

Imation Black Watch™ 9940 Tape Cartridge

CAPACITY PLUS



High Capacity, Low Cost Storage Solution 60GB or 200GB Native Capacity

Your data storage needs are growing. And so are your storage options. So, how do you find a balance between high capacity and performance, with a low cost of ownership? The Imation Black Watch™ 9940 Half-Inch Tape Cartridge is your answer.

Exclusively co-developed with StorageTek, the Black Watch 9940 tape cartridge packs 60GB (typically 120–240GB compressed) capacity into a single-reel, familiar 3480 form factor. When using the StorageTek T9940B drive, this same cartridge offers 200GB (typically 400–600GB compressed) native capacity and a native transfer rate of 30MB/second.

Based on StorageTek's 9840 access-centric platform, the industry's most rapidly adopted half-inch tape technology, the 9940 system leverages many of 9840's proven media and drive components. Designed for data-intensive storage applications such as archive, backup and disaster recovery, the 9940 system includes SCSI, ESCON and Fibre Channel connectivity. With the ability to co-exist with other StorageTek drives, the 9940 system means optimum flexibility in managing multiple and existing applications.

Imation's industry-leading media technology offers superior reliability in the Black Watch 9940 cartridge, including proprietary backcoating for durability and servo writing for precision tracking. The 9940 cartridge is the first 200GB enterprise class cartridge available. And because of Imation's co-development with StorageTek, 9940 media and drives are perfectly matched to meet your capacity-intensive data storage needs.

For those who value capacity plus performance, multiple connectivity options and a low cost of ownership, T9940 capacity-centric technology is the solution.



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Physical Characteristics	When used in a T9940B drive	When used in a T9940 drive
Capacity	200GB uncompressed	60GB uncompressed
Durability (Long Length)	180 full-file writes/reads (36 terabytes) 6,500 passes	180 full-file writes/reads (21.7 terabytes) 6,500 passes
Magnetic Characteristics		
Coercivity	1625 ± 75 Oersteds (130 ± 6.0 KA/m)	1625 ± 75 Oersteds (130 ± 6.0 KA/m)
Cartridge Mechanical Characteristics		
Size (overall cartridge)	L x W x H: 4.92 in. x 4.29 in. x 1.00 in. (125mm x 109mm x 25.4mm)	L x W x H: 4.92 in. x 4.29 in. x 1.00 in. (125mm x 109mm x 25.4mm)
Weight	9.17 oz. nominal (260g)	9.17 oz. nominal (260g)
Cartridge Performance		
Number of Tracks	576 data tracks	288 data tracks
Track Following Servo	Factory prerecorded Caution: Do NOT bulk erase cartridges.	Factory prerecorded Caution: Do NOT bulk erase cartridges.
Tape Speed	134 ips r/w, up to 440 ips search (3.4 m/s r/w, up to 11 m/s search)	80 ips r/w, up to 440 ips search (2 m/s r/w, up to 11 m/s search)
Drop Test	Suitable for use after a drop of up to 39.4 in. (1m)*	Suitable for use after a drop of up to 39.4 in. (1m)*
Load/Unload	10,000 load/unloads	10,000 load/unloads
Error Characteristics		
Permanent Errors	Zero	Zero
Archival Lifetime	15–30 years	15–30 years
Environmental Recommendations		
Operating Conditions	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	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
Storage Conditions (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	40°F to 90°F (-5°C to 32°C) 5% RH to 80% RH 78°F (26°C) wet bulb maximum
Optimal Archival Condition (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	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
Transportation Conditions	-10°F to 120°F (-23°C to 49°C) 5% RH to 80% RH 78°F (26°C) wet bulb maximum	-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 from ordinary use. WARRANTY IS VOID IF MEDIA INFORMATION REGION (MIR) IS OVERWRITTEN OR CORRUPTED. IMATION SHALL NOT BE LIABLE FOR ANY INDIRECT, SPECIAL, INCIDENTAL, OR CONSEQUENTIAL LOSS OR DAMAGE (INCLUDING WITHOUT LIMITATION DAMAGES FOR LOSS OF PROFITS, SAVINGS OR DATA) IN ANY WAY RELATED TO THE PRODUCT. This does not preclude claims for personal injury. Some states or countries do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state or country to country.