

Drying Techniques for Water Damaged Books and Records

Technique	Procedure	Speed	Direct Cost	Staff & Labor	Availability	Results
Air Drying	Items dried by circulating air in a low-temperature, low-humidity space	Days or weeks	Negligible	High	Very good	Swelling Cockling Blocking Inks running Mold threat
Dehumidification	Large, commercial dehumidifiers installed to dry building, furnishings, and collections <u>in situ</u>	Varies		Low	Good	Limited cockling, if used only on damp items
Freezer Drying	Items placed in self-defrosting freezer (under 10 degrees F) are frozen, then ice is slowly sublimated	Weeks or months	Negligible (if done at home)	Moderate	Very Good	Swelling Blocking
Vacuum Thermal Drying	Items placed in chamber; vacuum drawn; heat introduced to melt and/or "boil out" water	4-6 weeks per load	\$3-5 per volume	Low	Good	Potential Swelling Cockling Inks running Blocking Damage to film media
Vacuum Freeze Drying	Frozen items placed in chamber, vacuum drawn, small amount of heat introduced (below 32 degrees F); ice crystals drawn out by sublimation	1-2 weeks per load		Low	Good	Leather and vellum may warp Photos may lose gloss

Resource: SOLINET Preservation Program
 Establishing a Vital Records Program: ARMA Draft Standard, June 22, 2002