

SwiftSeal Prime EP11 | Epoxy Concrete Primer

Product Description

SwiftSeal Prime EP11 is a two-component, low-viscosity, 100% solids epoxy primer for concrete. The epoxy primer is ideal for surface preparation of pourous surfaces. EP11 improves bond strength by penetrating the concrete to help reduce pinholes that can form when topcoats are applied. It can be mixed with aggregate to make high strength repair mortars.

Recommended Uses

This product is ideal for cementitious substrates. Can be applied to carbon steel substrates. Contact Elastochem for more details.

NOT RECOMMENDED for stainless, aluminum or galvanized metals

Features

- Solvent-free
- Low viscosity formula
- Impact resistance
- 100% solids, 0 VOCs
- Improves bond strength
- Blush resistant

Storage

12 month shelf life in unopened containers when stored in a dry location between 10-32°C (50-90°F). Keep conatiners tightly sealed when not in use.

Packaging

Kit Size: 10 gallon (38 L) A + B
 Component Size: Component A (Resin) 5 gallon (19 L)
 Component B (Hardener) 5 gallon (19 L)

Environmental Conditions

Ambient and substrate temperatures must be between 10-35°C (50-95°F). Relative humidity must be below 80% during application and the curing time. The dew point of the substrate must be more than 3°C (5°F) above the dew point. Environmental conditions must be maintained throughout the curing process. Moisture and dew must be prevented from accumulating on surface until fully cured.

Health and Safety Information

Appropriate literature has been assembled which provides information concerning the health and safety precautions that must be observed when handling this product. Before working with this product, you must read Safety Data Sheets and become familiar with the available information on its risks, proper use, and handling. Information is available in several forms, e.g., safety data sheets and product labels. For further information contact your Elastochem representative.

Typical Properties*

Attribute	Test	Results
Hardness, Shore	ASTM D2240	80D
Elongation	ASTM D638	4.5%
Water Absorption	ASTM D570	0.20%
Izod Impact (ft-lbs/in of notch)	ASTM D256	0.95
Elcometer Adhesion Concrete	ASTM D4541	> 1325 psi

* Note: This data is based on laboratory tests, application conditions and methods may affect these values

Processing Data

Attribute	Part A	Part B
Mix Ratio (volume)	1	1
Appearance	Clear liquid	Amber liquid
Viscosity, (cps) ASTM D1638	≈ 600 @ 70°F	≈ 135 @ 70°F
Temperature of Chemical In Use (Before Mixing)	15-25°C (60-77°F)	
Induction Time (After Mixing)	None Required	
Pot Life	40 minutes at 21°C (70°F) 15 minutes at 32°C (90°F)	
Environmental Conditions	Substrate temp. at 10-35°C @ < 80% RH	
Re-Coat Window @ 21°C (70°F)	Minimum 12 hours Maximum 72 hours	
Primer Drying Time @ 21°C (70°F)	Light Traffic: 24-48 hours Full Cure: 5 days	
Application Thickness	Target: 8-10 mils	
Coverage	4-5 m ² (160-200 ft ²) / US gal.	

DISCLAIMER: This data is based on information believed to be reliable and is offered solely for evaluation. Elastochem Specialty Chemicals Inc.'s products are sold with the understanding that clients do their own testing to determine the suitability of these products for their particular application. Since the use of this product is beyond the control of the Seller, the Buyer assumes all risks of use or handling, whether in accordance with directions or not, as the Seller makes no warranty, expressed or implied, concerning this product.

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Application

These application instructions are to be used as a guide. Adjustments to the application instructions may be required based on specific site conditions. A test patch should be used to confirm the product performance and application techniques for each project.

Concrete Surface Preparation

New Concrete: New concrete must be cured a minimum of 5 days prior to application of the primer. The concrete surface should be structurally sound (>200psi as per ASTM D7234). The surface must be clean, dry (less than 5% surface moisture, ASTM E1907), and free of dirt and contaminants. Any laitance or efflorescence must be removed from the surface. Concrete should be shot blasted or surface ground to achieve a surface profile of CSP 2 or 3.

Old Concrete: Old concrete must be cleaned of all previous coatings back to bare concrete. Any spalling, chipping or otherwise unsound concrete must be removed and repaired before application of epoxy primer. Large holes and cracks must be filled with suitable material.

Concrete should have a low moisture vapour transmission (<3lb/24hr/1000ft², RMA test method).

Mixing

The epoxy primer is a two-component system which is mixed using a volume ratio of 1:1 Part A to Part B by volume.

- If a tint is used in the system, base (Part A) must be thoroughly pre-mixed to properly disperse pigment before mixing with hardener.
- Pails with volume markings can be used to provide a reliable gauge of measuring out the correct volumes of chemicals.
- Mix chemicals slowly at a speed of 450 - 750 RPM using a Jiffy mixing blade for a minimum of 3 minutes.
- **Do not mix at high speeds, which can cause air entrainment.**
- Scrape down the side of the container while mixing to ensure a complete blend of the epoxy.
- The epoxy can be used immediately after mixing with no induction time required.
- Do not mix more than can be used within the pot life of the chemical; keep in mind that pot life is reduced in warmer conditions.

- Do not scrape side of container when pouring out mixed material.
- Do not reuse container for mixing additional material.

Preparation

Protect surfaces around the application area with tape or other protective means. Ensure surface will not be affected by dew or precipitation. Ensure that primer does not puddle or build up in joints or crevices.

Application Procedure

After the material has been properly mixed, pour a large amount of the product onto the substrate in a long ribbon. The poured material can be spread out by using a flat EDPM rubber squeegee. The resulting material can be back rolled and cross rolled using a lint-free 3/8" nap roller. Keep application area within the recommended environmental conditions during curing.

If re-coat time is exceeded, primer must be abraded, wiped with acetone or MEK and clean cloths, and reapplied with fresh material.

Acetone can be used to clean equipment. Hardened material must be removed by mechanical means.

Repair Mortars

An epoxy mortar can be created to repair cracks and for filling voids or bug holes in concrete. To make epoxy repair mortar, gradually add clean, dry 20-40 mesh silica sand to previously mixed epoxy primer and mix thoroughly for 3 to 5 minutes. The mix ratio of sand to mixed epoxy is approximately 3 to 1 by volume. This ratio can be modified depending on the desired consistency.

Two-Coat Applications

If required, the second coat (only), can be fully broadcast with an associated aggregate to allow for an extended overcoat time or a shear bond of the next coating. Contact an Elastochem technical representative for additional details.

Blooming

If epoxy primer gets wet during cure (rain, dew or fog), the surface will "bloom". This is evidenced by white spots that must be ground off. Epoxy primer must then be re-applied.



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