

ADHESIVE GUIDE

from
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PVA Adhesives (Glues)

Polyvinyl acetate (PVA) glues are widely available and make up a large share of the adhesive market. They are made of a rubbery synthetic polymer and there are a variety of brands that differ slightly and may claim to be for very specific uses, but there is little difference among them and they are virtually interchangeable. You can use wood glue on paper and you can use white glue on wood. Find your favorite brand and use it with abandon. All PVA's are archival.

PVA's are designed for porous material (paper, wood, fabric, etc.) but the thicker formulas also work well on non-porous surfaces. I have chosen a thick PVA, "The Ultimate", as my working brand and thin it with water as needed. This glue gives me the widest possible range of uses, eliminating the need for too many bottles. (One drawback - it is quite thick and can be difficult to squeeze out of the bottle. Store it upside down and be prepared to cut the bottle open to scrape out the last bits.) If you are looking for an easier consistency try Sobo or Lineco. Any PVA can be thinned with water, but you will lose some adhesive strength. Also, the more water you put into PVA (or any adhesive) the more it will cause "wrinkling" if using it on paper projects. PVA will create the best bond if allowed to dry under pressure so you may want to clamp objects or put projects under some sort of heavy weight.....I keep a stack of paper-wrapped bricks on hand for just this use.

One of the biggest advantages of PVA glue is that in spite of its "chem/tech/science-y" sounding name it does not emit any harmful fumes or cause any skin reactions when touched. It also cleans up well with water if you get to it while it's still wet - once dry all bets are off. Some PVA brand names are The Ultimate, Sobo, Lineco, & Tacky.

Glue Sticks

Glue sticks are made of a solid adhesive that is very convenient when gluing paper to paper. They were developed in 1969 by a German company, Henkel, and released as the "Pritt Stick". Though not as strong as more "liquid" adhesives, these little tubes more than make up for that with their ease of use and lack of mess. The fact that this product is non-toxic makes it a great choice for use with children (over 3). Glue sticks now come in a variety of sizes, with permanent or temporary bond adhesive, and dyes (if you wish) so that you can see just where you have placed it. I keep a large number stashed around my studio and home and one in my purse. (Warning: when rummaging through your purse for lip balm, make sure that is what you grab before putting it on your poor, dry lips. I speak from experience.)

Glue Pens

There are a wide variety of glue "pens" available and I could not possibly break them all down for you here so I have chosen a favorite, Zig, because I feel that it fills a particular niche. This pen comes in two widths and applies a very delicate line of adhesive that is invaluable when working with small bits of paper. The bond is permanent, though not particularly strong. The glue, when first applied, is blue which I originally thought was kind of "gimmicky" but have now found to be most helpful. This adhesive is archival (acid free). Try other pens as well to find the right one for you.

Rubber/Paper Cement

Rubber cement is made from latex polymers that have been mixed in a solvent to keep them fluid. These solvents are typically hexane, acetone, benzene, heptanes, and alcohol. The formulas for rubber cements differ widely but for our purposes the product is sold as Paper Cement and does not include benzene which has been linked to some health issues.

This product can be used in art applications when you may need to remove the adhesive at some point as it can be easily rubbed away. For this reason it can also be used as a masking agent. It will not shrink or swell paper fibers - the cause of "wrinkling". Though Paper Cement claims to be acid-free it is NOT archival as it may cause discoloration or deterioration of photos and many papers. You must also use this in a well-ventilated area and away from heat sources.

Nori Paste & YES Paste

Though these are not identical products, they are very similar in their use and applications. Both YES and Nori are starch based adhesives and are widely used by book and paper artists because they will adhere a wide variety of materials including delicate papers which can be tricky with most other adhesive types. Both are slow to dry, dry clear, clean up with water, are non-toxic, are odor free, and are archival. These pastes can be mixed with PVA for a stronger bond.

