

WATER AND FLOUR PAPER MACHE GLUE

½ cup flour
½ to 1 cup water

**Whisk flour and water mixture until
you reach your desired consistency.**

Here are some properties we take into consideration in the laboratory when we make our industrial adhesives, and you may want to as well when creating your glue!

Viscosity is a measurement we use to determine the thickness of a liquid. For example, gravy has a much higher viscosity than water.

How is the viscosity of your glue? Is it too thin? Try adding more flour. Is it too thick? Try to add more water.

Similarly, in polyurethane, we modify the amount and type of ingredients we use to make sure the viscosity is just right for our customer's application process.

Pot Life is a term we use to determine how much time our customers have to apply their adhesive before it starts to cure (dry). They do not want the adhesive to dry before they are done applying it, but they also do not want the adhesive to take too long to dry.

Is your glue drying out too fast? Try mixing in more water. Is your glue taking too long to dry? Try adding more flour or using a blow dryer.

In polyurethane, we use ingredients called **catalysts** to help make our adhesives cure faster. Heat can also be used to decrease pot life.

The **pigment**, or color of our adhesive, can be important. For example, a customer may not want to use a white adhesive on a black surface.

Try adding in food coloring if you want your glue to match the surface you are gluing to.

Adhesion strength is a measure of how strong the adhesive is at holding two parts together.

Is your glue not sticky enough? Try having your parent/guardian boil your mixture of flour and water (you may need to add more water to adjust your viscosity)!

For polyurethane adhesives, we change the amount and type of ingredients to make sure the adhesive bond is strong enough for its intended use.