

mart-REPAIR CRACK INJECTION

SUPER LOW VISCOSITY, TWO COMPONENT EPOXY OFFERING OUTSTANDING PENETRATION PROPERTIES, SUPERIOR STRENGTH AND DURABILITY

DESCRIPTION

mart-Repair Crack Injection, is a high-strength, low viscosity epoxy crack injection and anchoring grout. Due to its super low viscosity, it will flow into hairline cracks in various structures, offering excellent bonding and durability, **mart-Repair Crack Injection** meets or exceeds ASTM C 881/C 881M -02, Type I to V, Grade 2, Class E for application, viscosity, and temperature of application.

CHARACTERISTICS/ADVANTAGES

- Easy application.
- Excellent adhesion to concrete and steel surfaces.
- No VOC's, solvent free epoxy. This makes it environmentally friendly and safe for construction applications.
- Fills fine hairline cracks.
- Gravity feeding.
- High bond strength to concrete.
- No shrinkage.

TYPICAL USES

- Filling of voids behind tiles or stone facades.
- Sealing of cracks ranging from 0.1mm to 10mm width, versatile solutions for various crack sizes.
- Stabilize and repair cracks in structural beams, columns and slabs.
- Grouting of dowels.

APPLICATION PROCEDURE

Surface Preparation:

- Surface must be sound, clean, free of oil & grease, dirt, dust, cement laitance & other foreign material.
- Remove all loose concrete and dust.

Mixing:

- Mixing must not take place in temperatures below 5°C
- With a small trowel, stir Part A resin and Part B activator separately.
- Add the entire contents of Part B (activator) to Part A (base). Do not part mix
- Mix with a mixing paddle attached to a slow speed drill (max. 300 rpm) for at least 3 – 5 minutes.
- Mix thoroughly until uniform colour is obtained. Incomplete mixing will result in poor physical properties or partial cure.



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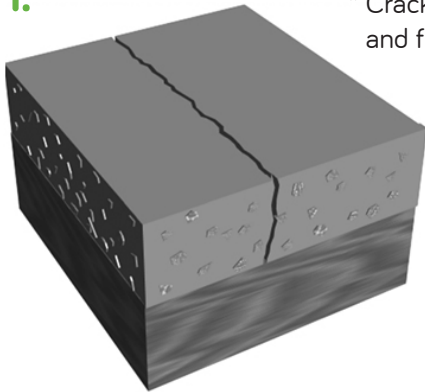
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APPLICATION PROCEDURE

APPLICATION FOR CRACKS IN HORIZONTAL SLABS (GRAVITY FEED)

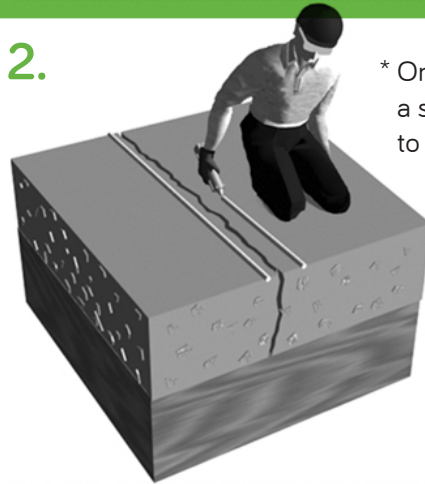
- With an oil-free compressor, blow cracks clean of dust or other loose particles.
- If cracks run all the way through and the underside of the deck or slab is accessible, seal the underside of cracks at least temporarily to prevent resin loss
- Create a reservoir (dam) by placing a bead of silicon sealant or putty along each side of the crack to form the reservoir.
- Pour mixed material (within pot life of epoxy) over the top of the crack to fill the reservoir.
- Allow time for **mart-Repair Crack Injection** to slowly penetrate the crack (20 – 30 mins), look for air bubbles escaping from crack as epoxy displaces air.
- Keep filling the crack with epoxy until crack no longer accepts epoxy. (flush with surface)
- Remove excess epoxy with flat rubber squeegee.
- Once fully cured remove excess epoxy by grinding off the surface.

1.



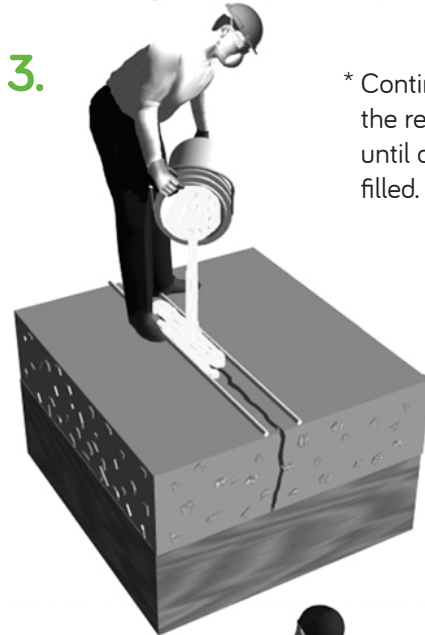
* Cracks must be clean and free of debris.

2.



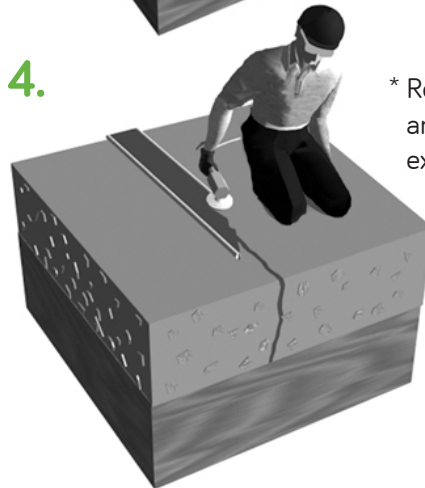
* On individual cracks, a sealant can be used to create a reservoir.

