



WEBINAR

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Innovative packaging solutions for storage and conservation of 20th century cultural heritage of artefacts based on cellulose derivative



HIGH O₂
BARRIER AND
ACTIVE
PACKAGING



ACTIVE ACID
ADSORBERS



MULTI-SCALE
MODELLING



GAS
DETECTION
SENSORS



PACKAGING
WITH MODULAR
DESIGN



CURATIVE
PACKAGES



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Why or how boxes can change the way people are storing contents?

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Proper storage of collections

The proper storage of collections is a very broad issue, covering a number of issues, ranging from the climatic conditions in a given country, or even more broadly - for a given continent, through the conditions related to the structure of the archive building and the conditions in the collection rooms, and ending at the frequency and manner of sharing resources.

Archivists and librarians have known for a long time that documents intended for long-term storage should not be stored loose, but in packages - folders, book jackets and boxes. It is also known that not all packaging can be used for this purpose - they must be boxes and folders made of materials safe for their contents, not reacting with the stored paper, such that will not accelerate its decomposition, but separate it from adverse effects environment and this decay will slow down. Most people dealing with the issue of collection protection on a daily basis are aware that archival packaging should be acid-free.



Proper storage of collections

Acidic compounds, which adversely affect cellulose chains, have a dangerous property: they can "wander" from one object to another, or from a package to its contents. In this way, destructive acids are also absorbed by the paper from polluted air - acid-forming oxides of sulfur and nitrogen are particularly dangerous compounds here. The effects of this process can be seen by looking at old books - their pages are usually browner and brittle at the edges (which are more in contact with air) than inside.

For years, experts dealing with the issue of decaying paper and the protection of collections have been trying to develop a set of requirements that should be met by durable paper and packaging for long-term storage of collections on a paper base. These requirements, agreed internationally, are reflected in two ISO standards: ISO 9706 and ISO 16245.



Proper storage of collections

Archival boxes are perfect for securing files against dust and mechanical damage. The best are boxes made of acid-free solid cardboard, which, while maintaining the appropriate climatic parameters in warehouses, should last for many years without any damage. The size of the boxes should be adjusted to the dimensions of the units (objects) in such a way that they are neither overly compressed inside nor too much slack.

Archival boxes facilitate the use of files and other packed objects in a convenient and safe way - we are talking about putting them in and taking them out of shelves, and they significantly facilitate cleaning and dusting of files, making them safe and quick. The boxes also act as a mechanical barrier to organisms in a way.



Proper storage of collections

Today, no one has any doubts that the way of storing the collections is of enormous and often even decisive importance for their "lifetime". Of course, the method of storing the collection consists of many factors, the importance of which has not been mentioned here at all - the structure of the building and the archive equipment, the level of humidity and temperature in the rooms, protection against microbiological attacks or catastrophes, the frequency of sharing the archives and many others. Proper packaging is only one of the elements, but it is a very important element: **it protects files and books from contamination, prevent mechanical damage, slow down the negative impact of physicochemical factors, and to some extent limit the effects of fire and flooding.** However, this positive role of packaging will be guaranteed only if it is made of the right materials, with an optimal structure, containing no elements or ingredients that could harm the stored documents and books.



Advantages & disadvantages

Advantages:

- ▶ different constructions;
- ▶ different shapes;
- ▶ different dimensions;
- ▶ can be use for different objects;
- ▶ can be transported assembled or unassembled (which affects the price of transport).

Disadvantages:

- ▶ can be damaged in the event of inadequate treatment;
- ▶ they are not 100% resistant to flooding and fire;
- ▶ must be properly assembled;



Examples

► Microfilms





Examples

► Bulbs





Examples

► Coins





Examples

► Other objects





Thanks for your attention

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