

# FIRE BELT BARRIER SYSTEM/ROOF

EI 60 | EI 90 | EI 120

**Safety Regulations against Fire in Industrial Facilities** indicate that, when a dividing wall or a splitting construction element in fire prone areas connects into the roof, the resistance of the latter will be at least equal to half of that established for the construction element in a 1-metre firebreak. The firebreak could be:

- Roof built-in as long as the firebreak presence is justified after non-resistant roof parts collapse.
- Fixed to the roof structure when it has the same fire stability as the firebreak resistance required.
- Made of a 1-metre wide barrier underneath the roof fixed to the dividing wall, providing the fire resistance required. In no case should the barrier be installed at a distance greater than 40 cm from the roof lower part.

**mercortecresa**® has designed and conducted this solution pursuant to the following European Standard (Document/Protocol): “**Fire Resistance Test of dividing wall/roof firebreak,**” the classification obtained being **EI-90** y **EI-120**.

TECWOOL® F MORTAR

# CONSTRUCTIVE SOLUTIONS



# TECWOOL® MORTAR

FIRE BELT BARRIER SYSTEM / ROOF FIREBREAK

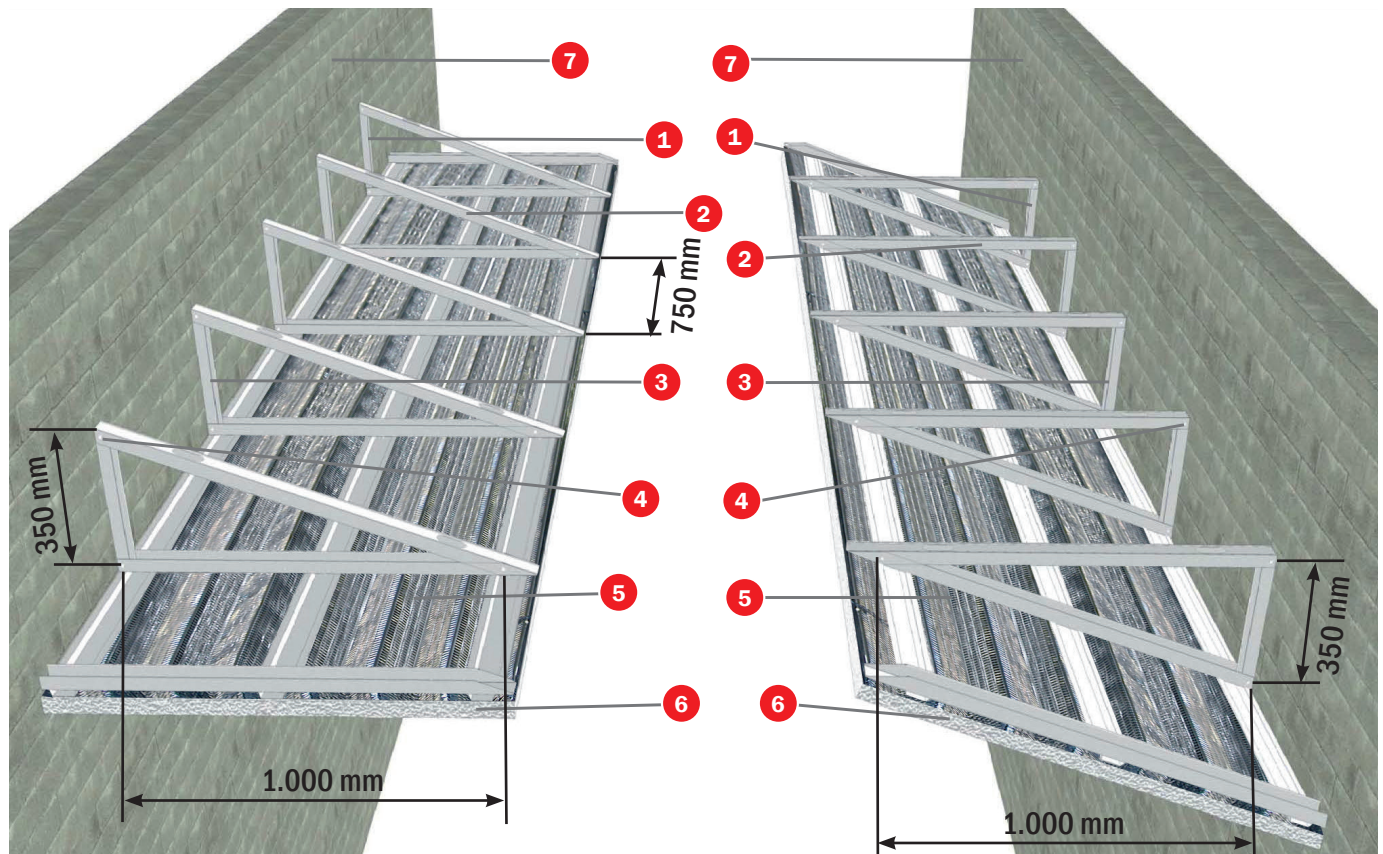
## TECWOOL® F MORTAR

EI 120

FIRE BELT BARRIER SYSTEM / ROOF FIREBREAK

HORIZONTAL: EI 120

INCLINED: EI 120



### TESTS

**Standard:** Fire resistance test protocol for fire belt barrier system/roof firebreak

**Laboratory:** TECNALIA

**Test No:**

060930-002-1 Inclined

060930-002-2 Horizontal

### SOLUTION

- 1 10x100 mm metal frame anchor
- 2 46x36x0.6 mm stud
- 3 48x36x0.5 mm wall support section
- 4 4.2x27 mm sheet metal screw
- 5 Metal-ribbed mesh
- 6 Tecwool® F (thickness of 50 mm).
- 7 Partition wall

### APPLICATION

We build a framing square with 48x36x0,6 mm uprights, respecting the dimensions established on the details for the horizontal and inclined configurations.

The union between profiles is made by 4,2x27 mm metal-metal screws. The framing squares are placed each **750 mm** and fixed to the support work by dowel and screw of **10x100 mm**, at least two fixations per upright.

Three master omega profiles type **45x15x0,6** separated each **500 mm** and fixed by **4,2x27 mm** metal-metal screws

The nervometal Tecmesh will be fixed to the support structure on its omega profiles by self-tapping screws and the appropriate washer.

We will spray **50 mm** of Tecwool® F mortar over the nervometal.

The stripe has been tested horizontally and inclined making an angle of 30° to the horizontal. These configurations allow an installation on works in configurations from 0° to 50° of inclination to the horizontal, provided the assembly system and the maximum distances indicated and reflected previously in the different construction assembly details are respected.