

1. Product Description

StenCare® 2EP 310 is a heavy-duty, solvent-free, pourable epoxy repair and coating material. It has high adhesion and abrasion resistance with resistance to chemicals. It is resistant to weak organic and inorganic acids and alkalis, oils, fuels and antifreeze, and many chemicals.

StenCare® 2EP 310 conforms to specification ASTM C 881 / C 881M Grade 2, Type I, IV, V and Class B and Class C.

2. Uses

StenCare® 2EP 310 is used for repairing old concrete surfaces, broken slab and joint edges, as an adhesion promoter between old concrete and fresh concrete, for rigid anchorages and dowel bar planting and anchoring work. It is used indoors and outdoors, in all kinds of repair where high elasticity is not required. It has excellent adhesion to concrete, metal, wood and similar surfaces, providing a durable and stable repair.

3. Surface Preparation

The surfaces where **StenCare® 2EP 310** will be applied must be dry, free from contaminants such as oil, grease, sealant remains and loose particles. Metal surfaces must be cleaned with a brush. **StenCare® 2EP 310** adheres excellently to many surfaces without primer; however, primer must be used in areas in contact with water and in applications on glass, plastic or rubber.

4. Application

StenCare® 2EP 310 is a two-component material. Components A and B are packed as sets to be completely mixed. Entire component B is added into the container of component A and they are mixed by hand or with a low-speed drill until a homogeneous mixture is obtained.

Mixed material must be used within the pot life, and thickened material must not be thinned and reused. Applying the material with sufficient pressure and avoiding air entrapment will improve adhesion. In surface coating applications the material should be poured on the surface and spread with a toothed trowel.

Once the material is spread, it should be left to self-level and cure without too much disturbance. The coated area should be protected from water, vehicle exhaust and flue gases for 1 hour. For better adhesion, fresh concrete should be placed before the material that has been thoroughly worked into the old concrete surface becomes tack-free.

If the material has cured to a tack-free state, another coat of the material can be applied without removing the previous coat. For repairs and anchorage jobs with aggregates, the aggregates should be added to mixture of A and B components without delay, and all should be mixed for at least two more minutes, then application should be carried out. The moisture present on aggregate particles may lead to unexpected changes in curing time.

Inadequately graded particles may lead to poor load-bearing capacity and application difficulties. For these reasons, either three-component **StenCare® 3EP** should be used instead of **StenCare® 2EP 310**, or adequately graded and dried **StenSilica** aggregates should be used. For rebar fixing and dowel bar installation, complete all operations within the pot life of the material.

Self-Leveling Epoxy Repair and Coating Material

Highlights

- Epoxy-based
- Withstands harsh conditions
- Curing speed can be increased for different weather and job site conditions
- High load bearing capacity
- 100% compatible with concrete
- Resistant to chemicals
- Long-lasting and easy to apply



During dowel bar planting and anchoring work, ensure no voids are left under the material. If complete set of **StenCare® 2EP 310** will not be used, contents of the container must be weighed and partitioned before mixing. Mix ratio by weight must be maintained during this process, otherwise material properties are affected negatively.

5. Cleaning

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

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

It must be stored away from open flame and sources of ignition. Materials should be stored at 5-30 °C in a temperature-controlled environment, protected from daylight and moisture. Under these conditions, the material will retain its properties until the expiration date in unopened packages.

Low temperatures may cause crystallization of the product; in this case, the product can be used after heating and homogenizing at +20 °C. The product must be stirred thoroughly before use after prolonged storage.

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		Epoxy
Solid Content		100
Color		Gray
Density		1.45 ± 0.05 g/cm ³
Hardness (Shore)	EN ISO 48-4	D75-85
Adhesion Strength (2 days)	ASTM C 882	19 MPa
Adhesion Strength (14 days)	ASTM C 882	>25 MPa
Tensile Strength	ASTM D 638	90 MPa
Compressive Modulus	ASTM D 695	1800 MPa
Elongation at Break	ASTM D 638	2.5%
Pot Life @15 °C	ASTM C 881	45 minutes
Pot Life @23 °C	ASTM C 881	30 minutes
Time to open to traffic @20 °C		8 hours
Cure Time for Chemical Resistance		24 hours
Shelf Life		1 Year
Packaging		12.5 kg sets

Stenkim® reserves the right to make changes to the values in this table at any time. *CE: CE marked in accordance with EN 1504-3 (DoP STN-2EP310-0001).*

