

PRODUCT DATA SHEET

Jahn M85 Helical Tie Grout

Helical Ties are effective for strengthening cracked substrates. Helical Ties can also be used to strengthen lintels and to stitch together a cracked concrete or masonry substrate. Helical ties are also effective in shoring up loose connections between cladding masonry and the supporting concrete or masonry.

FEATURES AND BENEFITS

- **Single-Component:** Easy to mix correctly, thereby improving quality control at the point of injection.
- **Compatible Formulation:** Compatibility of physical properties ensures that the grout and natural substrate react to the environment in the same way.
- **Tenacious Adhesion:** Strong bonding capabilities.
- **Factory Controlled:** No field chemistry resulting in product variation.
- **Low Viscosity:** Deep, thorough penetration.
- **Simple Application:** Can be applied by low pressure pumping.
- **Water Based:** Environmentally and user safe. No solvent clean up or disposal problems.
- **Low Leading-Edge Slump:** Leading Edge can be easily controlled during injection to prevent seepage or leakage into undesired depths.

APPLICATION PROCEDURES

Surface Preparation

Wash the surface and interior of the crack or void using clean water to remove all dust, loose or deleterious material, which could prevent proper flow and/or adhesion thereby compromising the integrity of the cured injection grout.

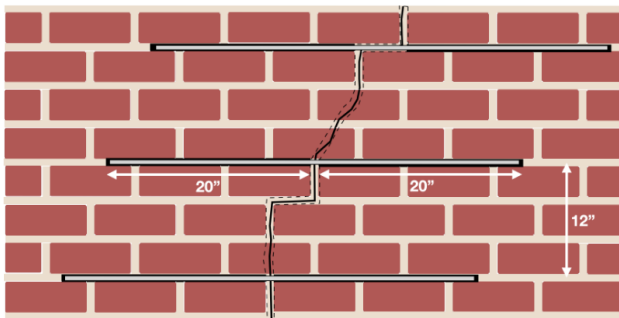
Mixing

The mixing ratio is approximately 3 to 3½ parts powder to 1 part water by volume. Mix by hand or mechanically, using a slow speed drill (400 -600 RPM) equipped with a Jiffler-type mixing paddle. The material should be mixed for a minimum of three minutes and with continued agitation. Additional or repeated agitation is necessary if the grout is allowed to sit prior to use. Mix small amounts at a time due to rapid setup time.

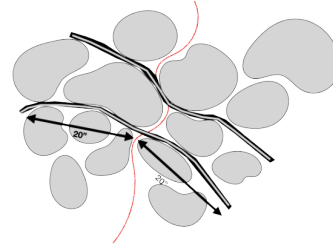
Repair Procedures

Stitching

Prepare the masonry for the insertion of the Helical Ties. The masonry must be excavated in 1-1/4 to 1-1/2 inch deep grooves that extend 20-inches from either side of the crack and are spaced 12-inches. In Brick or stone substrate, cut the grooves in the pointing mortar and space as close to 12-inches and parallel as the mortar lines allow.



In stone masonry, the grooves will need to curve along with the pointing mortar. The Helical Ties will need to be bent to fit in these curvilinear grooves.

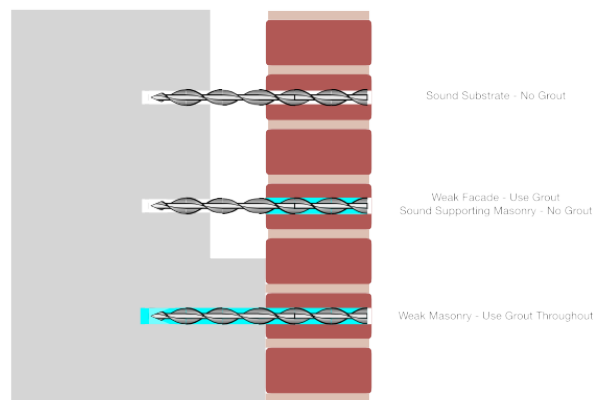


After the grooves have been cut out, use a pressurized water spray to clean out the dust and debris. While the grooves are still glistening wet, apply a 3/4-inch bead of Jahn M85 Helical Tie Grout deep in the groove. Ensure the bead fills the full height of the groove.

Set the Helical Tie into the grout about half its diameter. Apply more Jahn M85 Helical Tie Grout to fully encapsulate the Helical Tie. Allow for a 1/2-inch application of an applicable color matched Jahn Repair Mortar to cover the grout.

Wall Ties

In most cases where a Helical Wall Tie is to be inserted into a masonry wall as an anchor to support a masonry facade, grout will not be required. The ties are designed to hold the facade when the masonry substrates are sound. In weak substrates, use a drill size that is the same diameter of the Helical Wall Tie. The tie can be worked into the hole by screwing it in by hand. In this case, inject M85 Helical Tie Grout into the hole for about a third of the hole depth. Insert the tie, then inject more grout to fill the void between the tie and masonry. Leave about 1/2-inch of the hole empty for a later application of an applicable color matched Jahn Repair Mortar.



Once the Helical Tie reinforcement work is complete, the crack in the substrate should be repaired with an application of an appropriate Jahn Injection Grout. The surface of the brick, stone, or other masonry substrate should be repaired with an appropriate color matched Jahn Repair Mortar for that substrate. Refer to the instructions of these products for their application.

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Clean Up

While injecting, continually check for grout runs and spills on the surface of the masonry, and clean the surface before the grout has time to set. This is normally done with a clean sponge and water, and may have to be repeated several times, rinsing the sponge with clean water.

Remove uncured grout from tools and equipment with water as soon as possible. Cured grout may only be removed chemically or mechanically.

SAFETY REQUIREMENTS

It is recommended that safety goggles, gloves, and a dust mask equipped with P-2 filters (or equivalent) be worn for protection while mixing the grout.

Limitations

- Do not apply Jahn Helical Tie Grout to a frozen or hot substrate. The applied grout must be protected from extreme heat, freezing, excessive wind, direct sunlight, and rain. Ambient temperature range should be 40° F to 90° F with low to average humidity.
- Do not add bonding agents to Jahn Helical Tie Grout or use them as surface preparation material.

PACKAGING

A two-gallon plastic pail contains approximately 18 lb. of material. Coverage will vary depending on the type of substrate and the size of the crack.

STORAGE AND SHELF LIFE

Store material in a dry area away from direct sunlight. Ambient storage conditions should be in the range of 40° F to 90° F with low to average humidity. Average shelf life is 2 years in original, unopened packaging.

TECHNICAL DATA

Jahn M85 - Helical Tie Grout

LIQUID/PLASTIC PHASE	
Volume mixed M85 in fluid oz. per lb. of dry material	14.3 fl oz/lb (approx.)
HARDENED PHASE	
Compressive strength	1500 to 4400 psi
Tensile bending strength	290 to 730 psi
Tensile strength	58 to 100 psi
Ratio in/3 water/lb of dry material	5.3 to 6.0 fl. oz/lb.
Specific gravity	1.3 (approx.)

WARNING

Not for internal consumption. Keep out of reach of children and animals. Consult Material Safety Data Sheet (MSDS) for specific information.

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