

Silicio₂-Terrazzo Binder 60

Terrazzo binding agent

Art.-No.: 6060



Fast-setting, low-stress white binding agent for the creation of self-compacting terrazzo floors. Layer thickness of up to 60 mm.

Technical Data

Strength class	CT-C35-F5 - CT-C40-F7* according to DIN EN 13813	Water requirement	per 25 kg ready-to-use mixture (sand - binder - filler): approx. 3.25 - 3.75 l
Mixing ratio	50% deco granulation 25 - 30% terrazzo binder 20 - 25% limestone powder	Layer thickness	Application in combination
Grain size / Fineness		micro terrazzo	12 – 60 mm
Limestone powder	0 – 0,1 mm (D50 = 15 µm)	Terrazzo	24 – 60 mm
Decorative granulation	0 - 4 mm (microterrazzo) 0 – 8 mm (Terrazzo)	Application temperature	From +2 °C to +35 °C
Load-bearing capacity	Curing at 20°C	Processing time	approx. 30 min
Can be walk on	4 Hours	Density	
Can be sanded in	2 Days	Bulk density	approx. 1.3 kg/dm ³
Can be fully loaded in	4 Days	Fresh mortar bulk density	approx. 2.0 kg/dm ³

*Depending on the used amount of Silicio₂ Terrazzo Binder and the respective grain size of all aggregates. Mixed as a self-compacting screed.

Characteristics

- Eco-binder technology
- Environmentally friendly
- Mineral based
- Free of very low emission EC1 PLUS
- Fast curing
- Low stress
- Easy to process
- Can be applied by machine

Fields of application

- Decorative coating of floor surfaces made of concrete or screed
- Cement and calcium sulfate screeds, heated and unheated
- Intact ceramic coverings
- Applicable in interior and exterior areas

Preparation of the subsurface

Before commencing coating work, ensure that the subsurface is ready for laying, stable, tensile, dry to slightly damp and clean, i.e., free from all substances that may act as release agents. We recommend mechanical preparation of the surface, e.g., by shot peening. Roughening the surface creates a better adhesive bond between the individual layers. Close deep breakouts in

advance with Silicio₂-R 15. The aim is to ensure that the subsurface remains free of cracks and vibrations in the long term. For this reason, new screed/concrete/screed should be at least 28 days old. Already existing cracks in the subsurface must be professionally repaired and expansion joints adopted. The minimum value for the surface tensile strength of the prepared subsurface is 1.5 N/mm². Make sure that priming with Silicio₂-P 20 is completed at least 2 hours before coating. The primer regulates the absorbency of the subsurface, which prevents air bubbles from rising from the subsurface during subsequent coating. To ensure this, create a test area of 1 m² on critical subsurface and apply another coat of primer, if necessary. The coating with Silicio₂; TZ 60 must be completed within 6 hours on the primer. Further instructions can be found in the Silicio₂-P 20 technical data sheet. Form the edge joint with a suitable edge insulation strip, ensuring a clean bonding to avoid undercutting or running over. Take over expansion joints. When coating work is complete, seal all joints with a permanently elastic sealant. Protect terminations and transitions against overruns before starting work, for example, by fitting end rails.

Processing variants

You can apply Silicio2-TZ 60 Binder in different ways, depending on the application purpose and terrazzo variant. For example, variations of the decorative grain size in the grading curve are possible. To make a terrazzo floor, mix 50 parts by weight of a selected decorative aggregate with 25 to 30 parts by weight of the binder and 20 to 25 parts by weight of a light-colored limestone powder. If you use smaller amounts of Silicio2-TZ 60 binder, make up the difference with the appropriate limestone powder.

Refer to the table above for the maximum grain size percentages allowed. Make sure that the deco grain used is suitable for the application according to DIN EN 13139. We will be pleased to advise you individually on the suitability of other aggregates such as various glass grains or mother-of-pearl. How much water you need for the fresh mortar depends on the processing variant selected and the desired consistency. As a guide, you can assume a water addition of 3.25 to 3.75 l of water per 25 kg of ready-to-use mixture.

