

## 1. Product Description

**StenCoat® 2EP 310** is a two-component, epoxy-based resin binder for terrazzo systems. It creates long-lasting, permanent and decorative surfaces. It has high abrasion and chemical resistance.

It is compatible with different types of aggregates. It can be combined with fine or coarse mineral aggregates in various colors, colored or transparent glass, mirror chips, suitable synthetic aggregates, and seashells to create custom designs. It is suitable for high foot traffic areas, hygienic zones and wet floors.

It is resistant to water, detergents and disinfectants. **StenCoat® 2EP 310** creates seamless floors that are easy to clean and do not generate dust. A transparent version and catalog colors are available.

Epoxy-based coatings may yellow or change color over time when exposed to direct sunlight and UV. For best results, **StenCoat® 2PUV 401**, 402 or 403, which is water-based and substantially blocks UV rays from reaching the epoxy surface, must be applied as a topcoat. **StenCoat® 2PUV 401**, 402 and 403 varnishes are available in gloss levels ranging from full gloss to full matte.

## 2. Uses

**StenCoat® 2EP 310** is used as a binder for terrazzo systems. **StenCoat® 2EP 310** is preferred for terrazzo floors in areas with heavy pedestrian traffic where hygiene is important and visual impact is expected. It is suitable for hospitals, restaurants, kitchens, pharmaceutical research centers, schools, banks, lobbies, shopping malls, airport terminals, train and bus stations, convention centers, and similar facilities.

It can optionally be finished with a semi-matt or glossy appearance. Worn floors can be renewed to their original appearance with just a topcoat application.

## 3. Application

### 3.1. Surface Preparation

Application surfaces must be clean and dry. Concrete moisture content must not exceed 4% and the concrete must have been cured for at least 28 days. In areas with water contact from below, waterproofing must be applied first, followed by a screed layer, and **StenCoat® 2EP 310** should be applied on top of it.

Cracks and breaks must be repaired before application. Surface temperature must not exceed 40 °C. After cleaning floors by shot blasting or sanding, surfaces must be primed.

On seamless floor systems and concrete floors in continuous water contact, **StenAst® S** is used; for other concrete applications, **StenAst® 2EP** is used. The time periods specified in the user manual of the primer used must be observed.

## Epoxy-Based Binder for Terrazzo Coatings

### Highlights

- Allows custom designs
- Compatible with a wide variety of aggregates and glass types
- Available in catalog colors
- Creates a smooth, non-slip, hygienic surface that does not retain dust
- Surfaces coated with it are non-absorbent
- Easy to clean, dries quickly and does not generate dust
- Improves abrasion and chemical resistance of the surface
- Creates a long-lasting, permanent surface
- Can be repolished



## 3.2. Application

Application of **StenCoat® 2EP 310** must only be carried out by teams experienced in epoxy terrazzo systems. Applicators must use protective equipment such as goggles, masks and gloves as required by the workplace and the task. It is recommended to condition the materials at 20-30 °C for one day before application.

During application, surface and air temperature must be at least 10 °C and the temperature must not drop below 10 °C for 24 hours following the application. Surface temperature must not exceed 40 °C. **StenCoat® 2EP 310** can be combined with a wide range of fine and/or coarse mineral aggregates (marble or granite), colored or recycled glass, mirror chips, plastic chips, and seashells.

The properties of the selected aggregate directly affect the final properties of the system. **StenCoat® 2EP 310** is ready for application when components A and B are mixed. The components are packaged so that one container of each yields the correct mixing ratio.

In cases where a complete package will not be used, the package must be weighed and proportioned; the mix ratio stated on the package must be observed. Component B is poured into the container holding component A, and the two components are mixed for 1-2 minutes at 300-500 rpm until homogeneous. Before the aggregates are added, the mixed material is transferred to a low-speed, horizontal mixer.

