

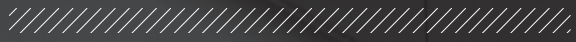


CERÁMICA MAYOR, S.A.

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# tempio<sup>®</sup>

Ventilated façade maintenance



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VENTILATED FAÇADES SYSTEMS **FK, FS & FF**

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# tempio®

## Ventilated facade maintenance

This document will help you to preserve your Tempio ventilated façade effectively. In the next lines you will find the instructions for its use, the inspections that should be carried out and the different maintenance tasks.

It must be expected that the project managers of each building will have their own maintenance program. These specific programs will be, without any doubt, the most adequate maintenance programs for the building.

### INDEX

	<i>page</i>
1. INSTRUCTIONS FOR USE	3
2. INSPECTIONS AND MAINTENANCE TASKS	3
3. VENTILATED FACADE WET CLEANING PROCEDURE	4
4. TILE REPLACING	5
5. DIRTINESS REMOVAL DUE TO WATER EVACUATION	6
6. EXPANSIONS	6



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CERÁMICA MAYOR, S.A.  
Partida Planet, s/n  
03510 Callosa d'En Sarrià  
(Alicante-España)

T+34 965 881 175  
www.ceramicamayor.com

[www.tempio.es](http://www.tempio.es)

## 1\_INSTRUCTIONS FOR USE

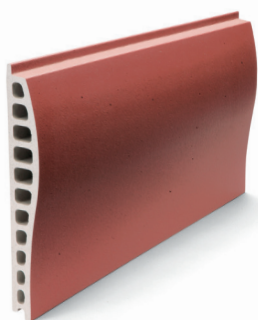
The façades tiles are exposed to weathering. This fact makes necessary to control them and their evolution. In order to give an accurate set of instructions we should distinguish between tiles with a natural finish or tiles with a glazed topcoat.



### Natural finish

The porosity of the natural finish ceramic tiles is very low, however they are more susceptible to marking than the gloss or matt gloss tiles. Sealers can be applied if required however; the material is predominantly self-cleaning when it rains.

On occasion soluble salts have appeared whilst material is in transit; these can be easily removed with a mildly acid cleaning solution (vinegar and water).



### Glazed topcoat

This kind of tiles could be cleaned using warm water. In case of heavy soiling a detailed cleaning procedure is described in the next chapter "Ventilated Façade wet cleaning procedure".

It should be underlined that any wet cleaning procedure shouldn't be used on cracked tiles. This cleaning procedures can lead to a detachment of the topcoat.

## 2\_INSPECTIONS AND MAINTENANCE TASKS

### TO INSPECT

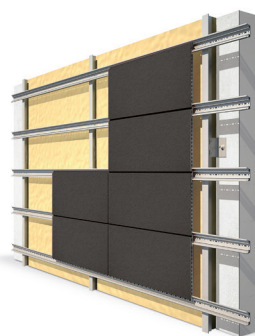
- |                       |   |
|-----------------------|---|
| <b>Every 2 years</b>  | The anchoring system of the ceramic tiles (the structure) should be reviewed. |
| <b>Every 5 years</b>  | Overall inspection of the finishing of the façade.                            |
| <b>Every 10 years</b> | Cleaning of the tiles of the façade.  |

### TO CLEAN

- |                       |  |
|-----------------------|--|
| <b>Every 10 years</b> | Clean the ceramic tiled pieces of the façade.      |
| <b>Every 10 years</b> | Clean the ceramic pieces of the ventilated façade. |

### 3\_VENTILATED FACADE WET CLEANING PROCEDURE

FK SYSTEM



FS SYSTEM



#### Removal of the dirtiness caused by pollution

Depending on the area where the building is placed, dirtiness caused by pollution may appear, especially which is caused by dangerous fumes. Cerámica Mayor ceramic tile has a low absorption so pollution does not penetrate into the tile, only it is put on the surface. In that case, the cleaning is carried out with water to pressure without any industrial solvent. The frequency of this cleaning will depend on the level of dirtiness. It is estimated to be from 5 to 10 years if pollution is not too high, and over 2 years if pollution is high.

#### Ventilated facade wet cleaning procedure

##### Water temperature

On the one hand, the high temperature of the water contributes to dissolve the spots on the façade. On the other hand, if the water is too hot it will facilitate the chemical process which damage the tiles.

Water use: It should be used pressurized water. It is an important contribution to the improvement of the cleaning procedure.

Water pressure: The pressure of the water should be the one which produce water mist. Water mist reduce the amount of water needed and reduce the water penetration in the tiles.

##### Detergent

Detergent could help to release the dirt. Neutral detergents are the appropriate for the façade, but any detergent which help to remove the dirt and which don't damage the tiles will be appropriate.

