

# DECOFLOOR TERRAZZO C

## Highly Aesthetic Terrazzo Decorative Flooring Compound

### Description:

DECOFLOOR TERRAZZO C is a dual component highly aesthetic colored cementitious decorative terrazzo flooring composed of crushed marble, selected natural aggregate, glass. Terrazzo floor thickness can be casted as low as 10mm depending on aggregate size. Within 24 hours after casting, some chemical retarders maybe applied over the surface, which on washing expose the aggregates on the surface to give a rough, rustic terrazzo surface. If, on the other hand, the surface is allowed to cure longer and then grinded and polished, a smooth terrazzo surface is produced. The surface may be polished to high grit numbers to produce a naturally glossy surface that rivals polished marble floors in its richness and appeal. Divider strips may also incorporated to define the control joints, and to separate different colors.

DECOFLOOR TERRAZZO C chips of individual selection when blended in the matrix, mixed on site with water and laid on the floor will create a unique polished look of TERRAZZO. With a wide range of colored base, blended with decorative aggregates, design considerations are nearly limitless. Each floor is a unique creation. The mix design provides opportunity to earn green points, by using recycled content (glass, granite, stone etc.)

Unlike epoxy terrazzo, DECOFLOOR TERRAZZO C can be economically applied in higher thicknesses, allowing the use of more visually appealing larger aggregates to produce Venetian terrazzo floors.

### Uses:

DECOFLOOR TERRAZZO C produces appealing, highly durable and abrasion resistant surfaces that are ideal for landscaping and interior floors. The polishing process produces a dense and wide combinations of aggregates and colors. DECOFLOOR TERRAZZO C is an economical, decorative flooring solution with the structural integrity of concrete and the look of cast in-situ terrazzo. When grinded and polished, it would be

ideal for offices, showrooms, convention centres, receptions halls, laboratories, and hospitals. When the aggregates are exposed by set retarders, it produces a rustic terrazzo or exposed aggregate finish that is highly slip resistant, making it ideal for walkways, outdoor plazas, parks and swimming pool decks. Area of applications include:

- Airport terminals
- Shopping malls
- Schools, universities
- Pool borders
- Museums, galleries
- Convention centres
- Concrete counter tops
- Residential

### Advantages:

- Excellent adhesion
- Excellent resistance to high traffic
- Internal and external application
- Matt or gloss, smooth or textured surfaces
- Large selection of colors and aggregates
- Dimensional accuracy, durable, strong, colorfast meeting industry standards
- Resistant to UV rays and harsh weather conditions
- No toxic odour during installation
- Manufactured with low environmental impact
- Highly durable and abrasion resistant surface.
- Produces hygienic, seamless floors when used with divider strips.
- Environmentally friendly: recycled aggregates and no hazardous resins.

### Instructions for Use:

#### Surface Preparation:

All surfaces should be sound, clean, dry and free from loose material, efflorescence, laitance, curing compounds, dirt, oil and grease.

Each surface is treated differently depending on whether it is concrete, sand cement screed or a self-levelling surface. The floor must be shot blasted or diamond ground to remove the weaker and friable

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elements on the concrete surface and to roughen the surface to ensure excellent mechanical adhesion.

Badly damaged concrete or cracks need to be repaired prior to DECOFLOOR TERRAZZO C being applied. All necessary repairs should be made using MATEX Concrete Repair Products.

Existing joints must be respected. The surface must be well levelled to avoid over consumption of materials. New concrete floors should be allowed to cure for at least 28 days with moisture content not exceeding 5%.

Surrounding areas should be covered and protected from material spills and equipment contact. Rope off working area.

## Divider and control joint strips

Divider strip are either made of aluminium, brass, stainless steel, bronze. Types of dividers applications include:

- 1) Standard/heavy top divider strips: One piece, flat type strips for grouting into sawed joints prepared in the substrate.
- 2) Heavy top angle divider strips: One piece, L-type angle strips with anchoring device and in depth required for topping thickness indicated.
- 3) Control-joint strips: Separate, double L-type angles, positioned back to back, that match material and colour of divider strips and in depth required for topping thickness indicated.
- 4) Accessory strips:
  - Base-bead strips for exposed top edge of terrazzo base
  - Edge-bead strips for exposed edges of terrazzo
  - Nosing for terrazzo stair treads and landings
- 5) Isolation and expansion joint materials: Closed cell polyurethane foam, non-absorbent to liquid, water and gas in unruptured state.
  - Set divider strips in adhesive setting bed or mechanical anchoring device, to the proper level in locations as indicated in the designed lay out.
  - Place edging strips at doorway between DECOFLOOR TERRAZZO C and other types of flooring and along the edge of terrazzo borders, adjoining other types of floor finishes.
  - Install control joint strips back to back and directly above concrete slab control joints.
  - Form expansion joints and install directly above concrete slab expansion joints. In internal applications, expansion joints are

located in no bays larger than 6 meters x 6 meters.

