

Polyester Adhesives— Glue for Stone & Mounting

*Montoya Sculpture &
Supply since 1973*

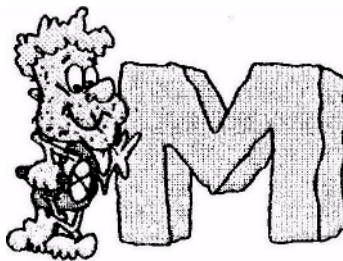
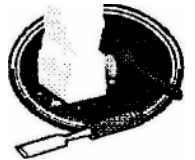
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Sometimes stones break, or you want to join different colors, or you want to mount a stone to a base. This is the stuff to use.

Polyester Adhesives- Application and Methods by Jeff Halverson

Polyester adhesives are used to bond stone to stone, and stone to metal. They are simple to use and provide an inexpensive, permanent, high strength bond. Adhesives can be colored to match the color of the stone you are using. There are eight colors available and they can be used directly or mixed to the proper color as needed. Believe me if you are repairing a break in a stone, that stone will not break along that same line. Its tough stuff.



Montoya carries four basic types of polyester adhesives that are composed of the resin and catalyst. There is a knife grade transparent (not clear, more like a light yellow), and a white. Knife grade has the consistency of room temperature butter. This grade is good for vertical surfaces like a wall or the side of a large sculpture. I use it most to install mounting rods and turning pins.

And there is a flowing grade translucent and white. The flowing grade has the consistency of syrup. The flowing can be used to fill voids or for mounting rods. The flowing can be poured into crevasses and down small cracks.

- Use a stone hardness you are comfortable with.
- Use carbide tools for marble. They last longer.
- See how much faster you can work. Ask for a demonstration of our pneumatic hammer.
- Always wear safety gear. Protect your health and eyes.
- New stone arrives monthly. We maintain a large selection.
- If you need stone larger than 400lbs let us know and we will have it put into our next shipment

Enzo, who teaches our February carving workshop does a demonstration on using adhesives. Working with small scraps around the yard he put together a small sculpture with adhesives of different colors. The last one was only about 9" high and once shaped was a small abstract female torso. The adhesives of different colors separating the small layers of stone created an interesting effect. A great example of the use of these type of adhesives is Isamu Noguchis' Helix of the Endless (182x12x12 inches, Granite 1985) in which different colored granites are glued and pinned together to create an interesting work. These adhesives polish up just like stone.

If it is your first use of these adhesives try a small test sample. Use it in a well-ventilated area. Oh yes, and keep it out of the reach of children and do not swallow it. I think that covers me. I like to wear those cheap plastic gloves

Explore The Possibilities

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when I work with it. Take about a tablespoon full of the resin (I use tongue depressors) and put it onto a piece of paper. Use a decent paper, not newspaper as it will pick up the print and soak into the paper fast. For mixing you can also put it onto glass or ceramic tile if you wish. Knead your catalyst (hardener) while it is in the tube, take the cap off and squeeze out about a 1/4 length right onto the resin. Mix it well and fold it onto itself for about 45 seconds to a minute. Since this is only a test let it sit. As it hardens it will turn from a melted room temperature butter consistency to a rubber consistency in about 2-3 minutes. In 4-5 minutes it will be hard and start to cure. Try not to move your work during this setting time, as it will break the bond. The speed at which it hardens will depend on the amount of catalyst mixed into it. As it turns rubbery you will be able to peel it off the paper. This is an important phase because this is the time during an actual installation or repair that you want to do your clean up of any excess. Do NOT try to wipe up or cut away the excess adhesive until it is rubbery or you will just make a big mess. A swab and acetone will clean up excess adhesive streaking.

Another interesting use of these adhesives is as an inlay for stone. A flat portion of the stone can be carved into and filled with single or multi-color adhesive. There is an example of this technique on our video "The Art of Stone Carving, Demonstrations and Hard Facts" (85 minutes, VMS, sku 78045).

Polyester adhesives are a simple, fast and strong material for repairing breaks in stone, filling voids, and bonding rods and turning pins into finished works as well as bases.

TIP

Store your resin and hardener in a cool dry place. The resin will last many years when the lid is on tight. The small tube of hardener may not keep as well. When you knead it, if it is starting to stiffen up, and is hard to squeeze out, you may need a new tube soon.

ANOTHER TIP

If you are drilling a hole into a base or sculpture, size the hole with a little clearance so the rod or turning pin or not real tight. If it is too tight of a fit there will be no room for adhesive to seep out as you push the pin in. Sometimes it is better to use a flowing adhesive so it fills all the space available. If you ever find things are not working out as planned as the adhesive is hardening it may be best to abandon the attempt and clean up as much of the adhesive before it hardens. Scrape it off and clean wipe with acetone. Then try again. Remember the more hardener the faster it will set once mixed with the resin.

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Stories, interviews, interesting information and special sales.**

See our other informative Technical Bulletins on-line or give us a call.

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