

VIDEOTAPE LONGEVITY

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The life expectancy of VHS videotape may be as short as ten years. Technical reports by Sony, Ampex, Agfa, and the Institute of Electrical and Electronics Engineers suggest that magnetic tapes must be carefully stored and maintained or their lives may be relatively short.

It's a question of chemistry. Videotape is made from a base of polyester which is coated with polyurethane. The coating is a binder which holds the magnetic oxide particles. These oxide particles carry the magnetically encoded information within the tape. This plastic binding is sensitive to temperature and humidity. These conditions can cause the urethane particles in the coating to react with water. They will break free and can migrate to the surface of the tape. When the tape is played, the oxide particles which are no longer held by the binder can drop off and the video signal information drops with them.

Tape manufacturers recommend:

- Store the tapes at 59 to 77 degrees Fahrenheit and at a relative humidity of 40% to 60%.
- Fast forward and rewind your tapes at least once every three years. This helps keep the polyurethane binder from sticking to adjacent layers of a tightly wound tape and possibly tearing the oxide particles from the base.
- Before storing your videotapes, rewind them from end to end.
- Buy the highest quality tape. It is coated more evenly and, therefore, lasts longer.
- Keep tapes away from strong electromagnetic fields such as stereo speakers and television sets.
- Store tapes vertically with the tape wound onto to the bottom of the spool.
- If a tape has been in the heat or cold, let it reach room temperature before playing it.
- For special tapes, it's wise to keep them in plastic bags to protect them from dust and moisture.

If a tape is of great value, you might want to transfer it to film which could add 50 to 100 years to its life.