

Adhesives

When choosing an adhesive, you are looking for good adhesion properties and good ageing properties. Most white glues and pressure sensitive tapes do not have good ageing properties.

The conservation profession is interested in reversibility. Conservation quality adhesives include purified starch pastes and adhesives made from chemically modified cellulose such as methyl cellulose. Both purified starches and modified cellulose are used as thickening agents in food products. These have proven abilities because they have been in use for many years.

- Self stick tape (pressure sensitive tape) is made with a solvent to keep the adhesive “tacky.” This evaporates over time, and eventually the adhesive dries up and the carrier falls off, especially rubber-based adhesives (e.g., masking tape and “scotch tape”). The adhesive can ooze and with time stick to the adjoining page.
- Double-stick tape is sometimes used in a Mylar encapsulation. It can ooze and the encapsulated paper will stick to it.
- Over time mono-polymers in PVA can crosslink, and the dried PVA loses its flexibility. Conservation PVA is a co-polymer glue which stays flexible longer.
- Household white and yellow glues and rubber cement should not be used on valuable or heirloom documents or photographs. These glues are not easily reversible. Dried PVA is not reversible in water.

Adhesive Recipes

Starch

1 part wheat starch to 3 parts water. Cook on stove top in double boiler.

1 part wheat starch to 4 parts water. Cook in microwave; stir every 30 seconds for a total of 2-5 mins, until it forms a translucent gel.

Cool and store it in the refrigerator or in water.

This adhesive lasts for up to a week in the refrigerator. Strain and dilute to use.

Methyl Cellulose

1 part methyl cellulose to 8 parts water (this can be 6 parts water if you want it thicker).

Mix and leave overnight to gel.

This adhesive lasts for up to six months at room temperature.

PVA/Methyl Cellulose Mix

Mix 60% PVA with 40% methyl cellulose (prepared as above).

PVA has a manufacturer’s shelf life of one year. The mix should last six months.

All these adhesives can be diluted with water to the required consistency depending on their application.