**Technical constraints**

Balconies should be designed with a certain slope to allow drainage. Water should not be allowed to stagnate.

The structure must be strong enough to support the expected load including tiles, adhesive, grouts and a screed if needed without undue movement.

In exterior applications such as balconies and terraces the thermal and mechanical stresses are much higher than in interior applications.

**Climatic constraints**

External floors are subject to climatic conditions like rain water. Check the slopes of the substrate to be minimum 1.5 cm over 1m, in order to ensure the drainage of rainwater towards external sides of the terrace.

Extreme temperature variations can also lead to strong mechanical constraints (freezing, tiles expansion due to thermal variations). Achieve a draining mortar that will facilitate the evacuation of water. It will help the tile adhesive to dry and avoid carbonation that could lead to white traces on the grout.

Constant water saturation under the tiles will lead to debonding of tiles. This situation will be increased in case no slope has been included in the design. Use a high performance and water-resistant tile adhesive, as well as a high performance tile grout which will absorb the dimensional variations of the tiles.

**Precautions**

The substrate must be sound, clean and able to bear weight, free from dust, dirt, grease oil or any contaminating material before tiling to prevent adhesion failure.
1- Tiling on terraces over a sand bed

Apply 2 layers of weberdry 210 AFC or weberdry gum, an acrylic waterproof membrane, between the substrate and the sand bed. After 24 hours minimum, fix the tiles with webercol floor, a thick adhesive mortar applied above the sand bed.

2- Other application method or concrete substrate

**Tile adhesive**

webercol plus and webercol flex are particularly adapted to this kind of application. In case of large white tiles or stones, webercol fast or webercol F1 can be used.

The back-buttering method is mandatory (adhesive applied on the substrate and on the back of the tile) to ensure full adhesion between the tiles and the substrate, and to avoid voids in the adhesive layer. Apply the tiles and press them firmly, ensuring a good adhesion between the tiles and the substrate.

**Tile grouting**

It is recommended to have a minimum joint width of 2 mm around the tiles. Grouting should be done at least after 24 hours of fixing tiles. (after 3 hours only when using webercol fast or webercol F1) we recommended weberjoint perfect, the low water-absorption grout with Hydro Repell® and Mould Stop® technologies, should be used.

**Note**

The existing design of a balcony should be of a rigid concrete construction, with a slope of 1.5 mm/m towards drainage point.