

SET-3G™ high-strength epoxy adhesive submerged concrete hole installation



Water-filled holes? Water-soaked concrete? Underwater anchoring? No problem.

SET-3G high-strength epoxy adhesive is the versatile adhesive you need for ease of installation in the best and worst environmental conditions. SET-3G adhesive is approved for saturated concrete and water-filled holes, and now for submerged (underwater) hole installations. During the installation of SET-3G, when the correct installation processes are followed, there is no performance difference between water-saturated concrete, water-filled holes, or submerged concrete. When your jobsite requires underwater anchor installation or could experience weather conditions that would otherwise put your work on hold, SET-3G allows you to continue the job.

Features

- Exceptional performance — excellent bond strengths in all applications including submerged, water-filled, damp and dry holes
- Design flexibility — improved sustained load performance at elevated temperature
- Jobsite versatility — can be specified for all base material conditions when in-service temperatures range from -40°F (-40°C) to 176°F (80°C)
- Recognized per ICC-ES AC308 for use in anchoring all types of threaded rods (including stainless), rebar and post-installed rebar development and splice length installations

Codes

- Concrete — ICC-ES ESR-4057 (including post-installed rebar connections and City of LA); FL15730
- Masonry — coming 2021
- ASTM C881 and AASHTO M235 — Types I/IV and II/IV, Grade 3, Class B&C
- UL Certification — CDPH Standard Method v1.2
- NSF/ANSI/CAN 61 (216 in.² / 1,000 gal.)
- For use with potable water



Submerged concrete hole installation.

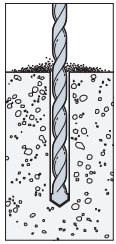


Product Information

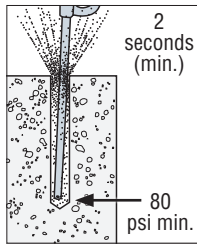
Mix Ratio/Type	1:1 epoxy
Mixed Color	Gray
Base Materials	Concrete — cracked and uncracked
Base Material Conditions	Dry, water-saturated, water-filled, submerged
Anchor Type	Threaded rod (including stainless steel) or rebar
Substrate Installation Temperature	40°F (4°C) to 100°F (38°C)
In-Service Temperature Range	-40°F (-40°C) to 176°F (80°C)
Storage Temperature	45°F (7°C) and 90°F (32°C)
Shelf Life	24 months
Volatile Organic Compound (VOC)	2 g/L
Manufactured in the USA using global materials	

Adhesive Anchoring Installation Instructions

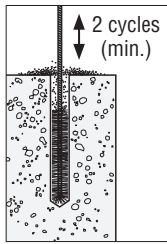
1A Hole Preparation Standard Equipment – Horizontal, Vertical and Overhead Applications



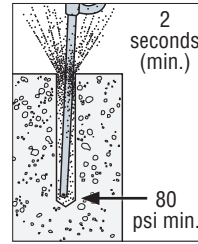
1. Drill.
Drill hole to specified diameter and depth.



2. Blow.
Remove dust from hole with oil-free compressed air for a minimum of two seconds. Compressed air nozzle must reach the bottom of the hole.



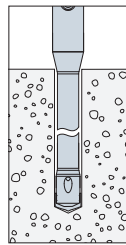
3. Brush.
Clean with a steel wire brush for a minimum of two cycles. Brush should provide resistance to insertion. If no resistance is felt, the brush is worn and must be replaced.



4. Blow.
Remove dust from hole with oil-free compressed air for a minimum of two seconds. Compressed air nozzle must reach the bottom of the hole.

Visit strongtie.com for proper brush part number.

