

## 5. NON-STRUCTURAL ELEMENTS. WALLS.

Non-structural walls, which separate fire areas, should be fire resistant as stipulated in standard EN 1364-1.

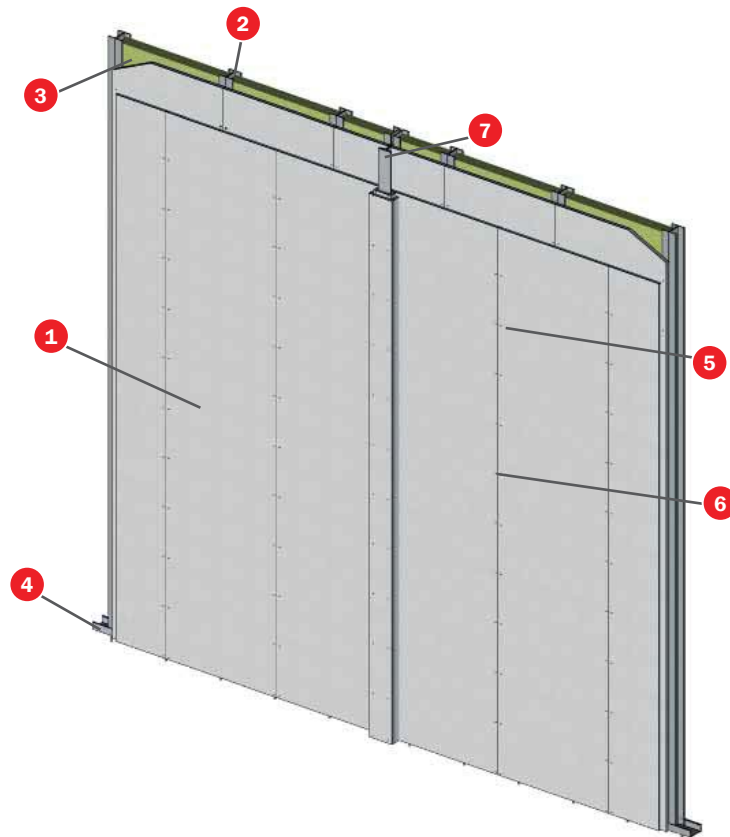
When in fire resistance tests for non-structural elements one edge is left free (Part 1: Walls), the standard allows increasing the width.

With regard to increasing the height, the standard is clear and precise. When the test is run at least at 3 metres high, it may be increased up to 4 metres.

Very often, internal partitions are higher than 4 metres. **Mercor tecresa**® have been the first to develop large partitions and offers the most efficient and convenient solution for this type of works.

Besides, penetrations produced between different fire sectors must be sealed off; for example, in the case of services crossing. Check the **TECSEL**® **Sealing System** catalogue to find the most suitable solution.

## 5.4 TECBOR® A 15+15 - EI 120 INDEPENDENT WALL LINING



### TEST

**Standard:** UNE EN 13501-2  
**Laboratory:** CIDEMCO  
**Test N°:** 19319-1/2-M1

### SOLUTION

- 1 Tecbor® A 15 mm boards
- 2 70x36x0,6 mm double stud H-shaped
- 3 60 mm (30+30) and 100 kg/m<sup>3</sup> density rock wool
- 4 73x30x0,5 mm runner
- 5 3,5x35 mm self-tapping screw
- 6 Tecbor® joint paste
- 7 Metal profile

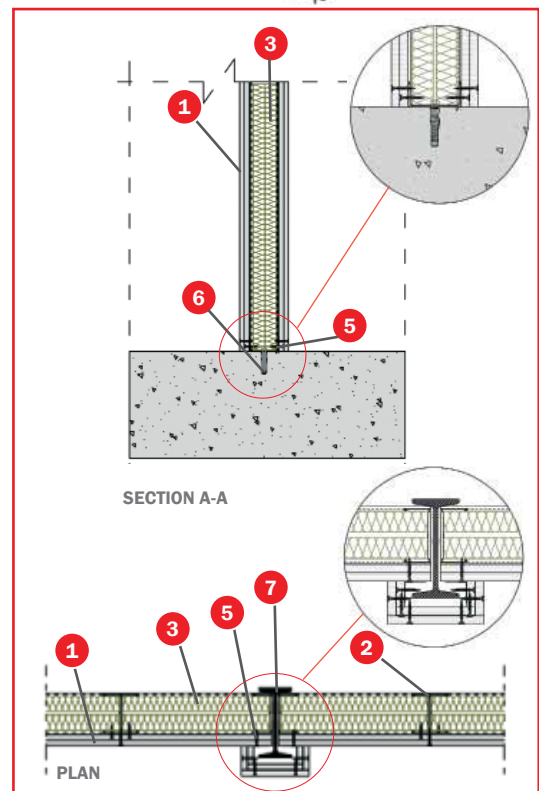
### DESCRIPTION OF ASSEMBLY

Attach 73x30x0.5 mm runners and assemble 70x36x0.6 mm studs every 610 mm. Fill in frame with 60 mm (30+30 mm) and 100 kg/m<sup>3</sup> rock wool panels.

Attach both Tecbor® A 15 mm board layers with 3.5x35 mm self-tapping screws every 200-250 mm alternating the layers.

Use Tecbor® joint paste in screw heads and between boards.

Upon running the test, a 0.6 mm thick galvanised



sheet was mounted on the unexposed surface, fixed to the studs with 13 mm sheet-metal screws. This sheet is not fire resistant; therefore, it can be replaced in the final assembly.

An IPN 140 metal profile was placed in the test furnace frame centre.



## METALWORK ASSEMBLY FOR LARGE PARTITIONS (> 4 M HIGH)

If partitions are above 4 m high, additional reinforcement must be provided.

This structural solution consists of 5 easy-to-install pieces protecting the partition against the stress caused by dilation and temperature variations, and the masonry seating itself.

**mercor tecresa**® has tested the metalwork assembly for partitions higher than 4 meters. Consult with our technical department for further information.



TECBOR® A & B



Non-structural elements. Walls.