



# SPECTRA CERTIFIED MEDIA



[www.spectralogic.com](http://www.spectralogic.com)

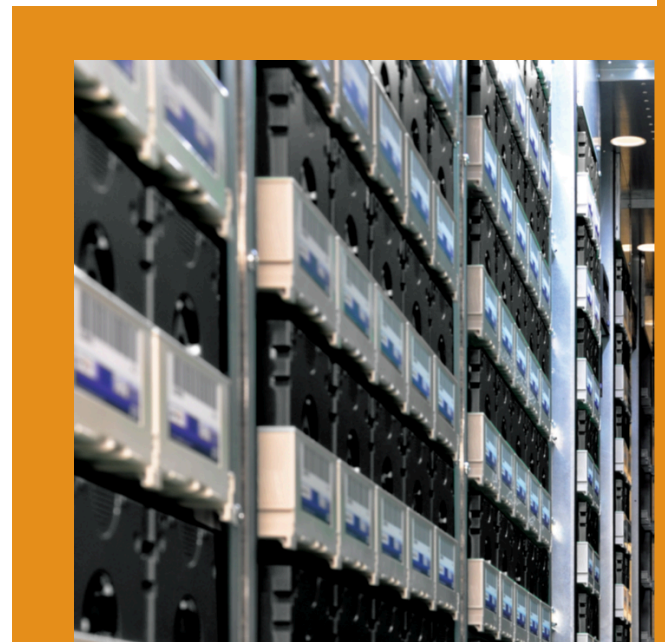
# Spectra Certified Media starts with, **Using only the best media**

Spectra® Certified Media offers a reliable tape solution that keeps your data secure, using only the highest quality media available. Our solution surpasses all other manufactured tapes giving you peace of mind.

Spectra Certified Media benefits:

- Highest and most consistent media performance and capacity
- Faster tape drive write times due to fewer rewrite errors
- Extends the life of tape drives and media
- Saves valuable staff time initializing LTO-9 media
- Investment protection with a Spectra Lifetime Guarantee

Spectra Certified Media provides worry-free data protection with the highest quality LTO and IBM® TS11XX media.



# A Lifetime Guarantee

The Spectra Certified Media process transforms all tape media into the industry's most reliably functional and trouble-free tape media. No other media offers increased reliability, performance, time savings, and efficiency as Spectra Certified Media.



Spectra not only stands behind our Certified Media, but we lead the industry with a Lifetime Guarantee.

If you ever have a defective or failed Spectra Certified Media cartridge, Spectra will replace it, no questions asked.



# 7-Step Tape Media Certification Process

Spectra Logic has meticulously designed a seven-step process that all media must pass before it qualifies as Spectra Certified Media.

The rigorous certification process has been refined over multiple tape generations, millions of cartridges and several patents, ensuring superior media quality for efficient, pain-free backup and archive.

1

## Environmental Acclimation

A 24-hour media acclimation period in an environmentally controlled lab.

2

## Barcode Tagging

Install custom or certified media barcodes to save you time and avoid duplicates.

3

## Initialize and Calibrate Media

LTO-9 media from the factory now requires pre-calibration before use. Spectra does it for you, saving up to 30 minutes per tape.

4

## CarbideClean

Proprietary media cleaning process to remove harmful manufacturing process debris.

5

## Read/Write Verification

Test each cartridge using an algorithm against pre-established metrics.

6

## Write Metrics to Memory

Write all tested and verified metrics on each cartridge's Media Auxiliary Memory (MAM) RFID chip for superb media tracking, reporting and management.

7

## Final Inspection

Verify that the media has passed all tests and qualifies as Spectra Certified Media.

