

HY-CRITICAL SYSTEM®

PREMIUM MASTER

Tape Specification

Description	TRI HY-CRITICAL SYSTEM PREMIUM MASTER computer tape is manufactured and tested according to the specifications established by major manufacturers of data processing equipment. It also meets or exceeds all physical and magnetic recording standards set forth in ansi document X 3.40
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Physical Characteristics

Base Film	Polyester film
Toxicity	Non-toxic
Length end to end	2400 ft. +50 ft. -0 ft. 1200 ft. +25' -0', 600 ft. +20' -0', 300 ft. +20' -0'
Thickness	
Base	.00142 in. nominal
Coating	.0004 in. maximum
Total	.0019±.0003 in.
Width	.498±.002 in.
Flammability	Self-extinguishing
E-Value	Greater than 1/4" to insure proper loading by automatic cartridges
Discontinuity	No splices or holes
Curvature	Less than .125 in. per 36 in.
Adhesion, layer to layer	None
Dynamic Skew	The variation in time between the two outside track read signals is less than 0.5 microseconds when tested during the writing process on an IBM 729VI tape drive.
Tensile Strength (3%)	10,000 psi min.
Yield Stress	10 lbs. min.
Magnetic Surface Resistance	Less than 5×10^6 ohms per square but more than 5×10^8 ohms per square
Friction Drag	Coating to brass or chromium: The resistance of the tape to motion on brass or chromium is not more than 120 gr. When pulling a sample over (90 deg. wrap) a one inch diameter cylinder at two inches per minute with a 65 gr. Weight attached to the other end of the tape.
Stiction	None
Wear of Transport	The abrasiveness of the tape shall not exceed 0.01 milligrams per 1000 ft. When measured in accordance with standard test procedures STP-1103. In addition, the wear of a new IBM head, 729, 2400, or 3240 series, does not exceed 100 microinches after 1000 full-length passes.
Start Time	Meets all IBM 729, 2400, 2420, and 3420 series tape drive start time requirements.

Electrical Characteristics

Signal Output Level	Recording all "one" at a specific bit density, the average of all pulse amplitudes, over a minimum of one inch of tapes on a read-write pass, compared to national bureau of standards amplitude reference tape is as follows: 800 bpi ±10% from reference tape, 1600 bpi ±25%/-10% from reference tape, 6250 bpi ±20% from reference tape
Test Level	35% for 1600 bpi; 35% for 6250 bpi
Signal Quality (Error)	Write skips at 35% level 6250 bpi avg. less than 5 Write skips at systems level 6250 bpi—zero Permanent write errors—zero Read error—zero Gross error—zero
Signal Compatibility	For use at 800 bpi, 1600 bpi and 6250 bpi

Surface Characteristics

Burnished Surface	Tape surface should be burnished to a 1 to 5 micro in. finish
Cleaned Surface	Tape surface should be 99.9% free of foreign matter

Environmental Characteristics

Operating	0 to 100°F., 20 to 80% R.H.
Storage	0 to 175°F., 20 to 80% R.H.
Optimum operating and storage environment	is 70°±5°F. and 40°±5% R.H.
Performance Standards (Non-IBM Drives)	Tape tested or used on tape drives other than IBM will meet all performance standards providing the equipment used is fully IBM compatible and is properly adjusted and operated in accordance with the equipment manufacturers' specifications.