

SET-3G[®]

Epoxy Adhesive Used As Paste Over

SIMPSON

Strong-Tie[®]

CSI Specification: 03 01 00 Maintenance of Concrete

DESCRIPTION

SET-3G is a two-component epoxy which can be used as a paste-over to seal cracks and secure injection ports at the surface of concrete substrates prior to implementing an epoxy or urethane foam injection repair. When properly mixed, the product will be a uniform teal color. SET-3G is rigid when cured. When the crack repair is complete, the paste-over may be left in place or ground or chiseled off the concrete substrate.

ASSESSMENT

WHERE TO USE

- Paste over and seal cracks while securing injection ports to the surface of concrete substrates prior to injecting an epoxy or urethane crack repair product

FEATURES

- 1:1 two-component, high-solids, epoxy amine-based adhesive
- Mixed material is a uniform teal color
- Non-sag paste consistency for horizontal, vertical or overhead applications
- Strong substrate bond; requires chipping to remove

PRODUCT DATA

All testing performed at 73°F (23°C) and 50% R.H. unless noted otherwise.

Generic Description

Paste-over epoxy

Packaging

22 oz. (650 mL) dual cartridge

SET-3G22-N includes one static mixing nozzle — EMN221

Color

Mixed Epoxy: Gray

Mixing Ratio

1A:1B

Product Yield

39 in.³ / 22 oz. cartridge

Storage

Store dry between 45° and 90°F (7°–32°C)

Shelf Life

2 years in unopened packaging

VOC

1.9 g/L (mixed)

TECHNICAL INFORMATION

The data herein is based on laboratory testing under controlled conditions. Variations may result from mixing methods and jobsite conditions.

Viscosity

ASTM C881

Non-sag

Gel Time

ASTM C881

35 minutes at 70°F (21°C)

75 minutes at 50°F (10°C)

Cure Time

24 hours at 70°F (21°C)

72 hours at 50°F (10°C)

PLANNING

LIMITATIONS

- Do not apply to surfaces below 50°F (10°C).
- Material is a vapor barrier after cure. Concrete surface must not exhibit an active moisture vapor drive.
- Adhesion and product compatibility testing must be performed.
- Product may discolor if exposed to direct sunlight.
- Not recommended for large exterior repairs or applications subject to large thermal change.

PREPARATION

SURFACE PREPARATION

Clean the crack and the surface surrounding it to allow the paste-over to bond to sound concrete. At a minimum, the surface to receive paste-over should be brushed with a wire brush. Oil, grease or other surface contaminant must be removed in order to allow the paste-over to bond properly. Take care not to impact any debris into the crack during cleaning. Using clean, oil-free compressed air, blow out the crack to remove any dust, debris or standing water. Where a surfacing material has been removed using an acid or chemical solvent, prepare the crack as follows:

1. Using clean, compressed air, blow out any remaining debris and liquid.
2. Remove residue by high-pressure washing or steam cleaning.
3. Blow any remaining water from the crack with clean compressed air.

If a coating, sealant or paint has been applied to the concrete, it must be removed before placing the paste-over epoxy. Under the pressure of injection, these materials may lift and cause a leak. If the surface coating is covering the crack, it may be necessary to route out the opening of the crack in a "V" shape using a grinder in order to get past the surface contamination.

MIXING

Side-by-side cartridge dispensing provides reliable mixing and ratio control when used with Simpson Strong-Tie[®] mixing nozzles.

EXECUTION

APPLICATION

Apply to concrete 50°F (10°C) or above. For best results, adhesive should be 70°F (21°C) to 80°F (27°C) at time of application. To warm cold material, store cartridges in a warm, uniformly heated area or storage container. Do not immerse cartridges in water or use microwave to facilitate warming.