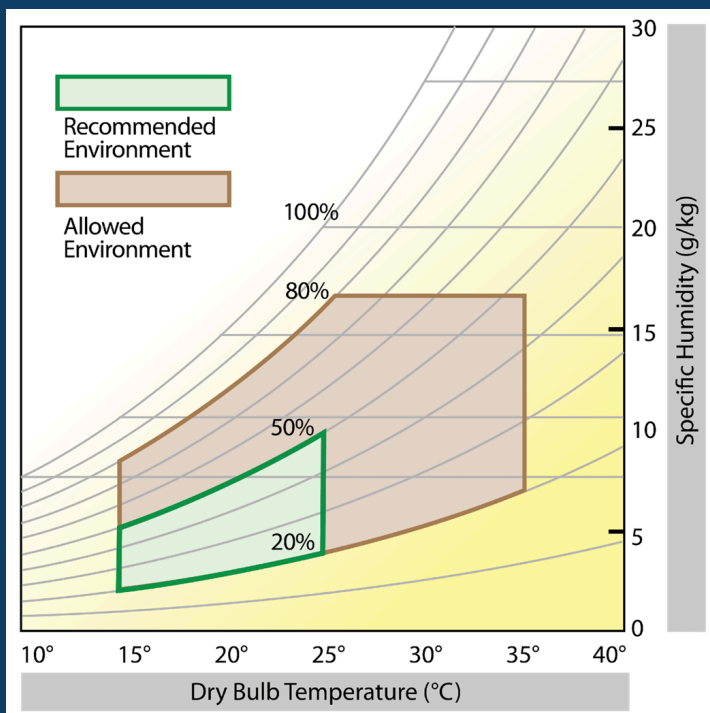


Step 1:

# Environmental Acclimation

LTO and IBM TS11XX media are acclimated in the Spectra media processing room for at least 24 hours.

During acclimation, temperature and absolute humidity are controlled to ensure that media will perform within all areas in the allowable environmental specification range. This is the ideal environment for all new media throughout the certification process.



Step 2:

# Barcode Tagging

Spectra installs custom barcodes or our certified media barcodes based on how you request the media. Pre-applied barcodes

- Ensures barcode labels are not duplicated
- Makes continuous media tracking very efficient when it arrives at your doorstep

Next, all media is loaded into TeraPack<sup>®</sup> magazines, a key component of our comprehensive solution for ease of handling and management. A TeraPack magazine holds 10 – LTO tapes or 9 – TS11XX tapes.



**Chew on this fun fact:**

The first commercial use of a barcode occurred on June 26, 1974, when a pack of Wrigley's chewing gum was scanned at a supermarket in Troy, Ohio, USA



Step 3:

# Initialize & Calibrate Media

With the introduction of LTO-9 media, a new calibration process is required to optimize each new cartridge before writing data to it. Calibration is necessary for greater precision due to the increased track numbers for higher capacity.

The benefits of Spectra initializing and calibrating media

- Saves your organization hundreds to thousands of hours, from 20 to 30 minutes per LTO-9 cartridge.
- Allows instant reading and writing when you receive your new media.
- Creates a referenced calibration, enabling intelligent tape drive alignment and data placement.

Spectra Logic patented calibration & initialization process saves you valuable time.

US Patent 11,830,528  
Universal Tape  
Cartridge  
Characterization  
Date: Nov 28, 2023

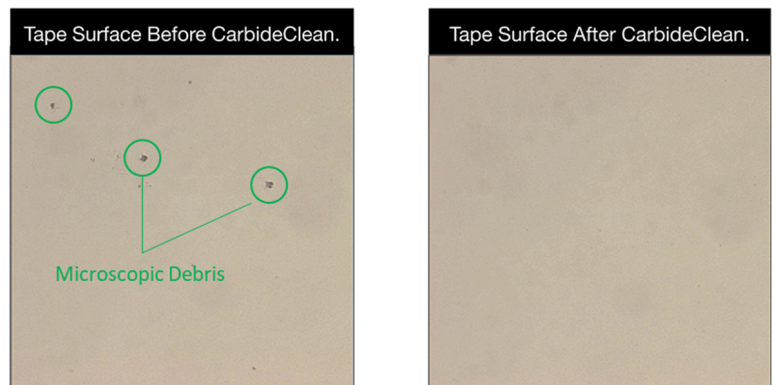


Step 4:

# CarbideClean Extends Tape & Drive Life

All new tape cartridges have manufacturing debris, which can slow performance and reduce capacity.