The aggregate mixture and fine filler are added to the material and mixed until homogeneous. Mixing is continued until the aggregates are fully wetted and coated with the epoxy binder. It is important to maintain uniform color and consistency in the mixture.

Excessive mixing must be avoided to prevent the aggregates from crumbling. Mixed material must be used within the pot life. Material that has begun to thicken must not be diluted for reuse.

**StenCoat® 2EP 310** is applied with a trowel. After the material is poured onto the surface, it must be spread quickly to the desired thickness. The material must be properly compacted and leveled, ensuring no gaps between aggregates and releasing any trapped air from the mixture.

For this, a power trowel of suitable weight with plastic blades can be used. Manual compaction is also possible for small applications or detailing. **StenCoat® 2EP 310** application must continue uninterrupted.

To avoid problems at the transition points between previously applied and newly mixed material, the next mix must be spread by overlapping before the previous one begins to set. Wet-on-wet adhesion must be maintained at transition points. Because **StenCoat® 2EP 310** is solvent-free, it can be applied at the required thickness. However, the total coating thickness must be determined according to the largest aggregate size used. Before sanding, the terrazzo surface must be allowed to cure for 24 hours at 23 °C. This period is longer in cold weather and shorter in hot weather.

Sanding starts with 40-80 grit diamond sanding pads and proceeds step-by-step to higher grit pads. The dust formed during the process is removed from the surface with a strong industrial vacuum cleaner. Any holes remaining on the surface are patched with **StenCoat® 2EP 310**. A fine filler can be added to the binder during this process. After full cure, the surface is polished in the 80-120 grit range. After polishing is completed and the surface is cleaned, the topcoat is applied; the water-based varnishes are preferred. Where a solvent-based finish is required, **StenCoat® 2PUV 203** may be used for a semi-matt finish, or **StenCoat® 2PUV 204** for a gloss finish.

## 3.3. Cleaning

Equipment used can be cleaned with **StenSolver EP** at the end of the job. Chemicals to which the aggregates are sensitive must not be used in cleaning the finished floor.



## 4. Safety

Applicators and supervisors must read the Safety Data Sheet (SDS) carefully and follow the instructions provided. Emptied packages must be disposed of in compliance with relevant regulations and laws. The application must be carried out by skilled workers under the supervision of experts and the applicators must use all personal protective equipment required for the worksite and the task such as goggles, mask and gloves.

## 5. Storage

Storage temperature must be between 5 and 30 °C. Packages must not be exposed to direct sunlight. Under these conditions, the material will retain its properties in unopened containers for 12 months from the production date.

Low temperatures may cause crystallization of the product; in this case, the product can be used after being warmed to +20 °C and homogenized. After prolonged storage, the product must be stirred thoroughly before use.

## 6. Disclaimer

This document is provided for general information and is based on **Stenkim®**'s laboratory data and field experience at the time of publication. **Stenkim®** reserves the right to revise this information without prior notice.

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## 7. Technical Data

| Property                         | Method                | Result                        |
|----------------------------------|-----------------------|-------------------------------|
| Base Polymer                     |                       | Epoxy                         |
| Solids Content (by weight)       |                       | 100%                          |
| Color                            |                       | Catalog, Transparent          |
| Density (transparent)            |                       | 1.25 ± 0.03 g/cm <sup>3</sup> |
| Density (colored)                |                       | 1.2 ± 0.1 g/cm <sup>3</sup>   |
| Application Thickness (per coat) |                       | 5-20 mm                       |
| Adhesion Strength                | EN 1542 (on concrete) | > 3 MPa                       |
| Pot Life @20 °C                  |                       | 30 minutes                    |
| Ready for Sanding @20 °C         |                       | 24-36 hours                   |
| Full Cure Time                   |                       | 2 days                        |
| Shelf Life                       |                       | 1 year                        |
| Packaging                        |                       | 21 kg sets                    |



Stenkim® reserves the right to make changes to the values in this table at any time.

