



## Accelerated Testing Results

Delkin Devices' tests are conducted according to ANSI/PIMA IT9.27-1999 guidelines titled:

" Life Expectancy of Information Stored in Recordable Compact Disc Systems  
 -- Method for Estimating, Based on Effects of Temperature and Relative Humidity"

In general, the test consists of placing samples in an environmental chamber at specified temperature and humidity levels for 5 different "stress conditions".

A stress condition is defined by, for example, 2000 hours (in 500 hour segments) at 85% relative humidity and 80 centigrade. Temperature and humidity "Incubation" periods are reached gradually with the use of ramp times. (This is done to avoid a shock condition where bubbles can form in the media due to rapid transition).

The 5 stress conditions are defined as follows:

Test Cell number	Test Stress	Number of samples	Incubation period (hours)	Minimum Total Time (hours)	Min Equilibration duration (hours)
1	80C, 85% RH	10	500	2000	6
2	80C, 70% RH	10	500	2000	5
3	80C, 55% RH	10	500	2000	4
4	70C, 85% RH	15	750	3000	8
5	60C, 85% RH	30	1000	4000	11

(Equilibration is the time spent at ambient humidity before removal from chamber)

Before beginning the test and after each incubation period the discs are tested for error rates. Max BLER for CD-R and Max PIE8 for DVD-R. Failure is defined by error rates that exceed Orange Book standards (defined by Sony/Philips) or DVD-R specifications (defined by the DVD Forum).

Due to the length of the test, results from only Test Cell number 1 are sometimes used: 80C / 85% RH. Life expectancy is estimated according to ANSI guidelines based on the use of the Eyring model which is a mathematical equation derived from thermodynamic laws.



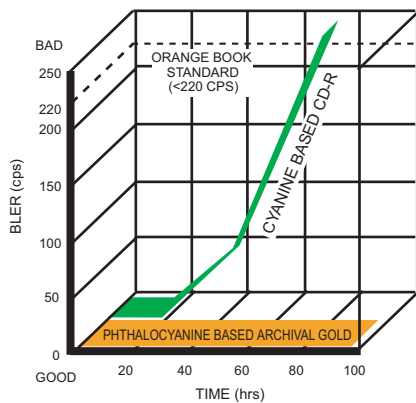
## Accelerated Testing Results (Continued)

eFilm Archival Gold is the most trusted name for long term photo storage today. All of our CD-R media is produced with the patented Phthalocyanine dye under strict manufacturing conditions to insure that your data is safely preserved for years to come.

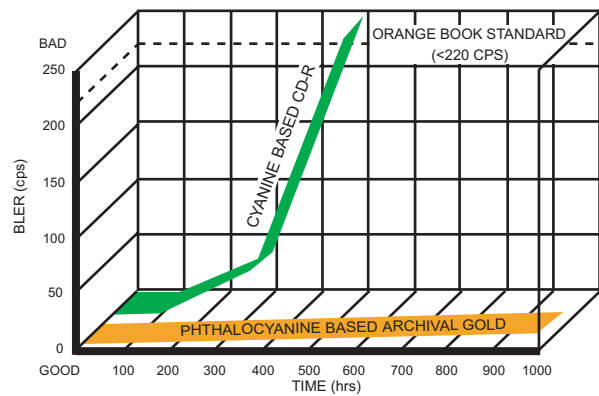
Environmental tests show that the eFilm Archival Gold CD-R will last up to 300 years (under proper storage conditions). These estimates are based on results from industry standard tests that subject the discs to 85% relative humidity and 80 degrees Celsius for 2000 hours.

The Light Fastness Test (upper left) shows that eFilm Archival Gold will withstand the full spectrum of light, same as the sun, for 100 continuous hours without damage. Our competitors' discs, with cyanine dye, begin to deteriorate after only 20 hours and fail at 65 hours.

Light Fastness Test (Carbon Arc Lamp)



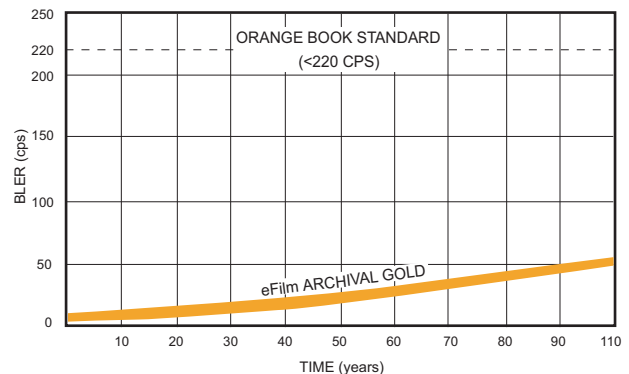
Damp Heat Test (80°C 85% RH)



### Exceeds The Orange Book Standards

ITEMS	eFilm ARCHIVAL GOLD DISC	ORANGE BOOK STANDARD
UNRECORDED		
RADIAL CONTRAST (RCa)	0.05	>0.05
PUSH-PULL (before)	0.07	
RECORDED		
REFLECTIVITY (R <sub>top</sub> )	74%	>65%
SENSITIVITY	5.9mW	4-8mW
BLOCK ERROR RATE	<0 CPS	<220 CPS
JITTER (σ <sup>+</sup> ) PIT	<30 ms	<35 ms
JITTER (σ <sup>+</sup> ) LAND	<30 ms	<35 ms
I <sub>3</sub> /I <sub>top</sub>	0.72	0.6
I <sub>11</sub> /I <sub>top</sub>	0.40	0.3-0.7
ASYMMETRY	<+02	<+02
PUSH-PULL SIG.	0.08	0.04-0.09
CROSS TALK	0.30	0.30
READ STABILITY	> 10 (0.07mW)	> 10 (0.07mW)
LIGHT FASTNESS	>Wool Reference#6	>Wool Reference#5

### Life Time Estimation Under Normal Conditions



\*The above chart enables Delkin Devices to provide a limited lifetime warranty on all its media.