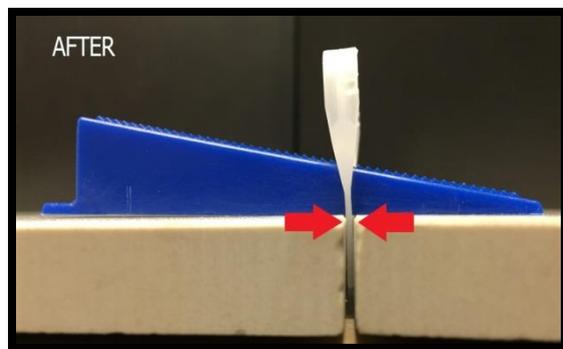
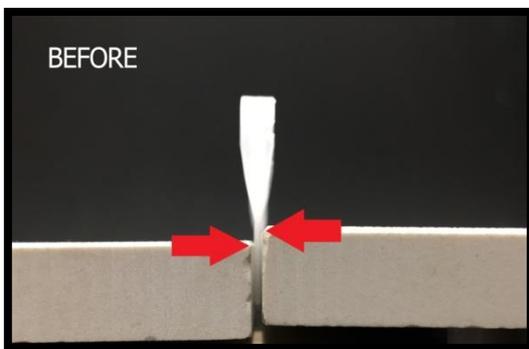


## Ceramic Tile Leveling System

Some factors such as variation in the thickness of the ceramic tiles (although this variation is allowed by standards), the allowable curvature of the ceramic tile surfaces, the joint width between the ceramic tiles or the variation of the thickness of the adhesive mortar bed can cause differences in the level of the adjacent ceramic tile surfaces. This condition where one edge of a tile is higher than an adjacent tile is called lippage. The angle of the light (natural or artificial) and the reflective surface of the ceramic tile can make the lippage more noticeable.

Even though a limited amount of lippage is allowed by standards, this value should be reduced to zero to prevent ceramic tile edges from damage. Wedge and leveling clip are used for this purpose.



The components of this system are:



1. Leveling clip



2. Wedge

To increase the efficiency of this system, it is recommended to use special pliers. The advantages of using pliers are increasing the leveling speed and accuracy and also the pressure force for adjusting the clips.



The special pliers for wedge and leveling clip

### Steps of using wedge and leveling clips:

1- Apply adhesive under the ceramic tile so that there is no cavity. Then remove the excess adhesive from the ceramic tile edges by a trowel and place one side of the edge of the leveling clip under the ceramic.



2- Then place the next ceramic tile on the other edge of the clip and adjust it by a rubber hammer.



3- Place the wedge into the clip and fix it with the special pliers.



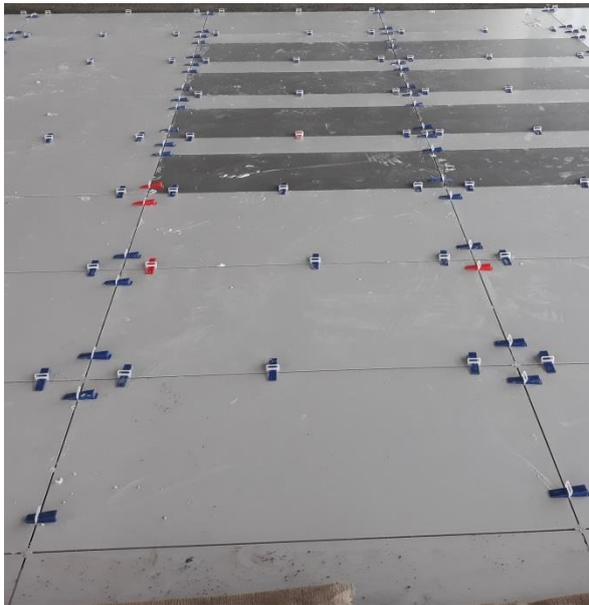
4- Finally, to remove the clips and wedges, gently tap the clip in the direction of the ceramic tile joints with your safety shoes or with a plastic hammer so that the lower part of the clip remains under the ceramic tile and the upper part and the wedge come out. This should be done when the adhesive under the ceramic has dried and the ceramic tiles do not move due to the tapping.

\* The wedges can be used frequently, so collect them.



Most manufacturers offer the number of leveling clips and wedges used in the installation of ceramic tiles, according to the following chart, which is provided for some sizes.

Ceramic tile size (cm)	30×30	40×40	60×60	80×80	100×100	60×120
Number of clips and wedges per square meter	42	20	10	10	10	10



Appropriate number of leveling clips and wedges



Inappropriate number of leveling clips and wedges