CarbideClean, the proprietary Spectra media cleaning process, removes debris from manufacturing to lengthen drive and media life, allowing your system to run at peak performance.



LTO tape magnified at 1:5000. CarbideClean removes debris, maximizing the potential that every bit is written and read.

The exclusive Spectra CarbideClean process removes manufacturing debris to:

- Maximize the potential that every data bit is written and read on the tape cartridge
- Prevent debris from contaminating the tape drive, which can reduce reliability, introduce read/write errors and increase storage workflow times





Step 5:

# Read/Write Verification

Next, Spectra performs a full read/write verify pass down the entire length of the tape. During the verification pass, multiple metrics (such as throughput, soft read and write errors, hard read and write errors, retries and capacity per wrap) are collected to ensure the tape meets Spectra Certified Media standards. This also guarantees that no areas on the tape have higher retries or error rates.

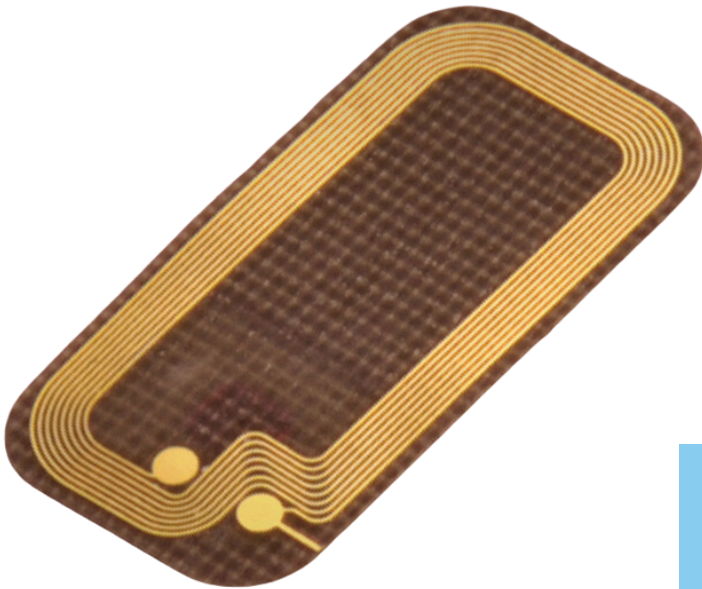
The Spectra verification process is not just about ensuring standards, it's about enhancing performance.

By reducing the tape drive's average rewrite rate, it significantly improves a system's overall write performance. This not only meets standards but also reduces wear on your tape drives.



Step 6:

# Write Metrics to Memory



Media Auxiliary Memory (MAM) chip

Each piece of tape media is equipped with a Media Auxiliary Memory (MAM) chip, which is embedded by the manufacturer. The MAM chip serves as a storage unit for small amounts of data and can transmit this information over RFID, making it a key component in data management.

Spectra Logic rewrites this chip with a comprehensive set of 40+ data points about the tape cartridge. The Spectra library management software then uses this wealth of information for Media Lifecycle Management and proactive reporting.



## Step 7:

# Final Inspection

Spectra performs a final inspection to ensure the media has successfully passed all tests and meets all Spectra Certified Media qualifications. Once this comprehensive process is complete, the media is promptly packaged, shipped to your site, and ready for immediate use, providing you with the necessary convenience.

Thanks to the Spectra Certified Media process, all LTO and TS11xx tape media are transformed into the industry's most trouble-free tape media. Spectra Certified Media stands out with its increased reliability, performance, time savings, and efficiency, offering you a product you can trust and rely on.

### Lifetime Guarantee: No Questions Asked

The Spectra media return policy is not just a policy – it's a promise. If you find a Spectra Certified Media cartridge defective, Spectra will replace it, no questions asked.


This lifetime guarantee is our commitment to your data protection.





# Continuous Proactive Tape Management

With Spectra CertifiedMedia and Spectra tape libraries, you will have access to our exclusive Media Lifecycle Management (MLM) feature.

- Monitors, tracks and reports on all aspects of tape media usage and health status
- Significantly reduces tape-related errors and unscheduled downtime
- Enhances the reliability of your backup and archive operations.