YES is a very thick medium which, in the original consistency, must be applied with your fingers or a rigid tool such as a scraper or a wide Colour Shaper (one of my favorite new tools). I like this product because it can be thinned with water making it a very effective and economical choice. To thin, place one part water to 3 or 4 parts paste in a container with a tight fitting lid. Vigorously shake container periodically for a couple of days to mix. Paste can be stored this way for years, though you may need to thin it again from time to time. Nori comes already thinned in jars or a very convenient applicator bottle. If you aren't going to need a large quantity I would definitely go this route.

Wheat Paste

Wheat Paste is most commonly available in a powder form that is mixed with water to the consistency of Cream of Wheat cereal. There are recipes for creating your own, but I like the convenience of commercial mixes that do not require cooking. This paste is most commonly used for papier mache, though it does have some other paper/book applications (such as gluing in endpapers).

Double Stick Tapes

There are a number of double stick tapes and applicators available, all producing the same results. I find that it is best to choose the applicator you prefer rather than the tape. My tape applicator of preference is the ATG tape gun. A hefty investment but the tapes, made by 3M, are of top quality and available in multi-purpose or framing. Tapes are also available in 60 yd. rolls which will last a very long time for most people. A less expensive choice would be the Kokuyo dispenser which also offers a good adhesive in a small, easy to use applicator. A step down the \$\$ ladder is the Tombo Mono Adhesive applicator and tape. You can go the no-dispenser route and buy double stick tape in rolls, dots, or sheets - all great choices.

Whichever method you choose for putting tape to paper, this is a great adhesive to have on hand. Tapes have no moisture to cause paper to wrinkle, require no drying time, are generally archival (check the packaging), and are very convenient. They are used pretty much exclusively for paper applications.

Spray Glues

Though there are many spray glues (also know as Photo Mount) available there is one that stands head and shoulders above the rest. Super 77, made by 3M, is the only spray glue in my studio. It sprays on evenly (though you may have to clean the nozzle from time to time), does not dry too quickly (allowing you to re-position a piece), and seems to be fairly stable (doesn't dry out in the can too fast).

Spray glue is a good choice for delicate, fine, or unsized papers but should really be used as the adhesive of last resort. It is quite irritating to the lungs and should only be used outside - and wear a mask! In other words, if you do a lot of "paper" work it is a good adhesive to have on hand, but use it with a great deal of caution.

Hot Glue

Hot glue is typically available in stick form requiring a special glue gun that heats and applies the molten adhesive to a surface. Truly "hot" glue guns produce a glue hot enough to blister skin, but there are low-temp options. Typically the hotter the glue, the slower the drying time. Glue sticks are made of a vinyl acetate with resin or wax added to make it solid.

This adhesive is great for craft projects where a very long, strong bond is not required. It is applied in a rather thick "glob" that cannot be thinned making it unsuitable for delicate projects but a good choice when a gap filler is needed.

Epoxy

Epoxy is basically a polymer or resin that is combined with a catalyzing agent or "hardener" to form an incredibly strong, structural adhesive bond between non-porous materials. Though it is used primarily in industry there are two-part systems available to the public, usually in plastic tubes in either slow or fast setting formulas.

This is a very strong adhesive that should be used with a little bit of care and caution as the hardener has been known to cause allergic reaction or rash. Be sure to use this only in a well ventilated area. Clean-up can be tricky and while some formulas can be cleaned up with white vinegar, others may require acetone. Nothing will clean up epoxy once it has cured. Mix only what you will be able to use in a few minutes, even if you are using the slow drying formula.

Super Glues

Adhesives sold as "Super Glues" are cyanoacrylates that were developed by Eastman Kodak and first marketed to the public in the mid 1950's. These are typically used to bond non-porous materials and will even work on damp surfaces. (They are even good at bonding body tissue, which many of us have found out by "unhappy" accident.) Use these glues only when a quick bond is needed and preferably on items that are not going to get a lot of hard use. Never use this on paper or fabric as it may cause an exothermic reaction leading to smoking or burning. Superglues should be used only in well-ventilated areas.

This information sheet was compiled by Debra Glanz who has been a studio artist for over 30 years working primarily in the Book & Paper Arts. Any biases or recommendations come from her personal use of and familiarity with adhesives and not from any product or company affiliations. Please use this information to help you make choices for your own experimentation with the vast array of adhesives that are available.