

Why Recertified Tape Makes Sense for Your Data Center

Graham Magnetics

The following article takes a point-by-point look at a recent White Paper, "Recertified Cartridges—The Hidden Risks."*

As a former media manufacturer, Graham Magnetics has a long and rich history in the tape media manufacturing market, and we have a strong reputation for producing quality products. Although we no longer manufacture tapes, we have a unique understanding of what it takes to make a quality tape cartridge product, and we feel that Recertified Tape can offer you a very reliable and economical alternative to new tape.

As opposed to Recertified Media, Used, Reconditioned, Reworked, and Remanufactured Media all raise questions about the process involved in producing these products. In these cases there may not be published specifications and warranty information available so the customer can see exactly what they are receiving. We would also ask, "how can the user identify which product came from what vendor and how is any verbal warranty implemented?"

At Graham Magnetics, we have addressed this issue by providing published specification and warranty information for our Graham Recertified product, and the term "Recertified" identifies our process used to produce such media. At Graham Magnetics we also place a unique date stamp on every piece of recertified media as an identifier that we provided the media, and to provide the beginning time stamp for our warranty.

Graham Recertified Media Defined

For informational purposes, we define Graham recertified tape as media that is tested on OEM tape drives and test equipment using methods that were often employed in the 100% certification of newly manufactured tape. Our testing process utilizes our proprietary software to insure that the error levels guaranteed are at least as good as those demanded by Industry Standards and/or ANSI for new tape at the time of production.



Point-by-Point Response to Claims Against Recertified Media

Note: All claims against recertified media are represented in bold in points 1-7**, and Graham's response follows.

(1) "Using Recertified tape cartridges (cartridges resold after their initial purchase, and sometimes use) can introduce unforeseen risk into IT departments."

Manufacturers typically offer a long warranty period on their new tapes, and for a manufacturer to suggest that the new tape will last for many years in the hands of one owner but would not last as long if the ownership changes hands surely does not engender much faith in the manufacturer's product. The tape has a specific warranty period. If it's a quality product, it should last that period regardless of the number of users, providing the data center maintains a suitable environment. But even manufacturers state in their specs that media exposed to environments outside of recommended specs can still be used if reacclimated. This strikes us as contradictory, and in any event if there is damage on the tape, it is identified during Graham's recertification process and this product is not sold through the Graham recertified program. The tape that Graham Magnetics does recertify is obtained from state of the art data centers that carefully manage their equipment and media assets.

phone
800-364-9838
404-995-6060

fax
800-334-8273
404-872-8247

web
www.grahammagnetics.com

email
info@grahammagnetics.com

mail
Graham Magnetics
Division of eMag Solutions
3495 Piedmont Road
Eleven Piedmont Center,
Suite 500
Atlanta, GA 30305

Why Recertified Tape Makes Sense...

(2) "There are two primary reasons that cartridges come into the hands of recertifiers. One is when tapes experience "early life failure" due to physical damage or exposure to some type of debris or contaminant, resulting in unacceptable error performance. The second is advancing technology--a new tape drive purchase renders a current media supply obsolete for a particular user."

Graham does not accept physically damaged tapes, and even tapes with more than slight cosmetic blemishes are disqualified for use during our recertification process. Of the tapes we initially acquire, we certify them on IBM, STK, Quantum and other drives using software developed to test for errors at often better error performance criteria than industry standards dictate. Any data that remains on the tape is not usable/readable much in the same way that old unreadable data resides in every overwritten tape cartridge in every data center in the world. And finally yes we do accept tapes that have been replaced by newer technologies provided they are current vintage media.

(3) "Media recertifiers purchase these "discarded" tape cartridges, possibly run them through a testing or "recertification" process, and then resell them."

As defined above, ALL Graham tapes are put through a stringent recertification process that is often better than industry standards. Since many new tapes are only "batch tested," Graham's 100% testing process typically provides a higher quality level than for many newly manufactured tape cartridges. In addition, tape purchased by Graham is seldom "discarded" tape or thrown away. Graham pays the owner of this media a premium price to buy it back and recertify it. The manufacturer is only in the business of providing you with new media and not interested in providing intelligent asset management by offering any type of reasonable buyback of media.

(4) "The question of whether to go with recertified tapes is one that speaks to the cost of operations and the value of an organization's data. From an operations standpoint, Gartner Group

places the cost to the average data center for a job abend at \$1,000. If job abends from recertified media increased by just one per week, it will cost the data center more than \$50,000 in operating expense, not including the cost of any missed SLA's (Service Level Agreements) due to failure to complete a job or process on time."