**Poor Health** 



















**Average Health** 



**Good Health** 

**Media Lifecycle Management Report**

Partition:

Report:

Barcode	Media Health	Load Count
 000072L5   Poor 6764		
 000074L5   Average 4886		
 000151L5*   Average 2916		
 000134L5   Good 2385		
 241844L4   Good 2800		
 000294L5   Good 1639		

 = Spectra Certified Media  = CarbideClean™ Media

Find by Barcode:



# Greater Reporting with Media Lifecycle Management

When using Spectra Certified Media, the health of each tape cartridge is tracked for the duration of its life. If you buy tape media elsewhere, you risk receiving tapes that do not perform optimally, causing tape drives and media to fail.

Media Lifecycle Management (MLM) helps you proactively manage tapes efficiently from start to end with continuous assessments on more than 40 metrics every time a tape is loaded, protecting your tapes and data.

MLM is included in all Spectra libraries at no additional cost.



## MLM Tracking Statistics

- Tape Barcode
- Media Health
- Current Partition
- Load Count
- Soft Write Errors
- Certification Date
- Remaining Capacity
- Maximum Capacity
- Last Read Time
- Last Write Time
- Media Serial Number
- Media Type
- Load Count
- Certification Date
- Cartridge Generation Type
- Cartridge Manufacturer
- Cartridge Manufacture Date
- Clean Count
- First Clean
- First Clean Drive SN
- First Clean Temperature
- First Clean Humidity
- Latest Clean
- Latest Clean Drive SN
- Physical Write Protection
- Encryption Type
- Encryption Moniker
- Write Compression Ratio
- Read Compression Ratio
- Remaining MAM Capacity
- Write Errors
- Read Errors
- Initial Write
- Most Recent Write
- Initial Read
- Most Recent Read
- Recently Assigned Barcodes
- Last PostScan
- Minimum Lifetime Temperature
- Maximum Lifetime Temperature
- Minimum Lifetime Humidity
- Maximum Lifetime Humidity
- Exported
- Mount Periods
- Last 10 Mount Device History
- Cleans remaining
- Export user
- Export time

# Tape Library Media Features

Spectra takes a comprehensive approach to ensure tape media operates at peak performance. While it starts with Spectra Certified Media, Spectra provides additional tools and resources to maximize your media investment, optimize performance and streamline operations. These features and benefits include:



Features	Benefits
<p><b>Auto Drive Clean:</b> Spectra libraries automatically clean your drives based on their needs and usage.</p>	<ul style="list-style-type: none"> <li>• Protect your data from media errors.</li> </ul>
<p><b>Data Integrity Verification:</b> Tools scan tape to ensure that new media is ready to accept data and verify data integrity periodically or on demand.</p>	<ul style="list-style-type: none"> <li>• Improve tape reliability</li> <li>• Deliver faster performance</li> <li>• Verify data integrity</li> </ul>
<p><b>TeraPack Magazine:</b> Holds 10 - LTO-9 or 9 - IBM TS11XX cartridges in a single magazine</p>	<ul style="list-style-type: none"> <li>• Improve media handling efficiency by 90%</li> <li>• Increase data density, store more data in a smaller space</li> </ul>



# Spectra Certified Media for Peak Performance & Reliability

Spectra Certified Tape Media provides more than just the most reliable tape media on the market. You're getting peace of mind. The ROI benefits of using certified tape media go beyond data protection. You'll also enjoy a prolonged tape drive life, faster performance, reduced need for manual handling, and the convenience of pre-calibrated LTO-9 media.

Learn more about the benefits of [Spectra Certified Media](#).



## About Spectra Logic Corporation

Spectra Logic modernizes IT infrastructures to preserve, protect and defend data, whether on-premises, in a single cloud, across multiple clouds or in all locations at once. Our cost-effective solutions help organizations efficiently manage, migrate and store long-term data, from terabytes to exabytes, with features that make it ransomware resilient.

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Toll Free: +1 800-833-1132 • +1 303-449-6400  
6285 Lookout Road • Boulder, CO 80301 USA