

DUROCRET-TERRAZZO

High-strength cementitious mortar-binder for decorative floor screeds with a modern terrazzo look

Description

DUROCRET-TERRAZZO is a high-strength cementitious mortar-binder used in combination with ISOMAT NATURAL COLORED STONES and then polished down to a smooth decorative floor screed providing the vintage aesthetic and high durability of traditional terrazzo with a modern take. Suitable for interior and exterior use. Offers the following benefits:

- Modern decorative terrazzo look
- High-quality bespoke result
- Wide range of color combinations, giving endless design possibilities
- UV resistance
- Abrasion resistance
- Non-porous finish

Fields of application

DUROCRET-TERRAZZO is used in interior and exterior applications in residential and commercial spaces, hotels, stores, etc. Suitable for application to balconies, flat roofs, terraces, etc.

Technical data

Form: cementitious powder, white
 Finish: modern terrazzo with the addition of ISOMAT NATURAL COLORED STONES (10 colors)

DUROCRET-TERRAZZO mixed with ISOMAT NATURAL COLORED STONES

Mixing ratio
 DUROCRET-TERRAZZO:
 ISOMAT NATURAL
 COLORED STONES: 1:1 (by weight)

Water demand in final mixture: 6.0-6.5 l
 (25 kg DUROCRET-TERRAZZO
 & 25 kg ISOMAT NATURAL
 COLORED STONES)

Pot life: 1 h at +23°C

Bulk density of fresh mortar:	2.25 ± 0.1 kg/l
Bulk density of hardened mortar:	2.20 ± 0.1 kg/l
Compressive strength: (EN 13892-2)	≥ 50 N/mm ²
Flexural strength: (EN 13892-2)	≥ 10 N/mm ²
Adhesion: (EN 13892-8)	≥ 2 N/mm ²
Capillary water absorption: (EN 13057)	≤ 0.20 kg·m ⁻² ·h ^{-0.5}
Application thickness:	up to 2.5 cm (min. thickness 1.5 cm)

Directions for use

1. Substrate preparation

The substrate should be clean, free of dust, oil or grease, loose material, etc. Any cavities such as cracks or holes in the substrate should be properly filled.

Absorbent substrates (concrete, screed, terrazzo, etc.) should be primed with the two-component, water-based epoxy primer EPOXYPRIMER-500 (thinned with water 10-15% by weight, consumption 200-250 g/m²) or with the two-component, solvent-free epoxy primer DUROFLOOR-PSF (consumption 250-300 g/m²). While the primer is still fresh, quartz sand with a 0.3-0.8 mm particle size should be broadcast. Consumption of quartz sand: approx. 3 kg/m².

After the primer has hardened, any loose grains should be removed with a high-suction vacuum cleaner. The terrazzo decorative system is applied after 24-48 hours, provided the primer has sufficiently dried.

Alternatively, the acrylic primer FLEX-PRIMER should be applied in 1-2 layers, depending on substrate absorbency. The terrazzo decorative system is applied after 2-3 hours, depending on the weather conditions, provided the primer has sufficiently dried.

Selection of the primer depends on substrate type, absorbency and quality.

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2. Application

Mixing with a low-speed mixer (hand-held)

DUROCRET-TERRAZZO is slowly added to water while stirring continuously with until the desired workability is obtained. It is important to scrape the sides and bottom of the container regularly during mixing to ensure a homogeneous mixture. Then, ISOMAT NATURAL COLORED STONES are gradually added to DUROCRET-TERRAZZO in the recommended ratio. Mixing is carried out with a low-speed mixer until uniform distribution is achieved.

Consideration should be given to the color uniformity of ISOMAT NATURAL COLORED STONES (see remarks at the end of the technical datasheet).

Mixing with a drum mixer

First, the required amount of mixing water is poured into the drum mixer. ISOMAT NATURAL COLORED STONES are then added at the recommended dosage and finally DUROCRET-TERRAZZO is added. Keep stirring until the desired workability is obtained.

