

1. Product Description

StenScreed® 600G is a three-component polyurethane-based, waterborne, cement and aggregate compounded, high performance polymeric floor coating. It is rapid curing, self-leveling and slip resistant. **StenScreed® 600G** has an excellent thermal and chemical resistance.

It forms a seamless long-lasting and reliable coating system resistant to abrasion, impact and chemicals. It is resistant to organic and inorganic acids and alkalis, oils, fuels, antifreeze, and many chemicals. It creates a smooth, easy to clean, non-tainting, non-dusting and microbiologically inert surface on floors.

With its outstanding physical properties, **StenScreed® 600G** allows pressurized cold - hot water and steam cleaning. **StenScreed® 600G** is formulated in line with contemporary emission expectations and environmental considerations.

2. Uses

StenScreed® 600G is suitable for all indoor areas with forklift, pallet jack and vehicle traffic. It is preferred in environments with frequent cleaning, thermal shocks, solvents and corrosion-causing chemicals. **StenScreed® 600G** can be used in chemical plants, food processing plants, in wet or dry process areas, cold storage and thermal processing facilities, beverage and water filling facilities, restaurants, laboratories, medium and heavy-duty areas, depots, packing facilities, maintenance and repair areas, production facilities, printing houses.

3. Application

3.1. Surface Preparation

It is very important to prepare the surface in a correct and proper manner before **StenScreed® 600G** application. For this reason, if detailed information about the surface condition is provided, the most suitable surface preparation procedures will be recommended by **Stenkim®**. Pull-off strength of the **StenScreed® 600G** application surfaces must be minimum 1.5 MPa.

It can be applied on fresh concrete over 7 days old after inspecting for the necessary pull-off strength. There should be no water on the application surface. Any water seeping through the floor must first be stopped.

The concrete substrate to be applied must be cleaned of dust, dirt, grease oil and other impurities, irregularities and loose parts that may reduce adhesion. Dust and loose materials must be removed. Naturally occurring thin crust created from the slurry on the top layer of new or old concrete should be removed by shot-blasting machines and/or appropriate abrasive equipment.

Holes, voids and cracks on the concrete surface must be repaired by filling with suitable primers or with **StenScreed® 600G** itself.

High Performance Polyurethane Floor Coating

Highlights

- Ideal for load-bearing floors thanks to excellent abrasion resistance
- Resistant to heavy traffic conditions
- Resistant to many chemicals
- Provides excellent thermal compatibility with concrete and is resistant to thermal movements
- Resistance to thermal shocks (+160 °C)
- Thanks to very high impact resistance, does not crack, separate from the surface, or shatter
- Waterborne structure allows application on 7-day-old concrete, can be used in areas with wet cleaning
- Solvent-free and odorless, can be used in all food processing plants, hospitals, laboratories and similar hygiene areas
- Non-slip surface creates safe use areas
- Does not allow bacterial growth, is easy to clean, and has a wide range of uses
- Can follow concrete joints and does not require extra expansion joints



3.2. Primer

StenScreed® 600G can be applied without primer application depending on the quality of the concrete substrate. Under dry concrete conditions **StenAst® 2EP** and **StenAst® 2EP-F** are the preferred primers. If the moisture content of the concrete is above 5%, the waterborne epoxy-based primer **StenAst® 2EP MT** should be used.

If primer is used, sand broadcasting must be applied. For surfaces primed with **StenAst® 2EP**, **StenAst® 2EP-F** or **StenAst® 2EP MT**, the time intervals specified in the user manual of the primer used must be observed.

3.3. Mixing and Application

Main steps of application are; homogenization of A component, mixing the components A and B, adding component C to the A and B mix, pouring the **StenScreed® 600G** onto the surface, spreading with a toothed trowel for the desired thickness and removing air with a spike roller. Pot life of **StenScreed® 600G** is short and affected by ambient temperature. All application steps (mixing, pouring, spreading and rolling) should be completed in approximately 12 to 15 minutes after starting of mixing A and B components.

The entire job must continue at a fast pace and as continuously as possible so that the next set can be joined to the previous one to conceal the junction; there should be no waiting between finishing one set's application and pouring the next. Therefore, teams for mixing, carrying and spreading should be formed, and these teams should work at compatible speeds with each other.

Components must be mixed in the specified ratios. Over or under usage of any component will adversely affect the physical properties of the product. Component A of **StenScreed® 600G** is shaken for 10-30 seconds before its lid is opened. Then all of component A and B is poured into an appropriate size mixing pan, and mixed with a professional speed-adjustable dual mortar mixer for 30 sec.

