

# Guideline – Fire resistance upgrade of cultural heritage doors

**Older wooden doors can be one of the weaker points with regards to fire resistance in apartment buildings. This guideline proposes how glass, protective boards, sealing lists, hardware and door frames can be mounted to the door to be expected to achieve a fire resistance of approximately 30 minutes (as if the door would be fire resistance tested).**

These types of older doors typically have a thickness of 40-50 mm, with glass on the upper part and a thinner wooden door panel on the lower part. For antiquary reasons, the interventions on the doors should be as little intrusive and as reversible as possible. Different solutions for mounting of fire resistant glass, gypsum boards and glazing lists were tested.

The main conclusions from the fire tests are:

- Glass must have a minimum fire resistance rating of 30 minutes (integrity and insulation) and be securely fastened with steel frames or steel angles.
- Thinner parts like fielded wooden panels can be upgraded with stone wool and 12.5 mm robust gypsum boards.
- Both intumescent strips and silicone gaskets must be mounted around the door leaf
- The gap between the door frame and the wall must be sealed using stone wool and fire sealant.

You may find the full FRIC report here:

[www.fric.no](http://www.fric.no)

# FRIC

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