PHOTOGRAPHIC MEDIA STORAGE ENCLOSURES

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The selection of an appropriate storage enclosure for photographic media can initially appear bewildering. However, selection of the best storage enclosure does not have to be difficult if the following information is taken into account.

All storage enclosures that come in contact with photographic media should conform to the specifications outlined in:

ISO 18902-2001 Imaging Materials – Processed photographic films, plates, and papers – Filing enclosures and storage containers. (This standard outlines appropriate paper and plastic enclosure materials; adhesives, printing inks, etc.

ISO 14523 – 1999 Photography – Processed photographic materials – Photographic activity test for enclosure materials. (This standard outlines the testing procedure used to determine whether a material (paper, adhesive, ink, plastic etc. will interact negatively with a photographic image).

All paper enclosures should:

- Pass the **Photographic Activity Test** - most conservation supply catalogues indicate whether a product has passed the P.A.T;

- Be lignin-free; free of peroxides; be chemically stable and not cause abrasion of the photograph;

- If **black and white** photographic images: be stored in paper enclosures which have a pH between 7.0 and 9.5 with at least a 2 % calcium carbonate reserve (buffer);

- If **colour** photographic images: be stored in paper enclosures that meet the same standards as for black and white images but the pH range should be between 7.0 and 8.0.

Over the last number of years there has been ongoing research into whether it is more appropriate to use buffered (above pH 7.0) or non-buffered (pH 6.0 – 7.0) paper enclosures for photographic media. It now appears that the concerns about using buffered/alkaline enclosures in direct contact with photographic media were unfounded.

Paper envelopes with side adhesive seams are recommended over envelopes with a central T seam as the side seam tends to interact less with the photograph. When inserting a photograph into any paper enclosure with an adhesive seam always ensure that the emulsion side is away from the adhesive seam. In a photographic print the emulsion is the image side and in a photographic negative the emulsion is the dull, matte side.

Some enclosures such as MicroChamber paper, in addition to alkaline buffering incorporate molecular traps in their paper structure. Molecular traps, made from either zeolites or activated carbon, are designed to adsorb specific types of gaseous pollutants. It is thought that the molecular trap will trap or adsorb pollutants from the ambient environment or pollutants being off-gassed by the archival record. These types of enclosures could be useful for archives with poor environmental control and/or high indoor pollutant levels or for holdings with a combination of black and white prints, cellulose nitrate or cellulose acetate negatives and colour media all housed together.

- All plastic enclosures should pass the Photographic Activity Test;

- Safe plastics do not have plasticizers, are usually inert and are chemically stable. Safe plastics include: polyester (also known as Mylar Type D, Melinex Type 516 or polyethylene terepthalate); polypropylene, polytheylene, and polystyrene. Use only plastic enclosures that have clearly identified plastics.

It should be noted that Dupont ceased production of Mylar Type D last autumn. An plastic equivalent to Mylar Type D is Melinex Type 516 and is also made by Dupont.

References:

ANSI/NISO Z39.77-2001 Guidelines for Information About Preservation Products. Bethesda, Maryland, NISO Press. (PDF download file at **www.niso.org/standards/index.html**)

This publication has an excellent glossary of preservation terms. Also very useful is Appendix A: Referenced Standards and Tests as it lists relevant standards that relate to preservation products.

ISO 14523 – 1999 Photography – Processed photographic materials – Photographic activity test for enclosure materials

ISO 18902 – 2001 Imaging Materials – Processed photographic films, plates, and papers – filing enclosures and storage containers.

ISO standards can be ordered online at **www.iso.ch**