

1. Product Description

StenCare® 2EP 311 is a heavy-duty, solvent-free, epoxy-based, thixotropic repair and coating material. It has high adhesion and abrasion resistance, and is resistant to chemicals. It is resistant to weak acids and alkalis, oils, fuels, antifreeze and many other chemicals. **StenCare® 2EP 311** conforms to specification ASTM C 881/C 881M Grade 3, Type I, IV, V, Class B and Class C.

2. Uses

StenCare® 2EP 311 is used for repairing old concrete surfaces, broken slab and joint edges, for rigid installation work and rebar doweling. It is used indoors and outdoors, in all kinds of repair where high elasticity is not required. It has good adhesion to concrete, metal, wood and similar surfaces, providing a permanent and sound repair.

3. Application

3.1. Surface Preparation

The surfaces where **StenCare® 2EP 311** will be applied must be dry, free from contaminants such as oil, grease and residues of previously applied sealant, and free of loose particles. Metal surfaces must be cleaned with a brush. **StenCare® 2EP 311** adheres well to many surfaces without primer; however, primer must be used in areas in contact with water and in applications on glass, plastic or rubber.

3.2. Application

StenCare® 2EP 311 is a two-component material. Components A and B are packaged in correctly proportioned sets. All of 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. Working the material into the surfaces and leaving no air voids beneath it will improve adhesion. In surface coating applications the product is applied with a roller.

The material must not be disturbed excessively after placement and must be left to cure. The coated area must be protected from water, vehicle exhaust and flue gases for 1 hour. For repairs and anchoring work with aggregates, the aggregates must be added to mixture of A and B components without delay, and all must be mixed for at least two minutes, then application must 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. Therefore, in applications of this kind, correctly graded and dried **StenSilica** must be used, or three-component **StenCare® 3EP** must be preferred over **StenCare® 2EP 311**.

In applications such as rebar doweling and fixture installation, take care to complete all operations within the pot life of the material. During rebar doweling and anchoring work, ensure in particular that no voids are left under the material. If a complete set of **StenCare® 2EP 311** will not be used, the container contents must be weighed and

Thixotropic Epoxy Repair and Coating Material

Highlights

- Epoxy-based
- Designed for overhead, vertical and sloped repairs
- Withstands harsh conditions
- High load-bearing capacity
- 100% compatible with concrete
- Resistant to chemicals
- Long-lasting and easy to apply



divided before mixing. The mix ratio by weight must be maintained during this process; otherwise, the material properties are adversely affected.

3.3. Cleaning

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

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

It must be stored away from open flames and ignition sources. Materials must 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 in unopened packages until the expiration 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.

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 purpose and for all conditions of transport, storage, application, 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.



7. Technical Data

Property	Method	Result
Base Polymer		Epoxy
Solids Content (by weight)		100%
Color		Grey
Density		1.65 ± 0.05 g/cm ³
Hardness (Shore)	EN ISO 868	D75-85
Consistency	ASTM C 881	2 mm
Bond Strength (2 days)	ASTM C 882	19 MPa
Bond Strength (14 days)	ASTM C 882	>25 MPa
Compressive Modulus	ASTM D 695	1800 MPa
Elongation at Break	ASTM D 638	2.5%
Pot Life @15 °C	ASTM C 881	30 minutes
Pot Life @23 °C	ASTM C 881	15 minutes
Time to Open to Traffic @20 °C		8 hours
Cure Time for Chemical Resistance		24 hours
Shelf Life		1 year
Packaging		10 kg sets

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

