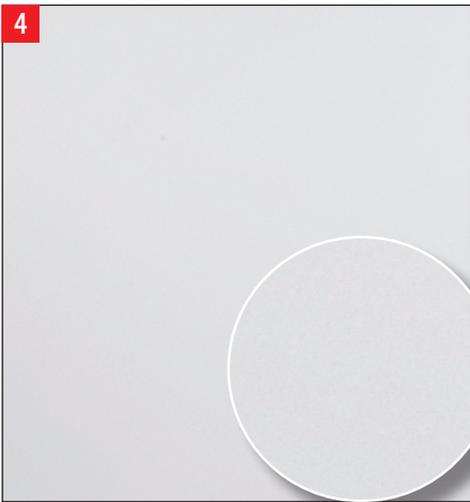
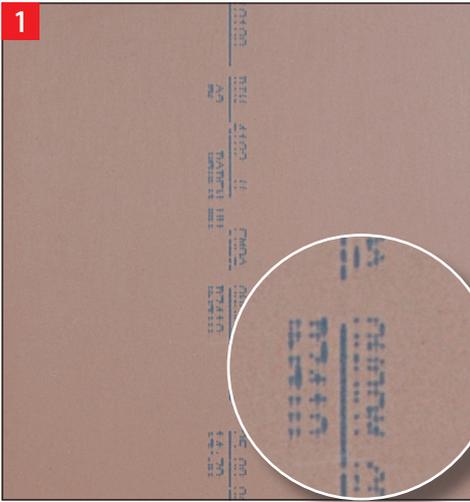


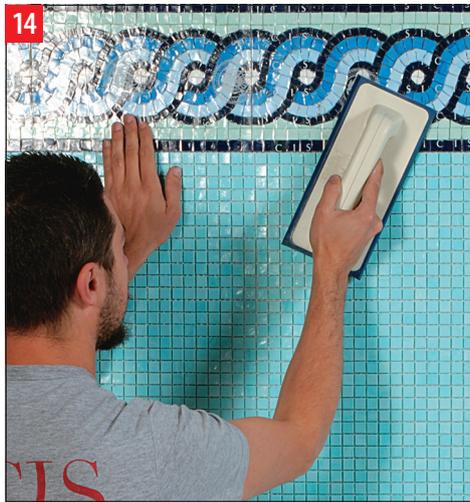
# MESH-MOUNTED MOSAIC

## LAYING SCHEME



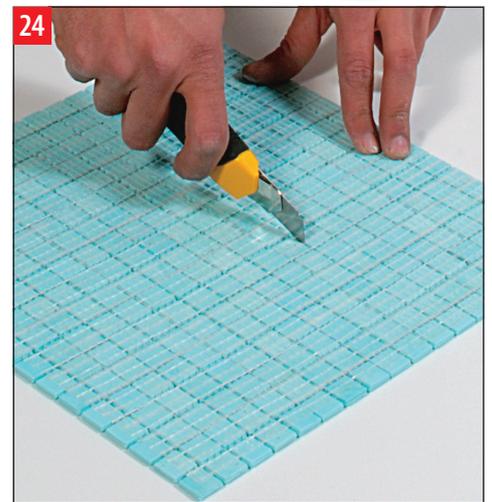
# MESH-MOUNTED MOSAIC

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### EQUIPMENT



**EQUIPMENT** (A) Helicoidal whisk to mix binder and sealer (B) Stainless steel squeegees and trowels (C) Smooth squeegee, stainless steel square tooth mm 3 and mm 5 (D) Cutter (E) Measuring set (metre, pencils, ruler) (F) Rubber plasterer's trowel to flatten and plaster sheets (G) Cellulose sponges set fit for cleaning epoxy materials (H) Continuous gear diamond lapping wheel placed on angular sanding machine (I) Pincer for manual cutting fit for glass (L) Fan for adhesive film removal.

**SUBSTRATE PREPARATION**

(1) The substrate must be plane, solid, without cracks and in case of crumbling, specific products must be applied where necessary. Lacking one of the mentioned conditions, the substrate is not fit for laying and therefore a preliminary treatment with appropriate materials becomes necessary. To this aim (should the item consist of glass tesserae) the colour of the substrate is recommended to be white which, given the glass transparency, doesn't affect the mosaic colour.

(2/3/4) A preliminary treatment using white adhesive or specific products is recommended in case the colour of the substrate is neither white nor homogeneous. A good preparation of the substrate is of the greatest importance since any small imperfections results on the surface thus affecting the final result. Adhesives and sealers depend on the item to be applied, on the kind of substrate (masonry, wood, gypsum board, asbestos cement, metal, etc.), on the final utilization of the premises (swimming pool, steam bath, bathroom, kitchen, etc.), and on the expected traffic rate on the surface areas (hotel, show room, wellness, shopping centre, private house, etc.).