1B Hole Preparation Vacuum Dust Extraction System with the Simpson Strong-Tie® DXS Hollow Carbide Drill Bit* – Horizontal, Vertical and Overhead Applications



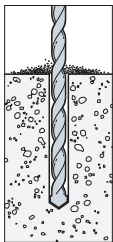
1. Drill.
Drill hole to specified diameter and depth using the Simpson Strong-Tie DXS hollow carbide drill bit and vacuum dust extraction system.*



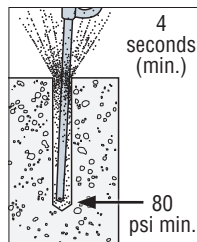
Simpson Strong-Tie DXS drill bit used with the vacuum dust extraction system.*

*Note: Visit strongtie.com for tested and accepted hollow carbide drill bit and vacuum dust extraction systems.

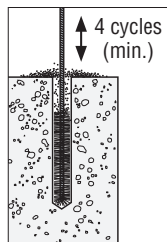
1C Hole Preparation Post-Installed Reinforcing Bar Connections – Horizontal, Vertical and Overhead Applications



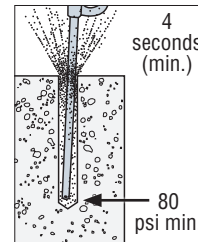
1. Drill.
Drill hole to specified diameter and depth.



2. Blow.
Remove dust from hole with oil-free compressed air for a minimum of four seconds. Compressed air nozzle must reach the bottom of the hole.



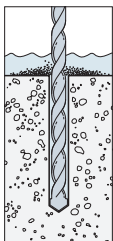
3. Brush.
Clean with a nylon brush for a minimum of four cycles. Brush must reach the bottom of the hole. Brush should provide resistance to insertion. If no resistance is felt, the brush is worn and must be replaced.



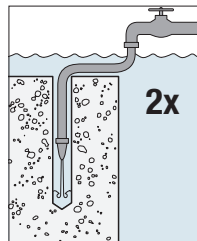
4. Blow.
Remove dust from hole with oil-free compressed air for a minimum of four seconds. Compressed air nozzle must reach the bottom of the hole.

Visit strongtie.com for proper brush part number.

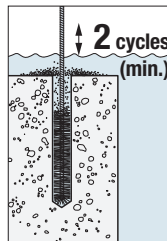
1D Hole Preparation – Submerged Applications



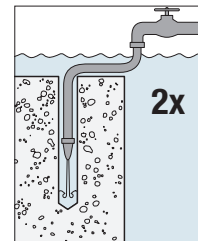
1. Drill.
Drill hole to specified diameter and depth.



2. Flush.
Remove slurry from hole by flushing hole twice with water until water runs clear.



3. Brush.
Clean with a steel wire brush for a minimum of two cycles. Brush should provide resistance to insertion. If no resistance is felt, the brush is worn and must be replaced.



4. Flush.
Remove slurry from hole by flushing hole twice with water until water runs clear.

Visit strongtie.com for proper brush part number.

Installation instructions continued on p. 3. ➔

Adhesive Anchoring Installation Instructions

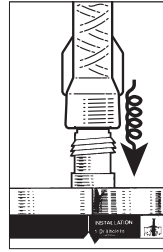
2 Cartridge Preparation

1. Check.

Check expiration date on product label. Product is usable until end of printed expiration month. **Do not use expired product.**

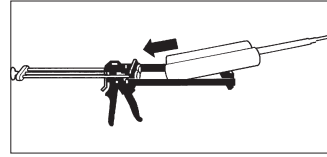
2. Open.

Open cartridge per package instructions.



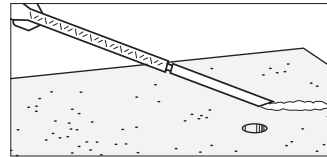
3. Attach.

Attach proper Simpson Strong-Tie® nozzle and extension to cartridge. Do not modify nozzle.



4. Insert.

Insert cartridge into dispensing tool.



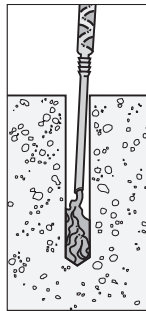
5. Dispense.