The mixture is then applied onto the prepared surface with a metal trowel. Next, the surface is leveled and smoothed with a metal screed bar. On the fresh surface of DUROCRET-TERRAZZO (within 15-20 minutes from its leveling) the special acrylic curing agent for fresh concrete ISOCURE-A is applied with a consumption of 150-200 g/m². After 24 to 48 hours, depending on the weather conditions, the decorative floor is mechanically treated, polished and finished off in one of the following methods, depending on the type, scale and complexity of the project:

1st method:

The surface is ground and polished with a terrazzo grinding and polishing machine.

2nd method:

The surface is ground with an electric palm sander and then with sandpaper, starting with 80-grit paper until the desired aesthetic finish is achieved. This treatment method is usually selected in small-scale projects, details or hard-to-reach surfaces.

Then, the surface should be thoroughly cleaned of dust with a high-suction vacuum cleaner. Minor holes, pores, etc. created in the DUROCRET-TERRAZZO surface due to mechanical treatment are filled with WHITE 52.5 special binder based on white cement. If DUROCRET-TERRAZZO is to be colored, then WHITE 52.5 should be colored in the same color as DUROCRET-TERRAZZO.

The protective varnish may be applied two-three days after the completion of the application, provided that the surface is dry.

Coloring of DUROCRET-TERRAZZO

DUROCRET-TERRAZZO comes in white and can be colored with ISOMAT DECO-COLOR high-quality inorganic powder pigments.

ISOMAT DECO-COLOR pigments are available in 10 colors and can be combined, giving an unlimited number of colors.

For better mixing, the pigment should be dissolved into the mixing water prior to addition of the mortar. It is also possible to add the pigment after the mortar has been mixed with the water but, in that case, it should be thoroughly mixed to ensure color consistency throughout the mortar mix.

In large-scale applications, it is preferred to first dissolve the pigment into the water.

In case more than 10 doses of 50 g are required per 25 kg of DUROCRET-TERRAZZO, you are advised to contact ISOMAT Technical Support Department.

Application of varnishes

The decorative terrazzo floor screed may be protected with VARNISH-PU 2K polyurethane solvent-based varnish (gloss or satin) or VARNISH-PU 2KW water-based polyurethane varnish (satin-matt). The water-based varnish is ideal for interior, poorly ventilated spaces, as it is almost odorless.

VARNISH-PU 2K and VARNISH-PU 2KW are applied with a roller in two coats. The second coat is applied 4-24 hours after the first one, provided it has sufficiently dried.

Consumption: 70-120 g/m² per coat.

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For better distribution of the varnish, it is recommended to dunk the roller in the varnish until it is soaked, then drain it in the paint tray and apply it on the surface.

VARNISH-PU 2K (gloss or satin) generally darkens the surface. In case this is not desired, it is recommended to apply two varnishes in the following way:

First, the acrylic water-based varnish VS-W is applied in one coat, with a consumption of 150-200 ml/m². After 24 hours, the two-component polyurethane varnish VARNISH PU-2K (gloss or satin) is applied in 2 coats. The second coat is applied 4-24 hours after the first one, provided it has sufficiently dried.

The use of VS-W prevents the intense darkening of DUROCRET-TERRAZZO caused by VARNISH-PU 2K. Also, the use of VS-W can significantly improve the final appearance of the surface when used diluted with water (1:1), in one coat, prior to VARNISH PU-2KW application.

The decorative terrazzo floor screed may also be protected with the one-component, polyurethane solvent-free VARNISH-PU 1K (satin-matt). However, its use may darken the decorative surface. If this is not desired, it is recommended to apply two varnishes in the following way:

First, the polyurethane water-based varnish VARNISH-PU 2KW is applied thinned by 50% with water, in one coat, with a consumption of approx. 100 g/m². For highly absorbent substrates, it may be required to apply a second VARNISH-PU 2KW coat, thinned 10% with water, with a consumption of approx. 100 g/m².

VARNISH-PU 1K polyurethane varnish is applied after 24 hours. Allow 24 hours between each coat as long as the previous one has dried.

The use of VARNISH-PU 2KW prevents the intense darkening of DUROCRET-TERRAZZO caused by VARNISH-PU 1K.

Consumption

DUROCRET TERRAZZO: Approx. 10 kg/m²/cm of layer thickness.

ISOMAT NATURAL COLORED STONES: Approx. 10 kg/m²/cm of layer thickness.

Packaging

25 kg bag.

Shelf life – Storage

12 months from production date if stored in original, unopened packaging, in places protected from moisture and frost.

