

## BALCONY HATCH LADDER WITH FIRESTOP

Meets the EI60 fire requirement **STF**

### 1. Picture of the product



Figure 1. Hatch on the balcony floor



Figure 2. Inside of the hatch



Figure 3. Bottom cover on balcony ceiling



Figure 4. Hatch when opened

### 2. Product description

The hatch ladder is used when the safest possible emergency exit route from the balconies is needed. When the building is tall, evacuating through an external escape ladder requires skill and courage that most people do not have. The hatch ladder is recommended for use in buildings with more than 4 storeys when an external emergency exit route is needed. The hatch on the balcony floor and the ladder that opens from the hatch are used for evacuation to the underlying balcony through the hatch ladder. Typical buildings for use include apartment buildings and commercial properties. Emergency exit is arranged for apartments if people cannot be rescued using the fire department's ladder truck, if the ladder truck takes too long to arrive or if the ladder truck's ladder is not long enough.

## 2. Technical information

- The balcony hatch ladder has been fire tested by VTT Technical Research Centre of Finland Ltd, and it has been determined to meet the EI60 fire compartmentation requirement. The structural solutions are designed to prevent the spreading of fire from one balcony to another through the hatch.
- The 600 x 600 mm frame is placed in the opening on the balcony slab (dimensions 620 x 620 + 3/-0 and squareness tolerance 2 mm/m). The sides of the opening are straight.
- In terms of the placement of openings, it is recommended that the hatches of balconies on top of each other are not placed at the same place.
- The standard hatch ladder can be used in slabs thicker than 210 mm. The ladder must be cut shorter if the slab is thinner than this.
- The slab must be even. It may tilt, but only in one direction.
- Special attention must be paid to the intactness of the opening's bottom edge. The bottom edge must be intact with no dents or breaks. Any dents and breaks on the bottom edge must be repaired already at the prefabricated element factory.
- If the instructions have been followed, the finished ladder and frame can be placed into the prepared opening with no need for grouting.
- The 600 x 600 mm hatch size is the size required for access hatches (Nat. Building Code F2) and it is generally used.
- The fire class of larger hatches is assessed on a case-by-case basis, but it is typically EI60.
- In terms of placement, it should be observed that the bottom cover protrudes approximately 40 mm from the bottom surface of the balcony slab. The bottom cover may prevent balcony glazing from opening, if it is not considered during planning.

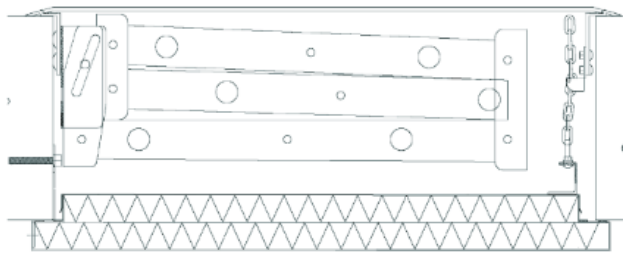


Figure 5. Cross-section of a balcony hatch with firestop