

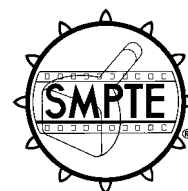
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SMPTE RECOMMENDED PRACTICE

RP 103-1995

Revision of RP 103-1982

Care, Storage, Operation, Handling and Shipping of Magnetic Recording Tape for Television



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1 Scope

This practice provides guidance to technical managers, archivists, and technicians for the care, storage, operation, handling, and shipping conditions that help maximize life expectancy and interchange performance for television (video) magnetic recording tape.

2 Storage conditions

2.1 Temperature and humidity

Tapes should not be stored in areas of extreme temperature and/or extreme humidity for long periods of time (see table 1). Temperature and humidity in the storage area should be selected as follows:

For short- and medium-term storage (up to 10 years):

Temperature	+15°C to +23°C
Humidity	40% RH to 55% RH

For long-term storage (over 10 years):

Temperature	+17°C
Humidity	30% RH

2.1.1 Variation from selected storage temperature and humidity from above values should be kept within $\pm 2^\circ\text{C}$ and $\pm 5\%$ RH throughout the storage period.

2.2 Airborne contaminants

Floors should be finished so that dust and debris are minimized due to pedestrian traffic. Cement floors should be sealed. Tile floors should not be waxed. Floor covering materials should be selected to minimize airborne debris and static generation. Air entering the storage area should be filtered to ensure or approach a class 100,000 environment as defined by Federal Standard 209D. Air pressure in the storage area shall be maintained at a positive pressure relative to adjacent hallways and rooms.

Table 1 – Summary of environmental conditions

	Operations	Storage		
		Medium term <10 years	Long term >10 years	Shipping
Temperature*	+17°C to +25°C	+15°C to +23°C $\pm 2^\circ\text{C}$	+17°C $\pm 2^\circ\text{C}$	-20°C to +45°C
Humidity*	30% to 70% $\pm 5\%$	40% to 55% $\pm 5\%$	30% $\pm 5\%$	5% to 80%
Temperature gradient/hour	10°C per hour	n/a	n/a	10°C per hour
Humidity gradient/hour	10% per hour	n/a	n/a	10% per hour
Stray magnetic fields	800 A/m (10 Oe)	800 A/m (10 Oe)	800 A/m (10 Oe)	4000 A/m (50 Oe)
*NOTE – For operations or medium-term storage, the center point for temperature and humidity can be selected anywhere within the allowable range, but the variation cannot exceed the allowable range.				