Manual brush: The use of manual brushes is advisable. Just we should ensure that the bristles of the brush aren't too harsh for the façade tile.

Test area: In order to test the effectiveness of the selected cleaning procedure it may be helpful to test it in small area of the façade. Depending on the outcome of this test, we could change or adapt the action.

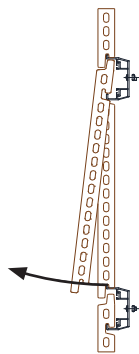
##### Drying

On the one hand, the use of air dryers could reduce the water saturation and efflorescence problems. On the other hand the use of air dryers produce thermal variations which do not benefit to the façade.

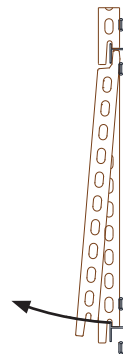
## 4\_TILE REPLACING

Cerámica Mayor Systems permit to replace a tile when it is necessary. The replacing process can be observed in the below pictures:

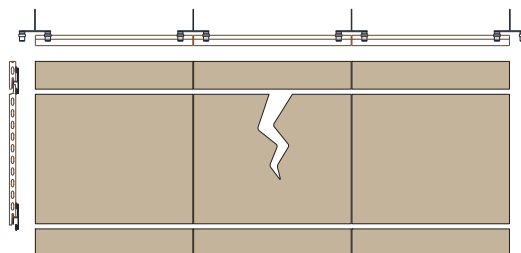
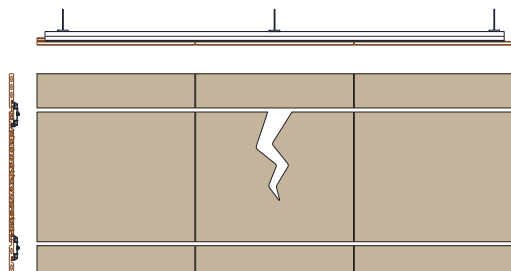
### FK SYSTEM



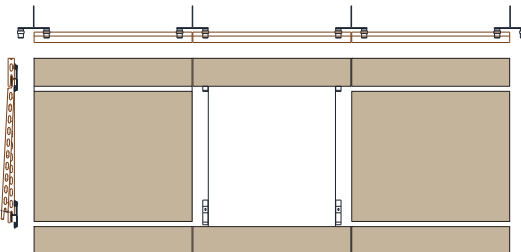
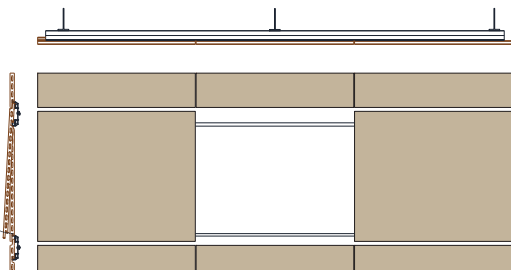
### FS SYSTEM



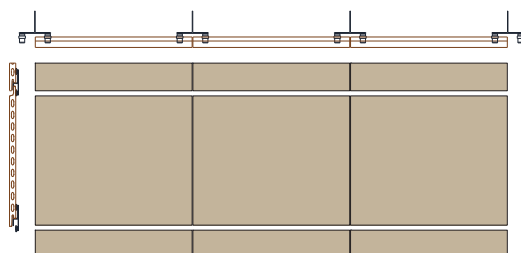
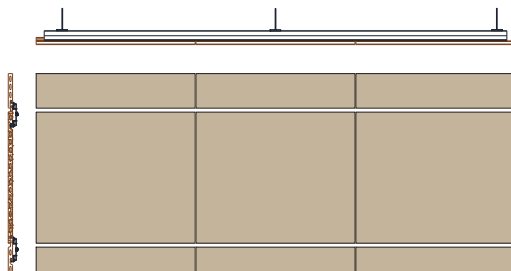
#### a) Detection of the damaged tile



#### b) Removal of the damaged tile



#### c) Placing of the new tile



## 5\_DIRTINESS REMOVAL DUE TO WATER EVACUATION

Just with rain water the tiles could be easily cleaned. However, depending on the characteristics of the rain, dirtiness can be accumulated in special points of the façade such as sills, copying and starting units and corners. In that case, if water to pressure is applied, dirtiness is removed.

## 6\_EXPANSIONS

The sub framing used with ceramic covering is designed to absorb expansions because of temperature cycles. Cerámica Mayor offers a manual for the installation of the system to prevent any expansion.

However in case of movement of tiles due to those expansions, please contact Cerámica Mayor technical department.



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*(This document is a translation from the original Spanish document)*

Callosa d'En Sarria, 10th of December, 2010

**José Manuel Soria Meliá**  
*Laboratory Manager*  
*Cerámica Mayor*