3.



* Continue to gravity-feed the resin and “top off” until crack is completely filled.

4.



* Removal of sealant and grinding of excess resin.

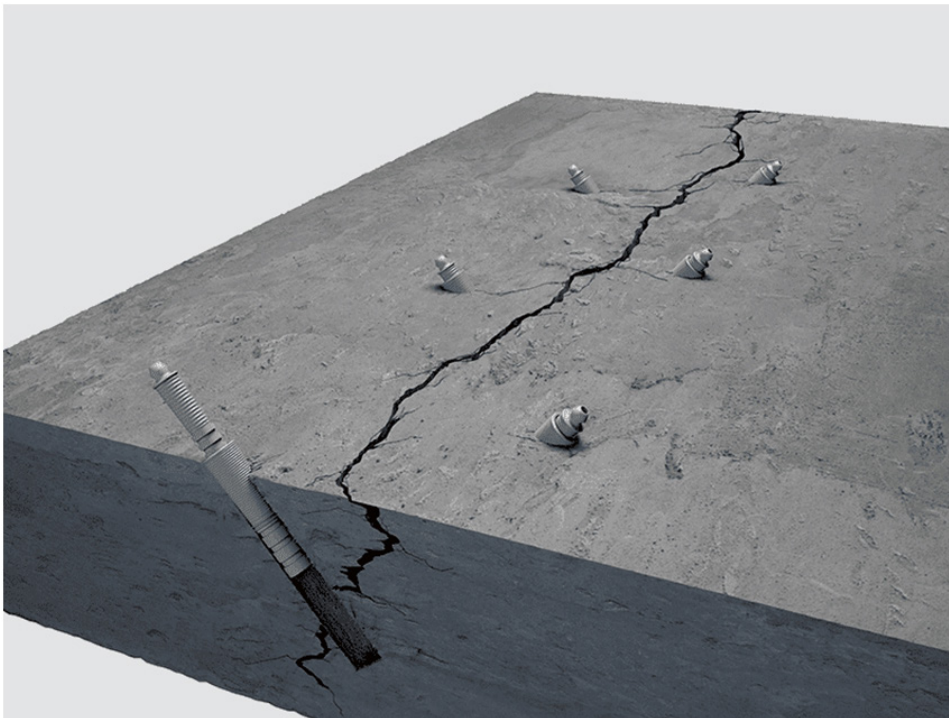
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APPLICATION PROCEDURE

APPLICATION FOR CRACK INJECTION

- Chase out a “V” cut into the surface of the crack at least 10mm deep and 20mm wide.
- With an oil-free compressor, blow V-notched cracks clean of dust or other loose particles.
- Drill injection holes along the length of the crack or around the damaged area, alternately at an angle of 45° to the crack to hit the crack in the middle of the component (depending on the object).
- Packer should follow the crack at intervals of 300 mm.
- Insert packers and secure as per supplier's manual.
- Using a putty knife, seal crack with **mart-Grip Epoxy HS** epoxy cap seal to prevent epoxy to escape during injection.
- Allow for **mart-Grip Epoxy HS** epoxy cap seal to fully cure to avoid blow outs when injecting.
- Fill the injection gun with the correctly mixed **mart-Repair Crack Injection**.
- Starting from the lowest packer point injecting **mart-Repair Crack Injection** slowly until epoxy is coming out from the next packer port.
- After injection, packers are removed and holes sealed with **mart-Grip Epoxy HS** epoxy.
- Once epoxy is fully cured, excess epoxy can be removed by grinding off the surface.



* Injection holes at angle of 45°

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TYPICAL PHYSICAL & CHEMICAL PROPERTIES

Type of Repair Mix	Crack Injection / Chemical anchoring epoxy grout
Mix Ratio	Mix entire contents of Part A resin with Part B activator (do not part mix)
Pot Life	30 – 40minutes at an ambient temperature of 25°C
Cure	90% strength in 24 hours
Compressive Strength	> 60MPa
Chemical Resistance	Resists dilute acids, alkalis and aqueous and aggressive cleaning chemicals
Application Temperature	Between 10°C and 35°C

Estimating of volume of the product is impossible as it depends on pressure and size of the cracks to be repaired.

(Estimate crack volume as follows. Length of crack x Depth of crack x Width of crack divided by 1000 = litres of resin).

PACKAGING

- 1L, 2L and 5L containers

CLEANING AND STORAGE

- Remove excess uncured epoxy from surfaces and tools immediately with **mart-Clean**.
- Store in a cool dry place.
- 12-month Shelf life from date of manufacturing if kept in the original packaging.

HEALTH AND SAFETY

- In all cases, consult the Material Safety Data Sheet before use.
- Contact with eyes and skin must be avoided, safety goggles must be worn at all times.
- In case of contact with eyes, flush eyes immediately with clean water and call a physician.
- Wash hands thoroughly after contact.
- Always wear dust masks when handling, mixing and applying products.

Disclaimer: The information contained in this document is given to the best of Mart Solutions' knowledge and is the result of extensive testing. However, this document will not under any circumstances be considered as a warranty involving Mart Solutions' liability in case of misuse. Tests should be carried out before any use of the product to ensure that the methods and conditions of use of the product are satisfactory. Mart Solutions specialists are at the disposal of the users in order to help them with any problems encountered.