SEALING OF THE CRACK

1. Apply a small amount of paste-over around the bottom of the injection port base. Place the port at one end of the crack and repeat until the entire crack is ported. Do not allow paste-over to block the port or the crack under it; this is where the injection epoxy must enter the crack.
2. Using a putty knife or other paste-over tool, generously work paste-over along the entire length of the crack. Take care to mound the paste-over around the base of the port to approximately ¼" thick extending 1" out from the base of the port and to work out any holes in the material. It is recommended that the paste-over should be a minimum of ⅜" thick and 1" wide along the crack. Insufficient paste-over will result in leaks under the pressure of injection. If the crack passes completely through the concrete element, seal the back of the crack, if possible. If not, epoxy may be able to run out the back side of the crack, resulting in an ineffective repair.
3. Allow the paste-over to harden before beginning injection. Spreading paste-over into a thin film (approximately ⅛") on the mixing surface will slow curing by allowing the heat from the reaction to dissipate.

REMOVING SET-3G

If desired, SET-3G can be removed once the injection epoxy has cured. Remove with a chisel, scraper or grinder. Using a heat gun to soften the epoxy is recommended when using a chisel or scraper.

CAUTION

Resin: WARNING! Causes skin and serious eye irritation. May cause an allergic skin reaction.

Hardener: DANGER! Causes severe skin burns and serious eye damage. May cause an allergic skin reaction.

Protective Measures: The use of safety glasses and chemical-resistant gloves is recommended. Use appropriate clothing to minimize skin contact. The use of a NIOSH-approved respirator is required to protect respiratory tract when ventilation is not adequate to limit exposure below the permissible exposure limit (PEL). Refer to Safety Data Sheet (SDS) available at strongtie.com/sds for detailed information.

FIRST AID

Eye Contact: Immediately flush eyes with plenty of cool water for at least 15 minutes while holding the eyes open. If redness, burning, blurred vision, or swelling persists, seek medical advice.

Skin Contact: Remove product and wash affected area with soap and water. Do not apply greases or ointments. Remove contaminated clothing. Wash clothing with soap and water before reuse. If redness, burning, or swelling persists, seek medical advice.

Ingestion: DO NOT INDUCE VOMITING. Seek medical advice. Never administer anything by mouth to an unconscious person. Rinse mouth out with water. Never leave affected person unattended. If vomiting occurs spontaneously, lay individual on their side, keeping head below hips to prevent aspiration of material into lungs.

Inhalation: Remove patient to fresh air. If affected person continues to experience difficulty breathing, seek medical advice.

CLEAN-UP

Spills: Construct a dike to prevent spreading. Soak up with absorbent material such as clay, sand, or other non-reactive material. Place in leak-proof containers. Keep out of sewers, storm drains, surface waters, and soils.

Surface Clean: Clean spills and drips from surfaces with solvent (MEK, acetone, etc.). Cured material can be removed only by mechanical means.

Tools and Equipment: Clean all tools and equipment with solvent (MEK, acetone, etc.). Cured material can be removed only by mechanical means.

Skin: Use a non-toxic, pumice-based soap, citrus-based hand cleaner, or waterless hand-cleaner towel. Never use solvents to remove product from skin.

Disposal: Dispose of container and unused contents in accordance with federal, state, and local requirements. Containers may be recycled; consult local regulations for exceptions.

LIMITED WARRANTY

This product is covered by the Simpson Strong-Tie RPS Product One-Year Limited Warranty, which is available at strongtie.com/limited-warranties or by calling Simpson Strong-Tie at (800) 999-5099.

IMPORTANT INFORMATION

It is the responsibility of each purchaser and user of each product to determine the suitability of the product for its intended use. Prior to using any product, consult a qualified design professional for advice regarding the suitability and use of the product, including whether the capacity of any structural building element may be impacted by a repair. As jobsite conditions vary greatly, a small-scale test patch is required to verify product suitability prior to full-scale application. The installer must read, understand, and follow all written instructions and warnings contained on the Limited Warranty, product label(s), Product Data Sheet(s), Safety Data Sheet(s), and the strongtie.com website prior to use. For industrial use only by qualified applicators. KEEP OUT OF REACH OF CHILDREN!

 **WARNING!** Cancer and reproductive harm — www.P65Warnings.ca.gov.