Dispense adhesive to the side until properly mixed (uniform color).

3A Filling the Hole — Vertical Anchorage

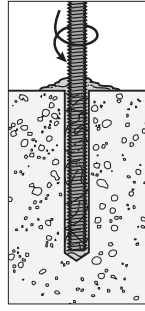
Prepare the hole per “Hole Preparation” instructions on product label.

Dry and Damp Holes:



1. Fill.

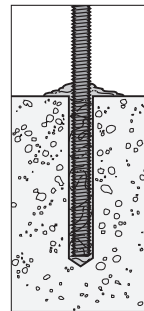
Fill hole 1/2 to 2/3 full, starting from bottom of hole to prevent air pockets. Withdraw nozzle as hole fills up.



2. Insert.

Insert clean, oil-free anchor, (marked with the required embedment depth), turning slowly until the anchor contacts the bottom of the hole.

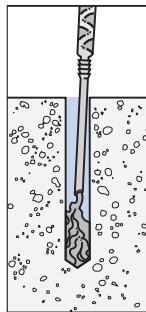
Threaded rod or rebar



3. Do not disturb.

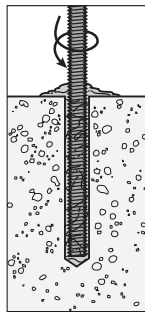
Do not disturb load or torque anchor until fully cured.

Water-Filled Holes:



1. Fill.

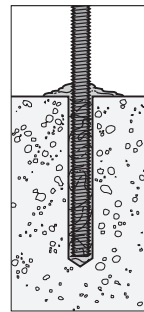
Fill hole completely full, starting from bottom of hole to prevent water pockets. Withdraw nozzle as hole fills up.



2. Insert.

Insert clean, oil-free anchor, (marked with the required embedment depth), turning slowly until the anchor contacts the bottom of the hole.

Threaded rod or rebar



3. Do not disturb.

Do not disturb load or torque anchor until fully cured.

Note: Nozzle extensions may be needed for deep holes.

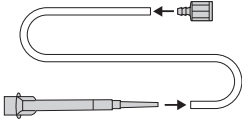
Installation instructions continued on p. 4. →

Adhesive Anchoring Installation Instructions



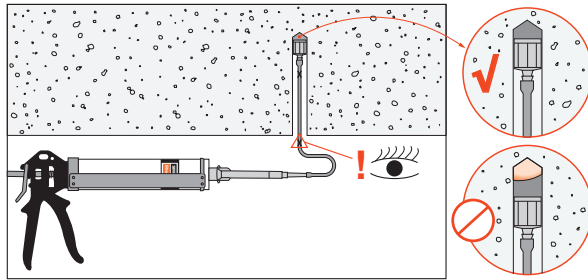
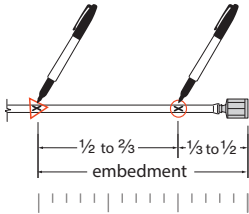
3B Filling the Hole — Horizontal and Overhead Anchorage

Prepare the hole per "Hole Preparation" instructions on product label.



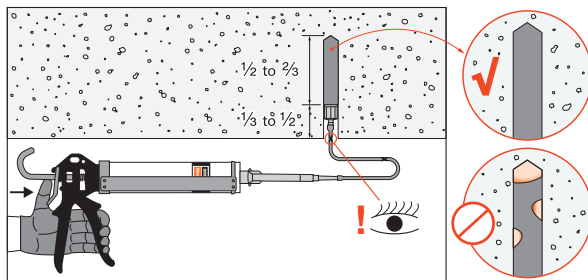
Step 1

- Attach the piston plug to one end of the flexible tubing (PPFT25).
- Cut tubing to the length needed for the application, mark tubing as noted below and attach other end of tubing to the mixing nozzle.
- If using a pneumatic dispensing tool, regulate air pressure to 80–100 psi.



