

ARCHIVAL GLOSSARY

Acid

A substance known to form hydrogen ions when dissolved in water. Active acids are naturally present in the cellulose fibres of wood and cotton used to make board, paper and cloth. Acid acts over time to weaken the cellulose and causes embrittlement. Storing items incorrectly will also allow for migration of acids from an adjoining item or from poor packaging materials.

Acid Free

The removal of active acids from wood and cotton pulp during the manufacturing process allows for the production of acid-free materials (with a chemical pH of 7.0 or higher). However, over time further acid may be produced if bleaching chemicals such as chlorine have been used or simply from the absorption of pollutants in the atmosphere. Buffering the material with alkaline can help to reduce the risk of increasing acid.

Acrylic

Stable plastics noted for their transparency, light weight, weather resistance, rigidity and colour fastness. They are useful in material preservation because of their stability i.e. their resistance to chemical change over time.

Alkaline

Substance with a pH of over 7.0 which can be added to materials to neutralize acids or as a reserve (or buffer) for the purpose of counteracting acids that may be made in the future. Most common used are magnesium carbonate and calcium carbonate.

Alpha Cellulose

A form of cellulose derived from cotton. The presence of alpha cellulose in a paper or board is an indication of stability or longevity.

Buffered

See Alkaline . Buffering is used widely in photographic storage.

Calcium Carbonate

An alkaline chemical used as a buffer in papers and boards.

Cellulose

The chief constituent of the cell walls of all plants.

Inert (Chemical Stability)

Products used in preservation should ideally not decompose easily or otherwise be modified chemically, thereby having the ability to resist chemical degradation (such as paper embrittlement).

Lignin

A natural component of cell walls of plants providing strength and rigidity. Its presence in paper and board, however, is believed to contribute to chemical degradation. It is largely removed during manufacturing process. No standards exist for the term "lignin-free".

Mylar™ & Melinex™

See Polyester.

Neutral

Having a pH of 7; neither acid or alkaline.

Olefin

See Tyvek™.

pH

Chemical measure of the concentration of hydrogen ions in a solution.

Polyester

Common name for the plastic polyethylene terephthalate. Polyester has for many years now been regarded as the safest choice for the long term protection of records, documents and certificates from the risks of handling and moisture and sulphides in the air. An archival quality plastic material, polyester is chemically stable and has a neutral pH. Its

characteristics include glass clear transparency, colourlessness and high tensile strength. Common trade names are Mylar™ and Melinex™.

Polyvinyl Chloride / Plastic Materials (PVC)

PVC files and folders can actually contribute to the rapid fading, embrittlement or deterioration of images and paper through chemical degradation (acid attack) from the inherent plasticisers. PVC is not chemically stable and should not be used for long term storage and protection of collection materials.

Polyethylene

A chemically stable, highly flexible, transparent or translucent plastic. Used to make preservation sleeves for photographic and document materials.

Polypropylene

A stiff, heat resistant, chemically stable plastic. Commonly used for protective sleeves for slides and disks.

Tyvek™

A patented and unique fibre-spunbonded olefin (a bonding of tough, durable, high density polyethylene fibres) made of continuous fibres so strong you cannot tear it. It resists water, chemicals, rot, mildew and won't discolour.

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