

GRANITE REPAIR KIT
(With Urethane Texturing Clear)**DESCRIPTION**

The **GRANITE REPAIR KIT** has been developed and packaged in an "easy to use" paste form ("mma" – methyl methacrylate based) for repairing granite acrylic sheet in applications such as bathware and spas.

Repairs to granite acrylic surfaces are made starting with **MULTI-TECH'S GRANITE PRE-FILL**. This filler was designed to address failure problems seen with polyester body fillers and putties due to the constant harsh environment of spas and steam units. The pre-filled repair is then over filled with the color matched **GRANITE FILLER**. The surface roughness can be duplicated by using the **TEXTURING NON-SKID CLEAR**. This system was designed to complete minor repairs in less than one hour.

While there is no implied warranty, these materials and techniques used were designed to withstand chemicals and hot water, which attack the surface and the repair in the harsh spa's environment. To a large degree, success of the final repair lies with the experience and skill of the individual repair technician.

NOTE: The use of conventional automotive body repair products such as polyester type fillers (Bondo, Evercoat, Akemi, Duraglass and even Ad-tech) lacquer spot putties and primers (although labels may read "acrylic" or "waterproof") absorb water and are not recommended with this system, especially in spa and steam units. Substitution of alternate products can have a severe detrimental effect on the performance and durability of the repair.

KIT COMPONENTS

- GRANITE PRE-FILL - COMPONENT "A" (1) Jar
- GRANITE FILLER - COMPONENT "A" (2) Jars
- TEXTURING NON-SKID CLEAR – 1 Jar and ½ oz Jar of Non-Skid Hardener.
- COMPONENT "B" - Dropper Bottle (Catalyst for Pre-fill and Granite filler)
- GRADUATED MIXING CUPS (30)
- STIR STICKS (15)
- RESIN BRUSH (For applying texture)
- LATEX GLOVES

EQUIPMENT & MATERIALS NEEDED

- ROTARY GRINDER - Sears Craftsman ¼ HP #92744 with Craftsman grinding points #64729 or equivalent. (For multiple and heavy usage a Dremel tool is not recommended)
- HEAT GUN - Industrial quality or a paint stripper (A hair blow dryer is not sufficient)
- 3/8" VARIABLE SPEED DRILL - or smaller for ease of handling (use with 3M Roloc discs as a grinder for shaping the acrylic fill)
- 3M ROLOC DISC PAD ASSEMBLY #5540 - (rubber disc with metal shaft)

- 3M ROLOC SANDING DISCS - 50, 36, 24 grit (50 grit optimum)
- SAND PAPER - 100, 220, 320, 400, 600 grit wet/dry
- HEAVY DUTY POLISHER/BUFFER - 2500 – 3500 rpm is recommended (variable speed is optimum)
- 3M BUFFER PAD #05071 - (purchase the pad first and then match it up to the appropriate buffer)
- BUFFING BAR OR RUBBING COMPOUND - (MEDIUM GRIT)
- ACETONE OR LACQUER THINNER - For clean up
- SAFETY GLASSES - When grinding and using solvents
- VAPOR/PARTICULATE RESPIRATOR - NIOSH/MSHA TC-23C

SAFETY PRECAUTIONS

Acrylic repairs require personal contact with a variety of components, each having its own unique characteristics. When handling these materials, read and follow the safe handling procedures on the labels and the MSDS. During grinding, drilling, sanding, etc., eye and hand protection is required. Do not breathe vapors. Individuals with a history of lung or breathing problems should not use or be exposed to this product. Keep away from heat, sparks and flame. Vapors may cause a flash fire. Close containers after each use. Dispose of properly.

PROCEDURE

- (1) Terminate the crack or damaged area by routing out the area using the rotary grinder, just exposing the fiberglass, in a "V" manor leaving a 30 to 45 degree angle on the edges. Be sure to grind past the end of the crack at least ¼" to be sure the crack will not travel.
- (2) Remove all loose fragments from the edge of the prepared area by sanding with 100 grit wet or dry sandpaper. Try to keep sanding areas to a minimum. Throughout the process minimized sanding will keep the repair small.
- (3) Clean the prepared area with a soft cloth or paper towel with lacquer thinner or acetone on it.
- (4) **GRANITE PRE-FILL, GRANITE FILLER** - With components at room temperature, dispense desired amount of component "A" into plastic graduated mixing cup. Add 30 drops of component "B" per each ½ oz. of "A". Mix thoroughly with wooden stirrer. If smaller amounts are desired (for example: use 15 drops of component "B" per ¼ oz. of component "A"). Mix each resin and filler in stages (for example allowing pre-fill to cure before applying granite-filling stage). Use mixed filler promptly as pot life is approximately 15 minutes. "Maintain proper ingredient ratios for best results."

Procedure - **1st** Fill the damaged area to slightly below level with the prepared pre-fill. To accelerate the cure time use gentle continuous heat with the heat gun around the edge of the acrylic surface and not directly on the fill to start the cure, allow 5 – 10 minutes curing time. **2nd** Once cured grind any excess over fill of white pre-fill, allowing a cavity about 40 to 50 mils deep to avoid any bleed-through around the edges. **3rd** Over fill with the prepared granite filler slightly, this will take two stages to build above level (accelerate with heat if necessary). Allow to cure 20 to 30 minutes. **4th** Once cured grind the granite filled area to shape and or level using the drill with the 3M Roloc set up as a grinder (use low rpm's to keep acrylic from melting). Sand with 100, 200 and 320 grit sandpaper to remove most of the

roughness and grinding marks. 5th Prepare the texturing clear, by adding the texture additive from the cap. Less texturing additive can be used if desired (a test spot is recommended to determine texture). Stir, add 4 to 1 ratio of hardener to the prepared texturing Non-Skid Clear. 6th Apply the prepared texturing resin by dabbing small amounts with the supplied resin brush to recreate the texture look (this may take a little practice on a separate surface to get the desired look). Allow to cure 20 to 30 minutes. Once cured and if final texture is too rough, sand slightly with 600 or 400 grit sandpaper and buff to achieve desired smoothness.

Allow 7 to 10 days to cure for spas, immediately for baths.

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**ADDITIONAL COMPONENT FOR
ARISTECH QUARITE AND QUARITE PLUS REPAIR KIT**

We have incorporated a pre mixed white pre-fill to this already proven repair system. The Aristech instructions will read, "use an automotive body filler as a pre-fill" we have found polyester and automotive body fillers will cause repair delamination. This white acrylic pre-fill was designed to address such failures found especially in the constant harsh environment of spas and hot tubs.

Additional Components:

- White Pre-fill Component "A"- Glass jar.
- Component "B"- Dropper bottle (catalyst)
- Mixing cups

Mixing Instructions:

With components at room temperature, dispense desired amount of component "A" into plastic graduated mixing cup. Add 30 drops of component "B" per each ½ oz. of "A". Mix thoroughly with wooden stirrer. If smaller amounts are desired (for example: use 15 drops of component "B" per ¼ oz. of component "A"). Use mixed pre-fill promptly as pot life is approximately 15 minutes. Maintain proper ingredient ratios for best results.

Procedure:

The cure time of both the white pre-fill and Quarite mixture can be accelerated by applying gentle continuous heat with a heat gun around the edge of the filled area. (Not directly on the fill, this will cause pinholes.) Allow 7-12 minutes to cure.