

Matting and Framing Works of Art and Artifacts on Paper

Works of art and documents on paper are vulnerable to physical damage. They are easily torn, folded, and smudged. Works of art and documents on paper are also susceptible to chemical damage by components in paperboard and adhesives used to mat works of art and documents. The purpose of this brochure is to provide information about recommended materials for matting and framing and to indicate those materials to avoid. Choosing appropriate mat board, hinges, glazing, and backboard will help to protect and preserve the works in your collection. The use of chemically unstable products can result in damage to the art or documents that they are intended to protect.

Mat Boards

Many of the mat boards available for framing purposes are of poor quality. The acidic content of these inferior boards can cause paper to become brittle and darken. In poor quality mat boards, the core of the board darkens as it ages. When this exposed core of the board comes into direct contact with the matted work at the window opening or at the edges, an orange-brown line of staining, known as “mat burn” occurs. To prevent this problem, use chemically stable materials for both the window mat and the back mat. Ask for mat boards that are alkaline, and made fully from cotton rag or 100% chemically purified wood pulp. Chemically stable boards generally have an alkaline reserve (often referred to as a “buffer”), incorporated to neutralise acidity from atmospheric pollutants and from the artifact itself. Some photographic and printing processes are “alkaline sensitive” and may be adversely affected by buffered

materials. In these cases, pH neutral “unbuffered” materials may be more appropriate. Look for materials that explicitly meet the International Organization for Standardization specifications for enclosures.

Hinges

Japanese paper hinges are used to attach a work on paper to its back mat. These hinges are attached to the reverse of the work with a cooked, highly-purified wheat starch paste. They secure the top edge of the work to the mat, while still allowing the paper to expand and contract freely in response to changes in its environment. Directly adhering the corners of the work to the back mat without hinges can cause staining, buckling, or tears in the paper support. Another method of hinging uses “photo-corners”, triangular sleeves of paper or inert plastic film—placed over the object’s corners and adhered to the backmat. No adhesive is applied to the artifact when using “photo-corners”, facilitating its removal from the backmat, if necessary. Avoid methods of attaching works of art to backmats such as dry-mounting, lamination, spray mount, rubber cement, or pressure sensitive tapes (e.g., masking, office, or even those referred to as “archival” or “preservation” tapes). The adhesives in these materials can seep into paper, become discolored, brittle, and be difficult to remove.

Backing Boards

The backing board is a rigid sheet of chemically stable board placed behind the backmat in the frame. It is stiff enough to hold the contents of the frame in place without bowing when

displayed. These boards should be made from chemically stable papers or plastics and occur in such formats as corrugated, honeycombed, and foam boards. To minimize the effects of pollutants and changes in relative humidity, some conservators recommend the placement of a layer of impermeable material, such as polyester film (e.g., Mylar), between the backmat and the backing board, or outside the backing board.

Glazing Materials

Glazing protects the surface of the work of art and prevents the infiltration of dirt and dust. The two most common glazing materials are glass and acrylic sheet. Plastics other than acrylic may be unstable and are to be avoided. An acrylic sheet weighs less than glass and is shatterproof. Although acrylic tends to scratch, scratch resistant grades are available. Because acrylic has a static charge, use glass when glazing powdery materials such as pastel, chalk, and charcoal. Whether you choose glass or acrylic, always be sure that the glazing material does not come into direct contact with the surface of the artifact. Prolonged contact of the glazing with the surface of the artifact can result in its adhesion to the glazing, or can cause surface changes in the work. A thick mat or a spacer in the frame will keep the artifact from touching the glazing. Glazing that filters ultraviolet radiation can help reduce the fading of colors or darkening of paper. Both glass and acrylic sheet that filter out ultraviolet radiation are available. Works glazed with ultraviolet filtering materials can still be damaged by high light levels and long periods of exposure. Limit the quantity of light and the duration of exposure to light to minimize damage to documents and works of art on paper.

Summary

- Have items matted with chemically stable window and back mats. (At least 4-ply in thickness; alkaline; pH 7.5 to 10; 100 percent cotton rag or chemically purified woodpulp)
- Ensure that mats are always larger than the item being matted.
- Have the window and back mat attached along the top or left edge (which ever is longer) with gummed linen tape. (The gummed linen tape touches ONLY the mat board, not the object.)
- Have the work hinged to the back mat with Japanese paper and wheat starch paste, apre-gummed Japanese paper tape, or with photo-corners as a primary means of attachment.
- Select an appropriate glazing material to be placed in the frame in front of the matted work. Include additional spacers as needed to separate matted work from contact with the glazing material.
- Have chemically stable backing board placed into the frame behind the matted work.
- Have a dust seal placed on the very back of the frame. Dust seals may be made from chemically stable paper or polyester film.

Ensure your framer is aware of these factors, before entrusting you valuable artwork to him to be framed. Have him contact a local conservator if there is a question as to method and material.

The AICCM website can give you the names of qualified local conservators.