However, specifications issued by the major adhesive and sealer's producers should be strictly complied with.

**Please refer to City Lights Product Catalog for specific information on the type of adhesive to use linked to the type of application, in some cases epoxy adhesives and grouts can only be used for certain products.**

**PRELIMINARY LAYING OPERATIONS**

The first step in any laying operations consists in marking up, with a carpenter pencil, the horizontal and vertical guidelines on the concerned area (floor and/or wainscot) by means of levels, aluminium edges, laser tools and line markers.

Check first the walls plumb and floors levelling: should not the walls be vertical, a preliminary render operation is required. In case this is not possible, the mosaic tesserae shall be cut by means of appropriate tools (see pict. 22, 23 and 24). To re-adjust the floors level, a primer - helping adhesion - is to be applied on the substrate (specific primers are available for each type of substrate) so as to obtain a correct adhesion of the self-levelling compound whose contents will be different depending on the thickness to recover. The mostly used products recover thickness from mm 1 to mm 30. To make the self-levelling operation easier the use of level marks is recommended. Once they have been placed, the operation is carried out.

In case of small areas such operation can be performed by means of aluminium edges. In the case of larger areas, it is suggested to use professional tools such as plastering machines and screed pumps, taking care to limit the area of intervention in order to prevent the overflow of the product which could cause lowering of the level.

**LAYING OPERATIONS**

(5) Unpacking of the items and removal of the separator paper sheets from the box.

(6) Laying of the white adhesive using first the smooth side of the notched trowel, so as to cover an area not exceeding 1 sqm (the dimension of the surface on which adhesive is to be applied depends on the kind of substrate, on the adhesive used, on weather and environmental conditions)

(7) Then use the toothed side of the trowel, 3 mm tooth (5 mm in case of swimming pools, steam bath or similar) maintaining the same pressure and inclination.

(8) The adhesive should form a uniform layer.

(9) Example of the product: sheet of glazed mosaic tesserae inserted on a fibreglass mesh.

(10) Each mosaic sheets have to be laid onto the adhesive while still fresh, so as to have the fibreglass mesh touching the adhesive until the whole glued area is covered.

(11) Pressing of the sheets: the sheets must all result on the same level making sure to leave a 1 mm joint between them. To obtain such a result it is recommended to use a rubber float so that the final surface appears as one continuous tesserae area instead of a series of mosaic sheets. Repeat the above step until the entire area has been completed.

Make sure that the adhesive outside the surface occupied by the mosaic has not started hardening. If so, it has to be removed. In case of mosaics with semitransparent colours such as Navy and Coral 4 a greatest care has to be taken on pressing the sheets using a rubber float, making sure that the underneath adhesive becomes completely flat and fully adherent with the mosaic tesserae to avoid the effect of the lines made by the teeth of the trowel. If the shade remains, remove the lines prior to the mosaic sheets installation, flattening the adhesive using the smooth side of the trowel. Be careful not to remove any adhesive.

(12) It is recommended to take out the glue in excess before its hardening, especially if the colour of the joint sealing is different from the adhesive one. An hard brush may help to this aim.

(13/14) The same operation shall be required to lay the decorative border so that the fibreglass mesh will match the adhesive while its front side presents a transparent self-sticking film. Mind to maintain the same joint space.

(15) The self-sticking film is to be removed as soon as the adhesive has sufficiently hardened. It is recommended to lift its lateral border then pull diagonally the film but keep it parallel to the mosaic area. Under some weather conditions (especially in wintertime) a heating fan might help.

(16) Figure showing the correct mosaic installation before grouting. Single sheets cannot be distinguished.

(17) Grouting of Mosaic: once the mixture is ready, use a rubber trowel to seal all the joints, the grout should be applied diagonal to the mosaic surface making sure to properly fill every interstice.

(18) The same tool is to be used to remove any sealant in excess.

(19) As soon as the grout starts setting, proceed to clean the surface by a fresh water humid sponge minding not to remove the sealer.

(20) Wipe the surface using a soft cloth with circular movements that help to polish it. It is very important that cleaning is carried out before the sealer has started setting or has completely hardened: any sealer wastes that might remain should be removed using appropriate products.

**Reference should always be made to the adhesive and sealer producers' specifications.**

(21) Correct laying final result.

(22) Whenever necessary, mosaic tesserae can be cut by means of a continuous gear diamond lapping wheel placed on an angular sanding machine. Depending on the situations, this tool is of great help to obtain special cuts (non-vertical and right-angles walls).

(23) In some cases (holes in the tap area) each single mosaic tessera can be cut by hand using a pincer.

(24) Hand cut by means of a cutter to divide the sheets or reduce the sheets size.