

Black Watch™ 9840

## Black Watch™ 9840 Half-Inch Tape Cartridge



*Center-parked dual-hub design saves time by providing faster access to data because searches start from the middle of the tape, not the end.*

*Metal Particulate (MP) tape with proprietary Imation backcoating dissipates static and minimizes tape compression for better performance and reliability.*

*Convenient form factor based on 3480/3490E cartridges preserves investment in existing library equipment; it even fits DLT automation.*

*Factory-written servo pattern keeps heads aligned on data tracks for precise data reading/writing and improved reliability.*

*With internal cartridge guiding, the tape never leaves the cartridge for improved data integrity and an average access time of 13 seconds (includes load time).*

*The Media Information Region (MIR) keeps track of total cartridge mounts, passes and additional performance information to optimize the management of media and drives.*

In business today, information access and capacity demands are a growing challenge for efficient, cost-effective data management. Now, one storage technology radically redefines performance: 9840 half-inch tape technology. The new Black Watch™ 9840 Half-Inch Tape Cartridge is at the heart of the solution, with its revolutionary, totally internal tape path design and a familiar 3480-based form factor.

The 9840 tape cartridge draws on the long history of Imation half-inch tape development and combines "the best of the best" from current solutions with brand new innovations. Offering access speeds that rival random access, the 9840 tape cartridge sets new standards for half-inch tape performance with proven enterprise-strength reliability.

### Online Applications

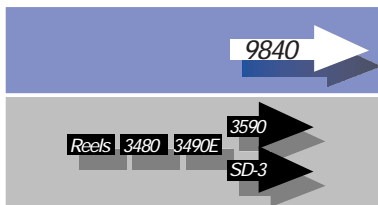
Fast access and throughput (transfer rates of up to 20MB/second compressed) make the affordable 9840 tape cartridge the new standard for online tape applications.

### Backup and Restore

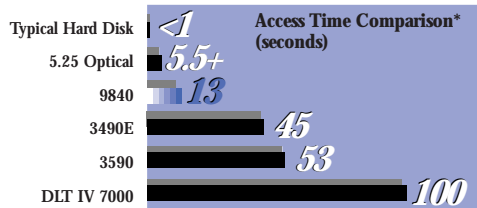
For mission-critical information, the 9840 tape cartridge offers uncompressed capacities of 20GB (typically 80GB compressed), fast access to data and proven Black Watch reliability.

### Archive

With fast load times, 20GB uncompressed capacity, factory-recorded servo tracks and easy automation, the 9840 tape cartridge changes the rules of archiving.



*The Black Watch™ 9840 Half-Inch Tape Cartridge builds on the proven tradition of half-inch tape reliability and starts an innovative new path of its own.*



\* Based on average first access to data, including load time.

*9840 technology rivals random-access technologies by achieving unprecedented access times for half-inch tape.*

# Imation™ Black Watch™ 9840 Tape Cartridge

## Physical Characteristics

<b>Substrate</b>	Polyethylene naphthalate (PEN)
<b>Capacity</b>	20GB uncompressed
<b>Durability</b>	
– Long Length	361 full-file writes/reads (7.2 terabytes) minimum (6,500 write/read passes)
– Short Length	80,000 write/read passes minimum

## Magnetic Characteristics

<b>Coercivity</b>	1625 ± 75 Oersteds (130 ± 6.0 KA/m)
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## Cartridge Mechanical Characteristics

<b>Size (overall cartridge)</b>	L x W x H: 4.92 in. x 4.29 in. x 1.00 in. (125mm x 109mm x 25.4mm)
<b>Weight</b>	9.17 oz. nominal (262g)

## Cartridge Performance

<b>Number of Tracks</b>	288 data tracks
<b>Track Following Servo</b>	Factory prerecorded. Caution: Do <b>not</b> bulk erase cartridges.
<b>Tape Speed</b>	80 ips r/w, up to 440 ips search (2 m/s r/w, up to 11 m/s search)
<b>Drop Test</b>	Suitable for use after a drop of up to 39.4 in. (1m)*
<b>Load/Unload</b>	10,000 load/unloads minimum

## Error Characteristics

<b>Permanent Errors</b>	Zero
<b>Archival Lifetime</b>	15–30 years

## Safety Characteristics

<b>Toxicity</b>	Non-hazardous to human health in anticipated use
<b>Flammability</b>	Self-extinguishing per UL94

## Environmental Recommendations

<b>Operating Conditions</b>	Acclimate for 24 hours prior to use 60°F to 90°F (15°C to 32°C) 20% RH to 80% RH 78°F (26°C) wet bulb maximum
<b>Storage Conditions</b> (up to 4 weeks)	40°F to 90°F (-5°C to 32°C) 5% RH to 80% RH 78°F (26°C) wet bulb maximum
<b>Optimal Archival Condition</b> (more than 4 weeks)	59°F to 77°F (15°C to 25°C) 30% RH to 40% RH 78°F (26°C) wet bulb maximum 18°F/hr (10°C/hr), 10% RH/hr maximum gradient
<b>Transportation Conditions</b>	-10°F to 120°F (-23°C to 49°C) 5% RH to 80% RH 78°F (26°C) wet bulb maximum

\* As with all high-capacity media, it is recommended that the data on a dropped cartridge be copied to another cartridge and the dropped cartridge be retired.

### WARRANTY

TEN YEAR LIMITED WARRANTY AND LIMITATIONS OF REMEDIES: Imation warrants that this product is free from defects in material and manufacture at the time of purchase. If any such defect appears within ten years from the date of purchase of the product, Imation's entire liability is, at Imation's option, either (a) repair, or (b) replacement of the product, or (c) refund of the purchase price of the product, which must be returned to Imation with proof of purchase. This warranty does NOT apply to product failure resulting from misuse, abuse, accident, neglect or mishandling, improperly adjusted or maintained drives, incorrect environments or wear and tear

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**Imation Enterprises Corp.**  
1 Imation Place  
Oakdale, MN 55128-3414  
888 466 3456 phone  
800 537 4675 fax  
<http://www.imation.com>  
[info@imation.com](mailto:info@imation.com)

**Imation Canada Inc.**  
P.O. Box/C.P. 5440  
London, ON N6A 5Z6  
888 IMN 3456 phone/tél  
888 864 2260 fax/télé



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