- It is recommended to leave joints all around columns and along the entire perimeter of the laid terrazzo floor and filled with a jointing material to provide for movement.

## Priming:

The substrate must be primed using ARMOPRIME AC-single component acrylic-based primer, at a rate of 4-6 m<sup>2</sup>/liter. On a very porous substrate it may be necessary to apply a second coat of primer, if absorption is noted to be high. The primer must completely seal the substrate. Apply DECOFLOOR TERRAZZO C when the primed surface is still tacky. As an alternative, ARMOPRIME GRIP (bonding promoter primer) slurry can be applied to primer the substrate. Apply DECOFLOOR TERRAZZO C mix while slurry is still fresh.

Under extreme weather conditions, the substrate should be saturated with water on the day before the terrazzo topping is installed.

## Mixing:

For the preparation of DECOFLOOR TERRAZZO C mix, utilize a handheld concrete mixer with a helical mixer blade. Pour 9.75 – 10 ltr of clean, cold water into the mixer. Add 50 Kg. bag of DECOFLOOR TERRAZZO MATRIX (2 bags), under slow mixing, then add 25 Kg. (1 bag) of the selected DECOFLOOR TERRAZZO CHIPS, under slow mixing, till the right consistency of the mix, free of lumps or dry spots is achieved. The mixture shall be elastic but not so wet to flow. Allow the mix to stand for 3 minutes and then remix before use. The mixed product should be used within half an hour.

## Application:

Distribute DECOFLOOR TERRAZZO C evenly using a trough and a gauge rake into the pattern requiring that particular color. The terrazzo surface must be tamped, trowelled and brought to the required level by a straight edge and steel floats in such a manner that the maximum amount of marble chips come up and are spread uniform over the surface and no part of the surface is left without chips. If required "seeding" of additional stone chips is possible.

Excessive trowelling or rolling in early stages should be avoided as it will lead in working up cement to the surface which will produce surface liable to cracking

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and will require more grinding to expose marble chips. As a precaution to avoid two colors mixing in a pattern, different colors casted need to be separated by at least a day.

## **Curing:**

The surface should be left dry for air curing for a period of 12 to 18 hours by covering with plastic sheet material. Then, cure with water but keeping permanent water on the surface for a period of minimum 3 days. The floor shall be prevented from being subjected to extreme temperature to dry. If curing is not done, chances of cracking on terrazzo surfaces and not gaining adequate strength are greatly increased.

## **Terrazzo Finish**

### **Grinding:**

The casted floor needs to cure for 3 to 4 days. Then keep to dry for 3 more days before grinding can start, depending on ambient temperature.

As per the architect requirement, the level of smoothness (from orange peel to very smooth) and the level of glossiness (from matt to super gloss) can be chosen and accordingly the aggregates can be exposed by grinding or by use of retarders.

Wet grinding is always recommended initially using No. 24 or finer grit, followed by No. 80 or a finer grit. Floor surfaces must not vary by more than 2 mm/meter.

After rough grinding, cleanse & rinse the floor with clean water. Grout the floor using fine powder sieved from the dry mix, taking care to fill the voids. After the grout has allowed its initial set, cure the surface for minimum 72 hours.

After the grout has cured, grind the surface lightly with fine grit stones. Remove any excess dried slurry.

Wash the terrazzo with a neutral cleaner and where required, clean with a fine abrasive to remove stains or cement smears.

### **Polishing:**

For a polished concrete finish on interior applications, use multi-head grinding and polishing machines with diamond tools. Start the grinding process at 35 or 40 grit with metal bond diamond tools to expose the aggregates and level the surface. About 2 to 3 mm will be removed from the surface during the initial grinding, more might be necessary for larger aggregates. Move to higher grit sizes in order to smoothen the surface and remove scratches from the previous step. A good guideline is to approximately double the grit size with each step, for example 40, 80, 150 grit. After the final grinding step with metal bond diamond tools, typically 150 grit, it might be necessary to grout the surface in order to fill any pin holes left by the grinding process. Use the fine powder sieved from the product mix.

