

# TERRAZZO TECHNICAL DATA

## MATERIALS

- Front Layer: Portland cement, micron marble powder, marble chip, admixture, special chemicals, color pigment
- Back Layer: Portland cement, sand, dolomite

## FINISHES

- Polished (uncoated)

## PRODUCTION CAPACITY

- 3000 sq.m./day

## APPLICATIONS

- Indoor & outdoor, Floors only
- Suitable for use in high traffic/heavy duty areas in commercial spaces, factories, public areas, garages, cafes/hotels, sports clubs, hospitals, schools, banks and other.
- Also suitable for homes and residential projects.

## TECHNICAL SPECIFICATIONS

SIZE CM	THICKNESS	WEIGHT/SQ.M.	TILES/SQ.M.	TILES/METER LENGTH
25x25	25 mm	55 kg	16	4
30x30	30 mm	70 kg	11.11	3.33
40x40	40 mm	90 kg	6.25	2.5

## TECHNICAL ANALYSIS TEST RESULTS

Tests conducted by the Egyptian Housing & Building National Research Council

## Granite

GRANITE 30x30cm

TEST	AVG. RESULT	STANDARD SPECIFICATIONS RANGE according to Egyptian Specifications (2005/269-2)	
		NORMAL USE	HEAVY DUTY USE
Abrasion	0.51mm loss	0.6mm max loss	3.6mm max loss
Bending/Flexural Strength	69.12 kg/cm <sup>2</sup>	At least 30 kg/cm <sup>2</sup>	At least 40 kg/cm <sup>2</sup>
Water Absorption	3.43%	Not more than 10%	

## Mosaico

MOSAICO 25x25cm

TEST	AVG. RESULT	STANDARD SPECIFICATIONS RANGE according to Egyptian Specifications (2005/269-2)	
		NORMAL USE	HEAVY DUTY USE
Abrasion	0.69mm loss	6mm max loss	3.6mm max loss
Bending/Flexural Strength	63.74 kg/cm <sup>2</sup>	At least 30 kg/cm <sup>2</sup>	At least 40 kg/cm <sup>2</sup>
Water Absorption	3.37%	Not more than 10%	

MOSAICO 30x30cm

TEST	AVG. RESULT	STANDARD SPECIFICATIONS RANGE according to Egyptian Specifications (2005/269-2)	
		NORMAL USE	HEAVY DUTY USE
Abrasion	1.19mm loss	6mm max loss	3.6mm max loss
Bending/Flexural Strength	59.51 kg/cm <sup>2</sup>	At least 30 kg/cm <sup>2</sup>	At least 40 kg/cm <sup>2</sup>
Water Absorption	4.55%	Not more than 10%	

MOSAICO 40x40cm

TEST	AVG. RESULT	STANDARD SPECIFICATIONS RANGE according to Egyptian Specifications (2005/269-2)	
		NORMAL USE	HEAVY DUTY USE
Abrasion	0.58mm loss	6mm max loss	3.6mm max loss
Bending/Flexural Strength	61.94 kg/cm <sup>2</sup>	At least 30 kg/cm <sup>2</sup>	At least 40 kg/cm <sup>2</sup>
Water Absorption	3.65%	Not more than 10%	

# TERRAZZO TECHNICAL DATA

## ENVIRONMENTAL SUSTAINABILITY

Terrazzo has been used as a flooring solution for thousands of years, since the Roman era until today. Considered one of the world's first recycled products, it was created by workers utilizing the waste chips from slab marble processing.

Today, cement & terrazzo tiles are considered a green, environmentally friendly product and can contribute up to 5 LEED credits under the U.S. Green Building Council's (USGBC) LEED-NC rating system.

There are several elements that distinguish them as a sustainable construction material with minimal environmental impact compared to many other flooring solutions:

- Typically last the lifetime of the building and have extremely low maintenance costs.
- Is a product that is comprised of zero Volatile Organic Compounds (VOC) materials, exhibiting little or no off-gassing over the life of the cured floor. The non-porous, cleanable finish does not support microbial growth, nor allow moisture to accumulate, helping to maintain a mold-free environment with improved indoor air quality.
- Most of the raw materials are natural (marble chips, white cement and natural color oxides) and the process does not use harsh chemicals that might affect the environment. Materials are locally sourced, minimizing transportation costs.
- The production process is non-polluting and uses minimum energy, as tiles are not fired in a kiln (unlike ceramic tiles). Additionally, any manufacturing waste produced is recyclable.

## PRODUCTION & QUALITY CONTROL

Most of our production lines employ Italian-made machinery and go through the following production phases:

- Automated weigh stations for the calibration of raw materials according to the required standard ratios of the batching plans.
- Top of the line mixers that achieve complete homogeneity of the mixture on time.
- Tiles are pressed using automatic high pressure hydraulic compressors using the latest technologies, with a pressure of 250kg per square centimeter.
- Tiles are stored on metal platforms in preparation for the curing process, which is required to ensure the quality of the finished tile.
- Curing rooms that are equipped with the latest systems to provide the correct environmental conditions required for the curing process to take place at the highest standard.
- Advanced marble polishing machines (12 head) process the surface of the tiles through grinding, smoothing, polishing and finishing, guaranteeing that the final surface of the tile face is of the required quality and finish. Imported Italian polishing stones are used.
- Our own modern testing laboratories ensure that raw materials and finished products adhere to our stringent quality standards.

## INSTALLATION & MAINTENANCE:

Terrazzo tiles are installed according industry standard methods, taking note of the following:

- In the case of floor installation, an under-layer of clean, dry sand with a thickness of 5-12cm should be laid beneath the tiles.
- The quantity of cement in the fixing mortar should be at least 200kg and no more than 250kg per cubic meter of sand.
- Cement mortar should be of a soft (but not too liquid) consistency and applied with a thickness of at least 2cm.
- Lay tile from a room's center-point to ensure cut tiles are at edge of floor near the walls.
- Grout lines should be between 1mm-3mm thick.
- Excess grout should be constantly cleaned off the face of the tile during installation.
- White cement should be used for grouting, and a colored oxide of the same color as the tile may be added to the grouting cement if desired.
- The floor should not be used for at least 24 hours after installation.
- For large projects (above 10,000 sq.m. of tile), it is recommended to install the tiles 10 days after delivery to give time for the tiles to dry after curing.
- It is recommended to clean the tile products on a daily basis of sand and/or dust.
- The tiles can be cleaned with a PH neutral mild detergent, avoid using an acidic/alkaline cleaning product.
- Spills should be cleaned quickly to lessen the degree of the stain, using an organic detergent.
- For heavy-duty spaces it is recommended to clean the tile using a polishing/cleaning machine every 5 years.