

TECHNICAL SPECIFICATION FOR SINGLE-LAYER OUTDOOR TERRAZZO TILE 400x600x20 mm FLOOR COVERING MATERIAL AND INSTALLATION

GENERAL:

Terrazzo is a single-layer flooring material composed of natural granite, marble, and basalt aggregates ranging between 1–17 mm, containing no organic substances, and using CEM I 42.5 Portland cement as a binder. The composite raw material mixture is compressed under 900 tons of high pressure in robotic automatic presses, minimizing water absorption values.

During production, unlike conventional tiles, there is no need for a sandy bottom layer traditionally used to absorb excess water from the top layer. The excess water in the mold mixture is discharged during the first and second pressing stages through special filter fabrics beneath the mold and by vacuum method through the upper pressing head. With these methods, the structural quality of the material is enhanced, and internal water and void content are minimized.

The pressed material is subjected to special steam curing in steam chambers at gradually increasing temperatures. After steam curing, it undergoes staged calibration using diamond and abrasive stones and is brushed in a special brushing machine using steel balls assisted by a compressor.

MATERIAL:

Standard	: TS 213 – 2 EN 13748 – 2
Pressing Pressure	: 900 Ton
Dimensions	: 400 x 600 x 20 mm (Tek Tabakalı)
Dimensional and Thickness Tolerance	: Kenar uzunluğu; \pm % 0,1 Birim kalınlığı; \pm 0,5 mm
Breaking Load Class	: 30–3T
Flexural Strength	: 5,0 Mpa (Sınıf 3 – UT)
Flexural Tensile Strength	: min. 5 N / mm ²
Abrasion Resistance	: \leq 18 cm ³ / 50 cm ²
Water Absorption by Mass	: \leq % 5
Fire Resistance Class	: A1

TERRAZZO INSTALLATION:

The material to be installed shall be stacked on a flat surface, no more than two pallets high, until the completion of the flooring process. It shall be covered with waterproof material allowing sufficient ventilation. The contractor shall protect the stored materials on-site from various damages such as dust, dirt, chemicals, etc. Damaged or defective materials shall be replaced by the contractor at no additional cost to the employer.

Before flooring installation, the existing concrete surface shall be swept and then cleaned using pressurized water washing machines. A leveling layer with a minimum thickness of 3 cm (1 m³ washed and sieved sand + 500 kg cement + 0.290 m³ water) shall be applied. After completing the leveling layer, the surface shall again be cleared of dust, dirt, etc. During installation and for 48 hours after installation, the ambient temperature must not fall below +5°C.

BEDDING MORTAR: While preparing the mortar, TS EN 197-1 PÇ 42.5 Portland Cement, TS 706 EN 12620/AC, TS 2717 EN 13139 washed and sieved natural sand, and TS 266 clean water free from harmful substances shall be used. The prepared mixture shall be mixed using a vertical mortar mixer.

The obtained 300–350 dosage lightly moistened mortar shall be spread over the leveled surface at a thickness of minimum 2.5 cm and maximum 4.0 cm and leveled with a trowel. During this process, a cement–water slurry shall be poured over the mortar and smoothed with a trowel.

INSTALLATION: Without delay, the terrazzo tiles shall be placed onto the bedding mortar and compacted using rubber-tipped mallets. A uniform joint width of 3 mm, as recommended, must be maintained between the tiles. The surface of the installed tiles shall be cleaned from remaining cement and mortar residues using a wet cloth or brushes. Depending on weather conditions, it is recommended to cure the installed area for 4 days by moistening the surface and covering it with nylon sheeting.

JOINT FILLING: After installation, depending on weather conditions, 2–4 days should be allowed for the bedding mortar to release its moisture. Since the surface of the floor tiles is brushed, the recommended 3 mm joints should be thoroughly filled using a cartridge application method. After the process is completed, any grout residue on the surface must be cleaned immediately.

After final cleaning, the grouted areas shall be protected with corrugated cardboard and nylon covering until delivery.

After all processes are completed, the surface of the terrazzo tiles shall be cleaned with natural soap and water.