

**Moisture Control During Film storage**

Moisture is a major source of trouble for magnetic (tapes, cassettes) and photographic media alike. While virtually all photosensitive materials deteriorate with age, the rate is largely dependent upon the ambient weather. Deterioration increases rapidly under high temperature and humidity levels. High humidity alone is usually more harmful than high temperatures.

**Effects of Uncontrolled Humidity**

- Loss of readable data
- Binder breakdown of magnetic media

**Causes of Uncontrolled Humidity**

- Decreased magnetic capability and deterioration of the binder/ backing of the tape
- Microbial growth especially in silver gelatin films
- Trapped moisture in tubes
- Condensation

**General Recommendation**

It is recommended that the medium to be stored at:



Other Film Related Applications	Temperature	Humidity
	oC	%RH
<b>Production/Processing</b>		
Chilled Rollers for Film Casting	< = 10	35
Film Development	21 - 24	50-55
Film Drying	21 - 27	50-55
Film Printing	21 - 27	60
Photo Drying Room	32 - 38	35-45
Photo Finishing Room	22 - 23	40-55
Photographic Film Manufacturing	22 - 24	40-45
<b>Storage</b>		
Chromatography Material Storage	20 - 25	30-40

Film Storage	21	15-30
Film Storage, Color	23 - 18	30
Microfilm, Storage	-10 (-4)	30-50
Negative Film Storage	5	50
Master film based records	5°C-12°C	30%-40% RH
Magnetic media	18°C-20°C	35%-40%
Optical disks	4°C-20°C	20%-50% RH

**Bry-Air Solution**

It is necessary to block the fungus growth in its tracks before it makes a permanent impairment. They have to be stored in low and stable temperature and humidity conditions. Dust also should be prevented from entering the storage areas.

Dehumidification is essential in the preservation of rare objects, photosensitive material and magnetic media. A desiccant dehumidifier with cooling coils is the most effective and economical way of achieving the desired conditions.

Bry-Air Dehumidifiers, when used in conjunction with air conditioning, can provide the perfect environmental storage conditions for all sorts of valuable photosensitive materials, magnetic media, artifacts, documents and works of art. Bry-Air dehumidifiers provide a low humidity environment which prevents microbial attack.

For storage and preservation, archives and libraries should maintain humidity levels of 40-45% RH. This level of humidity prevents drying out of the material. Simultaneously, it also prevents warping and the formation of mold.

- Negative films to be stored at temperatures of 13°C-20°C (55°F-70°F) and a relative humidity of 30%
- Video tapes to be stored at temperatures maximum of 15°C and 25%-35% relative humidity

**Partial Reference List**

- Namgyal Monastery Video Lab. Dharmshala, India
- National Photo Library, Malaysia
- Philippines T.V. Station, Philippines
- Radio & T.V. Malaysia (RTM)
- Republic Broadcasting System (TV Station), Malaysia
- Satyajit Ray Film & TV Institute, India
- All India Radio, India ...and many more