SPECIFICATIONS

Terrazzo tiles are manufactured using automatic hydraulic machines to ensure that the final product complies with the European standard BS 4131:1973, as well as the Kuwaiti standards KSS 361/89 and KSS 362/89. The tiles are formed from hydraulically pressed concrete units subjected to a concrete mix at a pressure of 180-200 bar over the entire surface area, resulting in a product with the density and strength of natural stone.

White or black cement, conforming to the American standard ASTM C-150 or as per customer request, is used. Marble chips of 1.5-2.5 mm and marble powder of 0-0.8 mm are also utilized to give the terrazzo the desired uniform mixed appearance. Absorption: $\leq 8\%$

Crushing strength: ≥ 3 N/m² Density: 2260 kg/m³

Types & Prices								
Type & Color		601 Black	201 White	301 Yellow	901 Brown	122 Grey	121 Grey	401 Green
Dimensions (cm)	Thickness (cm)	Price(KD)	Price(KD)	Price (KD)	Price(KD)	Price(KD)	Price (KD)	Price (KD)
30×30	2.0	0.480	0.510	0.505	0.500	0.480	0.480	0.500
	2.5	0.565	0.600	0.595	0.595	0.566	0.566	0.590
	3.0	0.655	0.730	0.690	0.690	0.655	0.655	0.685
40x40	2.0	0.845	0.905	0.890	0.890	0.850	0.850	0.882
	2.5	1.000	1.070	1.055	1.050	1.000	1.000	1.040
	3.0	1.155	1.235	1.220	1.215	1.160	1.160	1.205
30×60	2.0	0.960	1.020	1.010	1.005	0.960	0.960	0.995
	2.5	1.135	1.205	1.190	1.190	1.135	1.135	1.180
	3.0	1.305	1.400	1.380	1.375	1.310	1.310	1.365
40×80	2.0	1.690	1.810	1.780	1.780	1.700	1.700	1.765
	2.5	1.995	2.135	2.105	2.100	2.005	2.005	2.085
	3.0	2.305	2.360	2.435	2.435	2.315	2.315	2.410

· Prices mentioned above are by piece

· Prices are subject to change depending on the raw materials

• Transportation fees of KD10 are added for quantity less than the minimum load

· Cutting and Smoothing service is available with extra charge according to the required dimensions

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TERRAZO PANELS



Onational industries

www.nicbm.com

Terrazzo panels are one of the most popular building materials in the local market for use in flooring, walls, and facades, thanks to their durability and attractiveness. Additionally, they are water-resistant when appropriate adhesives are used, easy to clean, and environmentally friendly.



Terrazzo panels are versatile and can be used for flooring, staircases, or wall facades. For wall facades, traditional cement mortar or a mechanical installation method can be used. Below is a summary of installation methods for flooring, stairs, and facades:



FLOORING INSTALLATION:

Before starting, ensure the area is clean, then spread sand to the required thickness based on the floor's slope and level. Mark the surface level of the slab and square the room at a right angle using a string.

Terrazzo tiles can be installed using cement or royal tile adhesive, arranged according to the approved design. Once installation is complete, allow it to dry, then apply grout in the desired color, with tiles being cut as needed.

WALL FACADE INSTALLATION:

A. Mechanical Installation:

This is the most common method, using iron angles fixed to the wall with screws on one side and vertical screws on the other, securing the slabs with adhesive. This method leaves a gap between the wall and slabs (2-5 cm).

The façade is coated with cold bitumen to prevent insect infestation and mold growth in the gap. Avoid using black primer, which is a base layer for waterproofing but does not protect against pests.



Iron angle fixing points and heights are marked according to the design plan.

Slabs are cut at the top and bottom to insert wire or vertical screws and adhesive (mastik), and the wire ends are anchored with a fisher.

Use galvanized or stainless steel angles and screws to prevent rust.

The first row is installed on a 5x5 cm iron angle or based on slab thickness, fixed to the wall to support the façade. Cement-sand mortar is filled behind the first 1.5 cm of slab height to prevent breakage from impact.

This method allows replacing damaged slabs and is ideal for hot areas, as it avoids slab breakage due to different expansion rates between slabs and concrete. It also prevents color changes from mortar reactions and simplifies transportation and relocation.

However, this method is more expensive and requires specialized labor.

B. Traditional Installation (Semi-Mechanical):

After determining measurements and thickness, installation begins following the completion of electrical work.

Care should be given to the first row of slabs, as it forms the base. Slabs are arranged according to the design, squared, and aligned with gypsum points.



After completing the first row, it is grouted with a liquid-like cement mortar. Grouting is done in stages to avoid gypsum failure, with layers no higher than 10 cm.

After grouting, remove the gypsum ties from the top and install the following rows, maintaining vertical and horizontal alignment.

This method is cost-effective and works with all slab types but has drawbacks, such as water absorption from mortar and poor adhesion in case of earthquakes.

STAIR INSTALLATION:

Stair installation involves measuring the height between floors, marking levels on walls, and calculating the number and height of risers. If the delivered risers do not match the calculated heights, adjustments are made.

If differences exceed 2 mm, risers or step numbers must be changed.

Once correct heights are determined, install the first riser and tread, leveling them with a 2 cm overhang from the riser. The process continues until the staircase is complete.

A string or rod is placed along the stair noses to ensure proper alignment. Stairs are covered with gypsum or grout during construction to prevent damage.

PREFABRICATED STAIRS:





To simplify and speed up installation, the National Industries Company offers prefabricated stairs, which can be customized to specific project dimensions. Installation involves cleaning the area and applying cement or tile adhesive before placing the stairs.