

Multi-Tech Products Procedures

Repair Instructions for Granite and Quarite Non-Mixed Kits

Description

The repair of a damaged surface of Granite or Quarite is different from that of traditional acrylic surfaces, because of the need to provide a granite look. To obtain this look, Multi-Tech Products has developed a three component repair system which is different from the repair kits currently on the market for solid and marble color acrylic sheets and surfaces. The granite appearance of the Quarite is obtained by curing an all acrylic mix in place after the proper amounts of colored particles (Part C), polymer matrix (Part A) and catalyst (Part B) are mixed together. Since it cures in less than an hour, the repair can be completed in the field. In addition, the system provides a repair that is resistant to discoloration resulting from the spa water environment (105° F water, 1-1.5 ppm free chlorine or bromine), and UV and sunlight exposures.

The concept of this repair method is very similar to the one used to make acrylic sheet and it provides a lasting performance of the repaired area. The person performing a repair may need a few trials to gain the experience necessary to achieve satisfactory results in matching the desired look and surface finish. Read and carefully follow the instructions below. In particular, be sure to use the exact amounts indicated in the text.

Components of the Granite/Quarite Repair Kit

- Component A, sufficient for 10 repairs.
- Plastic syringe for Component A.
- Component B, with eye dropper, sufficient for 10 repairs.
- Color matched acrylic particles, Component C, one dose per container, 10 doses are included.
- Ten wooden mixing sticks.

Additional Materials and Equipment Needed

- Safety glasses or goggles.
- Latex gloves.
- Rotary grinder: such as a Dremel Moto-Tool Model 395 equipped with a small cutting bit.
- Automotive Body Filler: such as Akemi APF-7 or equivalent.
- Clear Packing Tape.
- Sandpaper 150 to 600 grit wet and dry.
- Isopropyl alcohol.
- Rotary Buffer.
- Buffing and polishing compounds.
- Acetone, for cleaning syringe (do not use alcohol).

Safety Precautions

Use in a well ventilated area. We recommend you wear safety glasses or goggles and protective gloves.

Preparation

The damaged area must first be prepared to accept the repair material. Chips and/or cracks can easily be prepped using a Dremel Tool equipped with a small cutting bit. There are several bits available which are adequate for this task. Cut away enough of the acrylic to create a void or cavity to accept the repair material. For best results the cavity should have slightly beveled edges. In repairing cracks, it is necessary to drill a small hole at each end of the crack to prevent it from growing longer. In either case, care should be taken to ensure that the depth of the cutting, grinding, and drilling is kept at a minimum so that the underlying fiberglass or ABS substrate is not cut through.

In Some cases where the damage is severe (i.e. damage to the structural substrate) it will be necessary to apply polyester resin and fiberglass to the backside of the unit to give it structural integrity. If the area to be repaired is excessively deep, it will be necessary to partially fill the void or cavity with automotive body filler, leaving a cavity less than 50 mils deep. Allow the polyester based filler to cure sufficiently per manufacturer's directions before proceeding. It may be necessary to grind away some of this body filler to recreate a cavity with a clean beveled edge. Again be sure to grind no deeper than 50 mils. For ease of repair, the unit should be positioned so that the area to be repaired is horizontal or level. If this is not possible, follow the procedure for repairing vertical, inclined, or curved surfaces.

Procedure

Horizontal Surfaces

Be sure you are using Granite/Quarite Part A and Part C marked with the same color number. (Caution! Do not interchange any Granite/Quarite Non-Mixed repair components with any Granite/Quarite Pre-Mixed repair components.) After stirring thoroughly, use the plastic syringe to draw Part A up to the 8.5cc mark, and add it to the selected container of color matched acrylic chips. Mix the two thoroughly for 30 seconds, using the supplied mixing stick. Seal the container and allow it to sit for a minimum of one (1) hour. The syringe can be cleaned with acetone and reused. After the mix has set for one (1) hour, shake well Part B (catalyst) and add 18 drops using the eye dropper of the plastic container of Part B. Mix thoroughly for 30 seconds using the same mixing stick. Then, slowly pour or use the mixing stick to drip the repair mix into the cavity. Fill the cavity so that the repair material is even with the surface of the acrylic sheet and allow the repair material is even with the surface of the acrylic sheet and allow the repair to cure for a minimum of one (1) hour. If filled correctly, the surface of the repair will be flush with the surface of the acrylic and it will not require any further work. However, if the cavity is overfilled, sanding lightly by hand with 150 grit sandpaper will be needed. If sanding is required, it should be kept to a minimum. Finally, the repair can be blended into the surrounding acrylic surface by using a small brush such as a flux brush to stipple on small amounts of Part A catalyzed as above with Part B.

This stippling will give the repaired area depth and texture comparable to the acrylic surface. In most cases no further work will be needed. This however, is dependent on the expertise of the repair person. After one (1) hour cure time, extremely light wet sanding with 100 grit paper may be needed to remove any unwanted over texturing followed by light buffing by hand or with a rotary buffer.

Vertical, Inclined and Curved Surfaces

To repair surfaces which cannot be positioned in a horizontal or level plane, it is necessary to create a pouch or pocket to contain the viscous repair material until it cures. After preparing the damaged area as outlined for horizontal repairs, use clear packing tape to fabricate a small pouch or pocket over cavity to be filled. Keep the pouch or pocket as small as possible to reduce or eliminate sanding after the repair has cured. Prepare the repair mix as outlined in the procedure for horizontal repairs. Slowly pour or use the mixing stick to drip the repair mix into the pocket created with the tape. Allow the repair material to cure for a minimum of one (1) hour. Remove the tape and finish, if necessary, as outlined in the procedure for horizontal repairs.

Remarks and Troubleshooting

- Make sure that the color number and name on the label of Part A and Part C match.
- Prior to use, make sure that Part A is thoroughly stirred and Part B is shaken well.
- Do not try to mix less than the full amount of particles supplied in each container.
- If the area to repair is too deep, the curing process causes the formation of craters. If so, grind off and repeat the repair procedures.
- The average cure time is 40-45 minutes and should not be accelerated. The addition of extra catalyst or repairing deeper than recommended cavities could result in discoloration or "cratering" of repair.
- We recommend performing repairs at a room temperature of 65°-75°F. Should temperatures be higher or lower, we recommend that you mix and store components at 65°-75°F, to minimize potential temperature side effects.
- Do not leave Part A or mixtures containing Part A uncovered, since the vapors are flammable. In addition, the liquid will become more viscous and develop surface skins, which could result in the repair mix being too thick to obtain good results.

For cautions and other information relating to handling of an exposure to this product, please see the applicable material safety data sheet published by Multi-Tech Products.

These instructions are based upon experience with Multi-Tech Products products only. Experience with products of other manufacturers is specifically disclaimed. For most uses, check for local code approval and test for application suitability. These procedures, techniques and suggested materials should only be used by personnel who are properly trained in the safe handling of the chemicals and the equipment with which they are working. Avoid aromatic solvents, clean with mild soap and water, avoid abrasives. These suggestions are based on information believed to be reliable, however, Multi-Tech Products makes no warranty, guarantee, or representation and assumes no obligations or liability as to the absolute correctness or sufficiency of any of the foregoing, or that additional or other measures may not be required under particular conditions or circumstances.



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