

NATIONAL ARCHIVES AND RECORDS ADMINISTRATION PRESERVATION PROGRAMS

The information provided below is intended for emergency recovery and response, not general treatment recommendations.

BOUND VOLUMES WITH COATED (GLOSSY) PAPER

Priority Action:

- Immediately **freeze or air dry** wet volumes (ideally **within 6 to 8** hours)
 - Freezing (at -10° F or lower), followed by vacuum freeze-drying, is the most successful salvage method for coated papers
- Coated papers will stick together (**irreversibly**) unless frozen or dried **immediately**
 - Coated papers are the most vulnerable to complete loss and should not be permitted to begin drying until each volume can be addressed
- It may be necessary to re-wet books with coated paper with clean cold water until they can be frozen

Recommendations:

- Do **not** allow coated paper to dry before freezing or drying
- To pack for freezing -
 - Do not open or close books, do not separate covers
 - Do not try to close or flatten water swollen volumes
 - If possible interleave volumes with freezer or wax paper to prevent sticking
 - Pack spine down in plastic crates or cardboard boxes 1 layer deep to prevent crushing
 - Line containers with garbage bags or plastic sheeting
 - Pack oversized volumes flat in containers 2-3 books deep
 - Do not stack large books on top of smaller ones
 - After boxes are packed, place on pallets if available
 - Do not stack boxes on pallets more than three high
 - Ship to a freezer facility as soon as possible
 - Mold will begin to grow after 48 hours if materials are not kept cold
- If air drying (small quantities of damp volumes) –
 - Stand each book on its drier end
 - Fan the pages open
 - Interleave **each and every page** with clean wax paper, Hollytex, or silicone release paper
 - Use fans to circulate air and to accelerate drying and retard mold growth
 - Do not aim fans directly at the materials
 - Use dehumidifiers as needed to maintain humidity at or below 50% RH
- If material cannot be frozen or interleaved immediately, keep wet, wrap in plastic bags, and store in a cold environment
- Do **not** vacuum thermal dry coated paper – causes blocking of coated paper

Recommended Supplies:

- Wax paper or Hollytex or silicone release paper
- Paper towels
- Blotter paper
- Clean water
- Plastic garbage bags or sheets
- Plastic crates or cardboard boxes
- Fans
- Dehumidifiers

Related media:

[Volumes with Cloth or Paper Covers](#)

[Volumes with Leather Bindings](#)

The information and links provided by NARA are offered as a service and do not imply endorsement of any company, institution, or person. The scale of the emergency and types of materials affected will determine the specific actions or techniques to be taken and whether in house salvage is possible or whether external resources and expertise are necessary.