Using truly recertified media will help avoid costly re-runs. Experience shows that when recertifying tapes from data centers, we typically see a 10% fall out. This means that properly recertified tape will actually decrease, not increase, the number of abends a data center experiences with their own non-recertified or used tapes.

(5) "In a perfect world, cartridges would be transported, stored, handled, and placed in operating environments that are clean and impart no stress or damage to the cartridges. Under these conditions most magnetic media can last more than 25 years. However, history has shown that the most likely cause of a tape's early life failure is handling damage."

This is a great benefit for using recertified media. As we've already stated, any damaged tapes (about 10%) are eliminated from the pool during the recertification process, thereby improving recording performance for users.

(6) "Debris is another source of early life failures for a cartridge. The major sources for debris are contamination from within the data center, debris exposure during shipping or transportation, and cross-contamination from problem cartridges. As with handling damage, the effects of debris contamination may not be immediate, and may take some time to develop. Even one piece of debris can become embossed or result in a "print through" to adjacent layers of media by distorting the base film."

We agree, which is why our tapes are certified on IBM, STK, Quantum and other drives by software developed to test for errors at often better criteria than IBM/ANSI standards specified. When debris errors are detected,

phone
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fax
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404-872-8247

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email
info@grahammagnetics.com

mail
Graham Magnetics
Division of eMag Solutions
3495 Piedmont Road
Eleven Piedmont Center,
Suite 500
Atlanta, GA 30305

(6) continued-

the cartridge is immediately removed from the recertification process. The process of recertification uses a tape scraper blade and vacuum system within a drive which cleans the tape surface by removing debris.

(7) "When considering what recertified media offers, you should ask yourself some critical questions on the balance between media cost and the potential costs of recertified tape issues. How many more errors do you allow on a recertified cartridge compared to a newly manufactured one? How many errors define end-of-life for a cartridge? Buyers should be aware that recertified media may have a shorter useful life than new tapes and may likely result in poorer performance for the entire library. Do we monitor error rates for the tape system to identify drives that need service or media that may need to be retired? The use of recertified media may cause system error rates to go up, triggering excessive drive service calls. For many data centers, these excess service calls are now billable items even if basic maintenance is included in the service contract."

Our recertification process includes criteria for temporary errors. At Graham Magnetics, we think it is better to recertify tapes and make sure these criteria are not exceeded. In regards to "useful life," we see typical usage of media as being between 1 pass and 2,000 passes depending on the nature of the process, yet we see that manufacturers typically claim much more than this indicating to the user a large safety net. We therefore do not see "useful life" as an issue.

The facts are very simple. Manufacturers specify their warranty as for time periods and usage rates. In all instances, products that are put through our recertification process come to well within those guidelines. Further, we believe that tapes get damaged and degrade in all environments. But a three year old tape that is recertified will hold up better than three year old tape that is not recertified, and we prove this by pulling out typically 10% of

all used media we receive for this program. The recertified media supplied is current vintage product with warranty periods of up to "lifetime." The age can therefore not be an issue. **Graham has supplied millions of recertified tapes in the last several years alone, and have significantly fewer returns than batch tested new tape.** Our clients continue to return for future orders because they trust the media from experience and it saves them a lot of money.

In conclusion, we once again state that Recertified Tape offers you a very reliable and economical alternative as opposed to new tape. We're so confident in our product and our process that you can view a typical recertification process online at <http://www.grahammagnetics.com/recertifiedMediaProdProcess.html>. In addition, we stand behind our recertified product line, and every cartridge is marked with our 100% tested stamp along with the Julian Date. Our ten year warranty begins from that data forward, as we assume the warranty liability for the recertified product that we provide.



As always, when you employ product from Graham Magnetics, you receive the best. We are proud of the high quality products that we provide!

*Imation's White Paper, "Recertified Cartridges—The Hidden Risks" 2003—
http://www.imation.com/products/pdfs/WhitePaper_IMN_Recertified_Media.pdf

**All statements in bold are taken directly from Imation's White Paper, "Recertified Cartridges—The Hidden Risks" 2003 and are hereby acknowledged.

phone
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web
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email
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Division of eMag Solutions
3495 Piedmont Road
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Suite 500
Atlanta, GA 30305