Remarks

- Application temperature should be between +5°C and +30°C.
- Avoid application in direct sun, strong winds, or rain.
- ISOMAT NATURAL COLORED STONES are naturally occurring aggregates, meaning that batch-to-batch color variation may occur. To ensure color consistency in the finished floor, it is recommended that same-batch products be used throughout the project. In case products from two different batches are used, equal parts of both batches should be mixed together to achieve a uniform result.
- Different product batches should not be used on the same or adjacent surfaces to avoid color variation.
- Care must be taken to protect freshly applied DUROCRET-TERRAZZO by covering with polyethylene or nylon sheeting to prevent premature drying due to high temperatures or strong winds.
- Any hairline cracks appearing on the floor screed after drying do not affect the durability of the floor screed and disappear with mechanical treatment and filling with the special binder.
- Before application of the varnishes, a test application must be performed to ensure the desired result.
- During the summer months, DUROCRET-TERRAZZO must be protected from premature drying (water loss) caused due to high temperatures or strong winds.
- DUROCRET-TERRAZZO should not be applied to deformable substrates or substrates subject to vibration or impact.

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- Contraction-expansion joints should be placed at every 25-30 m² and filled with suitable elastic materials after the application is complete.
- The product contains cement, which reacts with water, forming alkaline solutions, thus is classified as irritant.
- The drum mixer or mixing container to be used must be clean to avoid possible discoloration of the mixture.
- The system should be applied by professionals.
- Consult the directions for safe use and precautions written on the packaging before use.

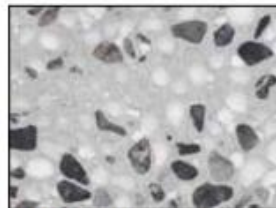
Indicative color combinations and mixing ratios (per 25 kg DUROCRET-TERRAZZO).



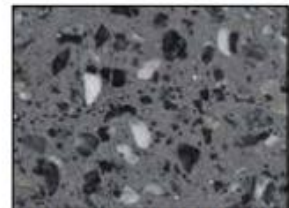
DUROCRET-TERRAZZO WHITE &
ISOMAT NATURAL COLORED STONES
18.5 kg VERDE, 6.5 kg GRIGIO



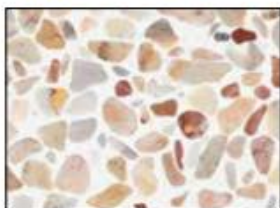
DUROCRET-TERRAZZO WHITE &
ISOMAT NATURAL COLORED STONES
12.5 kg BARDIGLIO, 12.5 kg GRIGIO



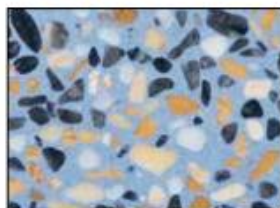
DUROCRET-TERRAZZO C1 & ISOMAT
NATURAL COLORED STONES 12.5 kg
GRIGIO, 12.5 kg BIANCO CARRARA



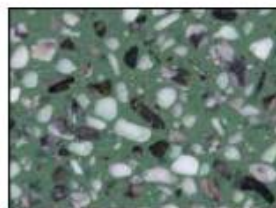
DUROCRET-TERRAZZO C9 & ISOMAT
NATURAL COLORED STONES 25 kg
GRIGIO



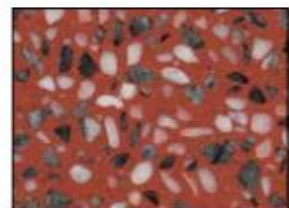
DUROCRET-TERRAZZO WHITE &
ISOMAT NATURAL COLORED STONES
25 kg ARABESCATO



DUROCRET-TERRAZZO N4 & ISOMAT
NATURAL COLORED STONES 18 kg
GIALLO SIENA, 3.5 kg GRIGIO, 3.5 kg
BIANCO CARRARA



DUROCRET-TERRAZZO F4N2C1 &
ISOMAT NATURAL COLORED STONES
18.5 kg BIANCO CARRARA,
6.5 kg GRIGIO



DUROCRET-TERRAZZO A5 & ISOMAT
NATURAL COLORED STONES 18.5 kg
BIANCO CARRARA, 6.5 kg GRIGIO

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