After the grout has been allowed to cure for at least two days, move to the fine polishing stage with resin bond diamond tools, starting with 100 or 200 grit size and doubling the grit size with each step. The polishing may stop at 200 or 400 grit, then the topping sealed with approved sealer. For a natural gloss finish, polish to 1,500 or 3,000 grit and seal with a penetrating sealer.

### **Exposed Aggregate Finish**

The method of aggregate exposure depends on the desired finish. For a rustic terrazzo look, the aggregates may be exposed by the use of retarder and surface washing. For exposure by retardation, leave the surface to dry for at least 1-4 hours during the casting process, depending on the weather. As soon as the surface sheen diminishes apply a coat of retarder to the surface. Use a pressure pump or brush and clean water to progressively expose the aggregates in several passes.

### **Sealing:**

Once the grinding and polishing is over, clean the surface thoroughly and apply a protective sealer from the MATEX sealer range. The sealer coat is highly recommended to make the terrazzo surface more resistant against staining to water, chemicals, oil, grease and solvent. Periodic re-sealing is necessary to maintain the surface against traffic worn effect.

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## Standards:

- UN/EN 13892-2, UN/EN 13892-4, UN/EN 13892-8
- ASTM C531

| TECHNICAL PROPERTIES                     |                         |
|--|-------------------------|
| Density                                  | 2.0 g/l                 |
| Compressive Strength (UN/EN 13892-2)     | 40.0 N/mm <sup>2</sup>  |
| Flexural Strength (UN/EN 13892-2)        | 10.0 N/mm <sup>2</sup>  |
| Bond Strength (UN/EN 13892-8)            | >1.50 N/mm <sup>2</sup> |
| Abrasion Resistance (UN/EN 13892-4)      | Class AR 0.5 max. 50 h  |
| Water absorption                         | < 2.0%                  |
| Co-eff. of thermal expansion (ASTM C531) | 4 .1 X 10 <sup>-6</sup> |

\*Values indicated may vary depending on the environment and conditions of the material. Figures given are tested according to standard laboratory conditions.

## Coverage:

2 bags DECOFLOOR TERRAZZO C MATRIX per 4 square meters for 10 mm thickness when blended with 1 bag DECOFLOOR TERRAZZO C CHIPS.

\*Coverage rate is an approximate value, and subject to actual site conditions.

## Packaging:

- DECOFLOOR TERRAZZO C MATRIX – a pre-weighed blend of hydraulic binder, synthetic polymer, selected additives and graded fillers.
- DECOFLOOR TERRAZZO C CHIPS – a selection of graded colorful decorative aggregates (marble, stone, granite, and glass) packed separately.

DECOFLOOR TERRAZZO C MATRIX: 25 Kg. paper bag

DECOFLOOR TERRAZZO C CHIPS: 25 Kg. paper bag

## Storage and Shelf life:

Store in cool and safe place under shed. Under normal conditions, when packaging is kept dry and moisture free, the shelf life of unopened product is at least 12 months.

## Cleaning:

Clean tools with water prior to product hardening. Hardened materials can be removed mechanically.

## Recommendations:

- Application to be carried by trained professionals.
- Temperatures during mixing and laying of material should be between 10°C and 40°C. Do not use the product in the case of extreme temperatures or windy conditions.
- The mix temperature of product should not exceed 28°C.
- Variation in water cement ratio can lead to variation in color of the finished floor.

## Health and Safety:

- Avoid contact with eyes and skin. Wear suitable protective clothing such as coveralls, goggles, dust mask and gloves. Use barrier cream. Ensure that there is adequate ventilation. Do not breathe vapor or spray mist.

## FIRST AID:

|             |   |
|-------------|---|
| Eyes:       | In the event of accidental splashes, flush with warm water and seek medical advice. |
| Skin:       | Wash skin thoroughly with soap and water  |
| Inhalation: | Remove to fresh air, keep patient rested  |
| Ingestion:  | Do not induce vomiting. Seek immediate medical attention.                           |

For further safety information, please refer to DECOFLOOR TERRAZZO C Material Safety Data Sheet.

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