Mixing and processing

To prepare the ready-to-use product, use a commercially available compulsory mixer, for example from the Collomix TMX or XM series. Determine in advance the required amount of water for the decorative granules used on a test surface. Then put the mixing water and the decorative granules in the mixing container. After brief mixing, add Silicio2-TZ 60 Binder and the limestone powder gradually while the mixer is running to prevent lumps from forming. When all ingredients have been added, mix the fresh mortar intensively for at least 3 more minutes until the desired consistency is achieved. Please note that the fresh mortar appears thicker at the beginning of the mixing process than at the end of the recommended mixing time. You should therefore only add mixing water at the end of the mixing process to prevent overdosing. If it is necessary to add water again, mix the fresh mortar for another minute. When the mixing process is finished, pour the fresh mortar onto the prepared subsurface and spread it evenly with a squeegee or trowel. It is recommended to use mortar pumps for larger areas. The suitability of the mortar pump and the adjustment in accordance with the used mixing system must be checked prior to application. Caution: Do not use screed additives or other binders for mixing.

Pigmenting

You can color Silicio2-TZ 60 Binder with various pigments, if required. The following table shows the recommended dosage for the different pigments. Add the selected pigment in the appropriate quantity to the mixing water and mix everything intensively for one minute. Please note that the liquid pigments may influence the consistency of the fresh mortar. Before application, also check the coloration, intensity, and patterning on a separate test surface. We recommend the use of Silicio2 pigments. We cannot guarantee the desired appearance with pigments or preparations from other manufacturers. Please clarify

with customer service in advance whether certain pigments are suitable for the desired appearance

Pigment	Max. Dosage per 25 kg ready-to-use mixture
Liquid pigments (black)	80g
Liquid pigments (other colors)	500g
Powder pigments (black)	150g
Other pigments (oxide based)	500 g

Finishing and protecting the surface

To prepare for the sanding process, treat the terrazzo floor created with Silicio2-TZ 60 Binder with Silicio2-H 40 at the earliest 24 hours after application. You can start the sanding work 48 hours after installation of the floor. For this purpose, we recommend floor sanding machines of the PDG series from MKS Funke GmbH. Use a fine filling filler to close the pores of the freshly sanded surface. When the sanding and polishing is complete, apply Silicio2-H 51 as surface protection.

Heated floor constructions

If you are working on heated floor constructions, it is necessary to turn down the underfloor heating to approx. 20 °C at least 72 hours before application. You can gradually raise the flow temperature again (5 °C per day) to the desired value 48 hours after application.

Equipment/tools and cleaning

You will need a compulsory mixer, trowel, squeegee, rubber squeegee and sanding tools. After each work interruption, clean the tools with water and dry them before reusing them.

Packaging and storage

25kg Paper sack
Can be stored for at least 6 months in the original packaging and in a dry environment. Do not store below 0 °C; recommendation: 10 to 25 °C. Close opened containers immediately and use the contents within the shortest possible time.

Safety information

Silicio2-TZ 60 Binder is not subject to labeling. Avoid creating dust when processing. Protect eyes and skin from contact with the product. In the latest safety data sheet, you will find further information on safety during transport, storage, and handling, as well as information on disposal and environmental protection. You can download the safety data sheet from our website at www.silicio2.com. Also observe the instructions on the product packaging.

More information

Please note that differences in color coating are unavoidable with colored coating materials due to different production batches. If you attach importance to a uniform color appearance, carry out delimited work sections with the same batch (according to the label). Also ensure a uniform film thickness during application. In addition, slight shading may occur due to different quantities when adding water and depending on the working technique in the area. Therefore, make sure that the procedure is uniform. Basically, it must be considered that Silicio2-TZ 60 Binder is a mineral product. The color shade cannot be compared with the RAL color chart and should therefore be regarded as an approximate indication.

The contents of this technical data sheet correspond to the latest state of development and application technology. All data refer to optimum conditions and cannot be automatically transferred to every application. Due to different surfaces and materials, as well as difference in working conditions, no guarantee of a working result can be given based on these instructions or on verbal advice. An exception exists if intent or gross negligence can be proven against us. In this case, it is the user's responsibility to prove that he has provided in writing, and in a timely and complete manner, all knowledge required for proper and promising evaluation by Silicio2 GmbH. Any further information on the processing and application of the products shall require the written confirmation by Silicio2 GmbH. Furthermore, the user must check the products for their suitability for the intended application. We reserve the right to make changes to the product specifications through the course of further development. In all other respects, our general terms and conditions apply. With the publication of this technical data sheet, the previous versions lose their validity. You can download the current technical data sheet at www.silicio2.com

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Silicio₂-Terrazzo Binder

Screed binder for producing flowing screeds, according to DIN EN 13813
(strength class CT-C35-F5 to CT-C40-F7).