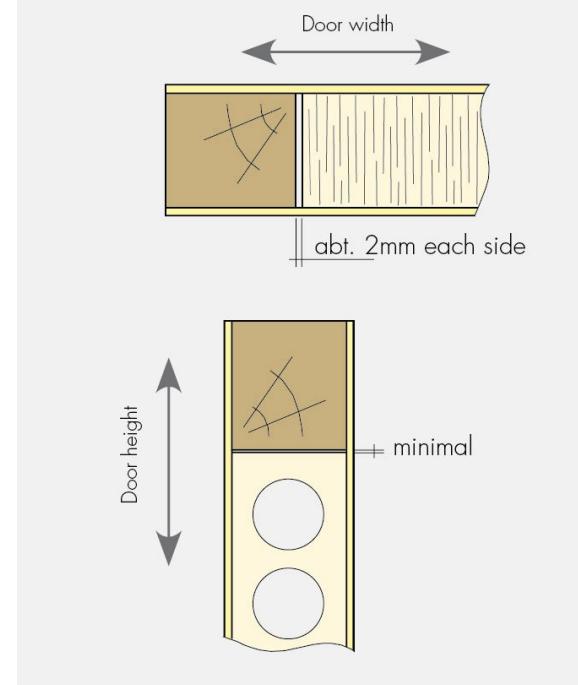
Rebate: standard rebate (12.5 mm)

Positioning of intumescent materials



Intumescent can be placed in the door leaf or in the frame. In both cases it should be positioned quite near to the outer edges.

Gap between core and internal frame



Different gaps between core and internal frame :

- stile: gap of about 2 mm each side
- rail: gap as small as possible

Humidity and structure of components

- all timber components : as dry as possible
i.e. : max 9%; if possible 7 to 8%
- annual rings : standing cht eng small annual rings (weight controll)
- higher specific weight :
 - slower burn-off (mm/min)
 - bigger distortion possible