

STITCH-TIE® BAR

Provides supplemental reinforcement in mortar joints

The stainless steel Stitch-Tie Bar repairs cracked masonry and can provide reinforcement to create structural beams within existing masonry walls. The Stitch-Tie Bar is installed with SureGrout S, which is a high-performance, non-corrosive, non-oxidizing, non-shrinking, thixotropic, cement-based grout that's suitable for injecting by hand.

The bar is composed of stainless steel, twisted with a helical-pitched thread to provide intimate contact with the surrounding material. When used together with SureGrout S, they offer a superb combination of axial strength and flexibility, which helps absorb further localized stress.



CRACK REINFORCEMENT



CORNER CRACKING

2	
2	

HELICAL BEAMING TO REINFORCE ROUGH OPENINGS



4.5mm x 33' long coils 6mm x 40" long segme 6mm x 10' long coils 6mm x 33' long coils

> - 4.5mm or 6mm - nominal fin diameter

ength and

Intimate Contact to surrounding material

- helical pitch -

-pitch-

Load distributed over the contact area of anchor

Stitch-Tie Bar Physical Characteristics*

nominal dimensions	
Outside Tie Diameter	6mm
Mass: Ib/ft (kg/m)	0.043 (0.062)
Cross Sectional Area: in ² (mm ²)	0.012 (8)
Yield Strength: ksi (N/mm²)	108 (745)
Ultimate Tensile Strength: ksi (N/mm²)	130 (1060)
Ultimate Shear Load: Ibs (N)	265 (1180)
Elastic – Modulus: ksi (Gpa)	22,625 (156.3)
Helix Angle: (to longitudinal axis)	32.14 ⁰
Pitch Length: in. (mm)	0.59 (15)
Helical Pitch Length: in. (mm)	1.18 (30)

* Material: ASTM A580 TYPE 304 Stainless Steel

Stitch-Tie Bar Kit

- SureGrout S
 - 3 liter tub, 3900psi (27.5 Mpa) compressive strength
- 30 oz. Crack Stitching Gun and Nozzle
- Mixing Paddle



Crack Stitching with Stitch-Tie Bar

The Stitch-Tie Bar is used to repair cracked masonry and can provide reinforcement to create structural beams from existing brick veneers. The bars are manufactured of Type 304 stainless steel (Type 316 available upon request). The Stitch-Tie Bar and SureGrout S provide excellent bonding characteristics within the masonry. When used together, Stitch-Tie Bar offers a superb combination of axial strength and flexibility, which helps absorb further localized stress. They are installed in existing mortar bed joints that have had mortar removed to accommodate the bar and grout material.





Installation Instructions:

Reinforce cracked masonry with 6mm (or 4.5mm for thin mortar joints)



GRIND AWAY EXISTING MORTAR.

Grind existing mortar 1-1/2" to 2" in depth and clean with water prior to installation





APPLY A BEAD OF SUREGROUT S AT THE BASE OF THE GROUND JOINT.

SureGrout S preparation: Mix the two-part, ready-to-mix packs of powder with the provided admixture. Pour the liquid into the pail provided, pour the powder slowly into the pail, and mix with a paddle mixer for a full 2 minutes, ensuring that the powder is completely blended. (No additional water or powder should be added.) Once mixed, the grout is ready to be used and has a usability time of 45 minutes. Cover pail from direct sunlight.



INSERT STITCH-TIE BAR INTO BEAD OF SUREGROUT S.



APPLY SECOND/THIRD BEAD OF SUREGROUT S OVER STITCH-TIE BAR, and compact with appropriate trowel.



If an **ADDITIONAL REINFORCING** Stitch-Tie Bar is required, repeat steps 3 & 4. Compact with trowel when complete and allow enough room in slot to re-point with mortar.

for helical beaming applications

Additional Installation Notes:

- 1. When installing in a non-linear joint, the Stitch-Tie Bar can be bent to follow the mortar's path or even be turned 90 degrees, wrapping a corner.
- 2. For areas where multiple vertical cracks are in close proximity, extend the Stitch-Tie Bar 20" past the outermost cracks. Either a longer length coil could be used and cut to size, or shorter lengths can be lapped (providing a minimum 12" overlap).
- 3. For multi-wythe walls, where it is observed that the crack propagates through the full thickness, the wall should be repaired on both sides, if accessible.
- 4. SureGrout S can be re-agitated by re-mixing the remaining contents in the pail to achieve a blended consistency again. DO NOT add additional water.
- 5. Under no circumstances should the grout be used where freezing may occur within 24 hours. The grout performance may be impaired if not protected from freezing.
- 6. Suregrout S can be pointed after installation once thumb-print hard.
- 7. Coatings can be applied to Suregrout S after being allowed to cure for 24 hours.