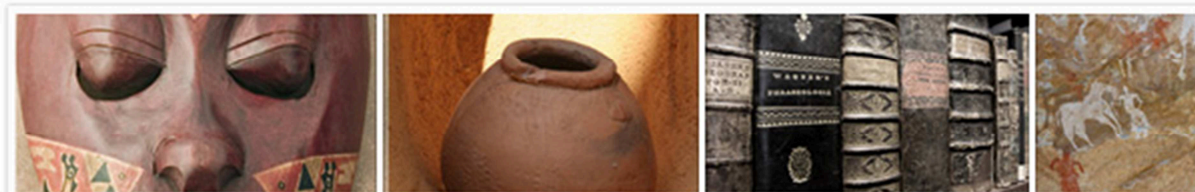




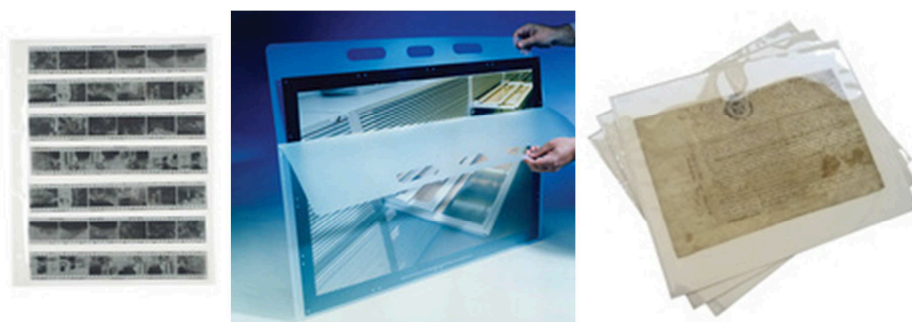
The pursuit of an ETERNAL HERITAGE



## Product Spotlight: Plastics In Museums

*Twice a month ETHER Conservation will highlight one product from our conservation and preservation range in this section, as it is hard to determine what products work best for you without knowing a little about them. Product Spotlight will also highlight new products being developed for conservation.*

The use of plastics have filtered its way into our everyday use at home and work, and the museum is no exception. Plastic items now part of our collections/archives, as well as provide alternate means of storage materials. Transparency plastics are commonly used for the protection of archival documents and photographs. However many of the first plastics entered into collections or used in heritage institutions were later found to be harmful to the objects they enclosed.



### **Useful Terms:**

**Polyvinyl chloride:** is the third-most widely produced polymer and is flexible, light, cost-effective, transparent, tough and safe. PVC requires less fuel to manufacture and transport when compared with other packaging materials such as metal or glass.

**Polypropylene:** is a thermoplastic polymer used in a wide variety of applications including packaging, labelling, textile, reusable container, etc...

**Plasticiser:** are used to modify PVCs. It is used to increase its flexibility and workability.

### **Reasons to be careful when using plastic storage materials!**

The most common plastic used was PVC (polyvinyl chloride). It has good transparency and can be welded with ease. The problem was that it contained a large amount of plasticiser to keep it flexible. In time this plasticiser comes to the surface and transfers a sticky acidic residue to the enclosed object. Plasticisers are not the only danger from poor quality plastics. Polypropylene is often recycled and can have fatty acid slip coatings to make it run smoother on production machinery.

Only virgin Polypropylene without this slip coating should be used for photographs or archival material. Virgin Polyethylene, without plasticisers or harmful additives that might off-gas, is suitable for archival storage but it lacks rigidity and clarity.

### **How to determine if plastics in your collections are unstable.**

- Acidic Odour - often before physical indications can be seen on an object there is an acidic odour being emitted e.g. vinegar, camphor or chemical.
- Brittleness - becomes dry and easily flakes or breaks when touched
- Corrosion - a gradual destruction on the item
- Cracking - lines/gaps appear in objects as they break down
- Delamination - layered plastics peel apart
- Discoloration - colour loss or yellowing
- Warping - becomes, bent, twisted or swollen
- Weeping - a sticky or liquid is deposited on the surface of the item

### **Ways to prolong the life of items that have begun deteriorating.**

Once deterioration has begun it cannot be stopped or reversed but it can be slowed down.

- Remove items from old packaging
- Use plastics that are inactive (does not contain plasticizers)
- Remove excess moisture in containers
- Isolate unstable items in separate containers
- Maintain a low temperature and relative humidity level

- Do not expose the unstable items to direct sunlight. Keep light levels low.

## Products available in our Catalogue

### Polyester

Polyester is known as the most stable and chemically inert plastic used for conservation storage. It offers optical clarity, strength, rigidity and a surface free of slip coatings.

When applied as a thin film to Polyester it gains strength and rigidity but the crystal like transparency is reduced. The recent inclusion of reactive copper and carbon particles in plastics now offers new possibilities for the long term protection of archival material.

Melinex® and Mylar® are the most commonly known brands of Polyester. The clarity, purity and resistance to degradation is prized by conservators, however it is much harder to weld and form into pockets and complex album pages than softer plastics such as Polyethylene and Polypropylene which have a lower melting temperature.



### Visifiles

Heavy weight matt polypropylene is an excellent material for making large drawer files. The matt surface is non reflective and has reduced surface contact with the contents. It can be welded or sewn as with our Visifile™ folders. In use it makes an almost indestructible folder that allows the contents to be seen at a glance.

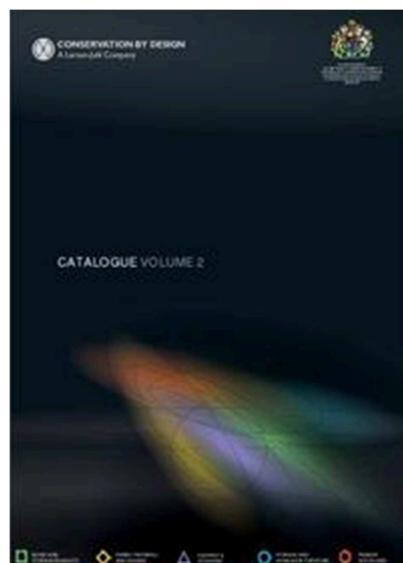
For the previous [Product Spotlight](#)'s or would simply like to read them again follow the link. Please feel free to leave your comments or inform us on what products you

would most like to hear about in the next mailing.

### **UPDATE: CXD Catalogue**

During 2013 ETHER was established as an agency in South Africa for Conservation By Design (CXD) who are located in the UK. CXD over the past year has taken over a few other companies and has added those products to the CXD catalogue. It has taken a year to compile the new catalogue with added products but it is finally here.

We are localising the catalogue at this time for South African usage, and are also preparing the local price lists, and it is our intention to provide these high-quality products at a price as close to the pound equivalent as possible and will not be unreasonably inflating the prices.



If you would like to have a look at the new catalogue click the link below and it will take you to the [ETHER Conservation](#) page which has the links to the Catalogue and Preliminary prices for the items.

For more information on the products above or to order conservation materials please contact Sholeen at [sholeen.sanker@ether.co.za](mailto:sholeen.sanker@ether.co.za) or have a look at our [website](#). Catalogues can be downloaded from our website.

\* The ETHER Initiative is a programme of Roger Layton Associates (Pty) Ltd

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