Step 2

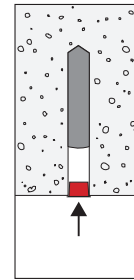
- Insert the piston plug to the back of the drilled hole and dispense adhesive.



Step 3

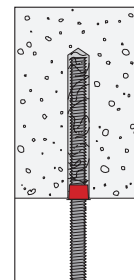
- Fill the hole $\frac{1}{2}$ to $\frac{2}{3}$ full.

Note: As adhesive is dispensed into the drilled hole, the piston plug will slowly displace out of the hole due to back pressure, preventing air gaps.



Step 4

- Install the appropriate Simpson Strong-Tie® adhesive retaining cap.

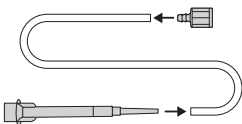


Step 5

- Place either threaded rod or rebar through the adhesive retaining cap and into adhesive filled hole.
- Turn rod/rebar (marked with the required embedment depth) slowly until the insert bottoms out.
- Do not disturb load or torque anchor until fully cured. For overhead installations, the anchor must be secured from movement during the cure time (e.g., wedges or other restraint methods).

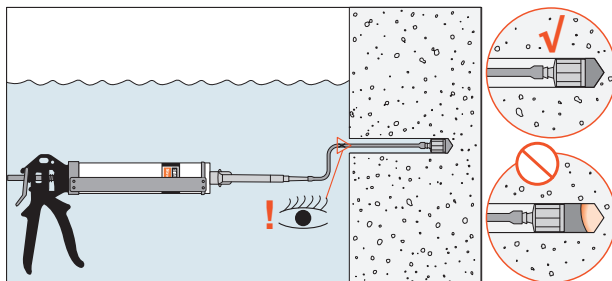
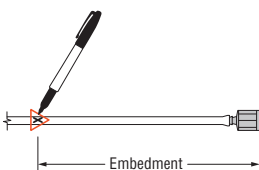
3C Filling the Hole — Submerged Anchorage

Prepare the hole per "Hole Preparation" instructions on product label.



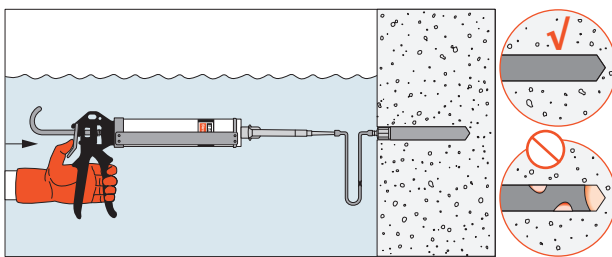
Step 1

- Attach the piston plug to one end of the flexible tubing (PPFT25).
- Cut tubing to the length needed for the application, mark tubing as noted below and attach other end of tubing to the mixing nozzle.
- If using a pneumatic dispensing tool, regulate air pressure to 80–100 psi.



Step 2

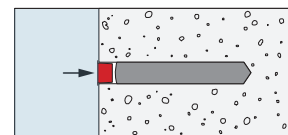
- Insert the piston plug to the back of the drilled hole and dispense adhesive.



Step 3

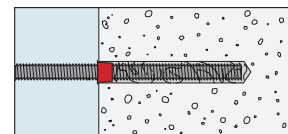
- Fill the hole completely full.

Note: As adhesive is dispensed into the drilled hole, the piston plug will slowly displace out of the hole due to back pressure, preventing air gaps.



Step 4

- Install the appropriate Simpson Strong-Tie® adhesive retaining cap.



Step 5

- Place either threaded rod or rebar through the adhesive retaining cap and into adhesive filled hole.
- Turn rod/rebar (marked with the required embedment depth) slowly until the insert bottoms out.
- Do not disturb load or torque anchor until fully cured.