After components A and B are mixed, component C should be gradually added to the resin mixture while continuously mixing. Do not pour component C all at once. Mixing should continue until a uniform, flowable mix is obtained and the sides and bottom of the container should be scraped with a trowel to work any stuck material into the mortar.

Mixing should continue until the mixture reaches a fluid consistency. In room conditions, the mixture reaches the target fluidity within 2-2.5 minutes from the start of mixing. As the initial temperature drops, this time increases.

There must be no unmixed material left on the walls or at the bottom of the container. Absolutely no water or solvent must be added for viscosity adjustment, and component C must not be under-mixed. The properly mixed **StenScreed® 600G** is poured onto the prepared substrate and spread evenly with an appropriately sized triangular toothed trowel for the desired thickness.

To avoid joint marks, make sure to join the freshly spread mortar before the surface begins to set. To help remove the air dragged into the material during the mixing process, pass a spiked roller over the **StenScreed® 600G** spread on the surface. Spiked roller application must be done with a hard spiked roller within 2 minutes after the coating is spread on the surface.

Rolling must be done promptly after placing **StenScreed® 600G**. All application steps should be done in 10 minutes after mixing is completed. This period shortens in correlation with increasing weather temperature.



4. System Design

System Layers	Brand	Necessity	Dry Film Thickness	Tack-free Time
Surface conditioner	StenAst [®] S	Optional	Nano	30 minutes
Selected primer	StenAst [®] 2EP StenAst [®] 2EP-F StenAst [®] 2EP-W	Optional	300-500 µm	Variable
Aggregate	StenSilica	Required if primer is used	500-1000 µm	
Scratch coat	StenScreed [®] 600G	Optional	2-3 mm	24 hours
Coating layer	StenScreed [®] 600G	Required	6-9 mm	24 hours
Protective top coat	StenCoat [®] AntiUV StenFloor [®] 2PU TOP	Optional	StenCoat AntiUV: 0.2-0.3 mm StenFloor 2PU TOP: 0.1-0.2 mm	12-16 hours

5. Cleaning

Equipment used can be cleaned at the end of the job with **StenSolver CL**.

6. Safety

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

7. Storage

Storage temperature must be between 5 and 30 °C. Packages must not be exposed to direct sunlight. Frozen material cannot be reused.

Under these conditions, the material will retain its properties in unopened containers for 12 months from the production date. The materials must be kept away from open fire and sources that may create fire hazard. Protect the product from freezing.

8. Disclaimer

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

Stenkim[®] warrants that its products conform to the stated specifications on delivery. The buyer is responsible for determining the product's suitability for the intended application and for all conditions of transport, storage, handling, and use. **Stenkim**[®] accepts no liability for results obtained under conditions outside its control. **Stenkim**[®]'s



liability under this warranty is limited to replacement of non-conforming product and excludes any consequential or indirect damages.

9. Technical Data

Property	Method	Result
Base Polymer		Waterborne Polyurethane
Solid Content	EN ISO 3251	100
Color	Catalog	RAL 1001 – Beige RAL 1006 – Maize Yellow RAL 3009 – Oxide Red RAL 6010 – Grass Green RAL 7037 – Dust Gray RAL 7032 – Pebble Gray RAL 7046 – Telegrey
Density	EN ISO 2811-2	2.11 ± 0.05 g/cm ³
Application Thickness		min. 6 mm
Hardness	EN ISO 48-4	D85-90
Adhesion Strength	ASTM D 4541 (on concrete)	>3 MPa (concrete failure)
Impact Resistance	ASTM D 2794, 1 meter, 2 kg	> 200 kg·cm (No Damage)
Compressive Strength	EN 12190	Class II ≥ 50 N/mm ²
Flexural Strength	EN 13892-2	14 MPa
Thermal Expansion Coefficient	EN 1770	2.4 × 10 ⁻⁵ /°C
Cure shrinkage	EN 12617-1	<0.1%
Thermal Aging (70 °C)	EN 1062-11	Pass
Thermal Shock (160 °C)	EN 13867-5	Pass
Thermal Cycling	ASTM C 884	Pass
Pot Life @20 °C	EN ISO 9514	10 minutes
Ready for Light Foot Traffic @20 °C		1 day
Time to open to heavy traffic @20 °C		3 days
Cure Time for Chemical Resistance @20 °C		7 days
Shelf Life		1 year
Packaging		32.5 kg sets

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

