



Blu-ray

Blu-ray, also known as Blu-ray Disc (BD) is the name of a next-generation optical disc format. The format was developed to enable recording, rewriting and playback of high-definition video (HD), as well as storing large amounts of data. Blu-ray technology utilizes a 405nm (nanometers) blue laser to decrease the size of data pits. In addition, the recording layer of Blu-ray media is placed very close to the disc surface. These design features allow the capacity of a Blu-ray disc to be increased to 25GB (single layer). Because the data lies so close to the disc surface, Verbatim's proprietary super hard coating is applied on top of the recording layer to protect important data from rough handling.



Blu-ray has three different formats:

- BD-ROM for read-only discs (similar to DVD-ROM)
- BD-R for write-once discs (similar to DVD-R)
- BD-RE for rewritable discs (similar to DVD-RW)

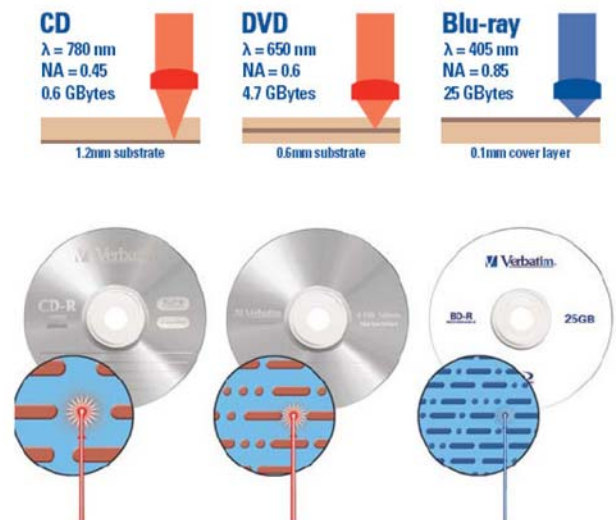


What are BD discs used for?

The applications for BD products span the entire storage spectrum--Data, Audio, Photo and Video storage. They include personal and professional video production, personal and business storage, backup, archiving, radio and television broadcast storage, education, healthcare and government applications.

Why is high-definition better than DVD?

Standard definition (SD), the video most of us are used to seeing on our TVs today, has up to 480 visible lines of detail, whereas high-definition video has as many as 1,080. With 5 times the resolution of normal television, high definition video looks sharper and clearer than regular video. Consumers will also benefit from other improvements over current DVD technology including enhanced menu navigation, increased capacity for bonus features and new interactive capabilities.





Who promotes Blu-ray?

Blu-ray, comes from a group of companies--the Blu-ray Disc Association (BDA), led by Sony, Dell, Hewlett-Packard, Hitachi, LG Electronics, Matsushita Electric Industrial (Panasonic), Mitsubishi Electric, Philips Electronics, Pioneer Electronics, Samsung Electronics, Sharp, TDK, and Thomson Multimedia. Verbatim/MKM is a member of the BDA.

Do Blu-ray discs require a cartridge?

To protect the cartridge-free BD media from scratches, fingerprints and dust particles which can cause recording and playback errors, Verbatim BD discs have the added protection of a cover layer and a proprietary hard-coat finish. Similar to the surface coating technology found in touch panel displays and the lenses of plastic glasses, the hybrid organic/inorganic coating technology developed by MKM protects the recording layer without warping the disc.

Will Blu-ray be backwards compatible with DVD?

Players and discs of both formats can be backwards compatible with DVD; however, it's really up to each manufacturer to decide if they want to make their products backwards compatible with DVD. Just as DVD hardware supports both CD and DVD, most of the new hardware is expected to support DVD and BD. Several leading consumer electronics companies (including Sony, Panasonic, Philips, Samsung, Pioneer, Sharp and LG) have already demonstrated products that can read/write CDs, DVDs and Blu-ray discs using a BD/DVD/CD compatible optical head.

How does Verbatim/MKM differentiate its BD media?

Widely recognized for differentiating its products by developing innovative technologies and advanced, state-of-the-art manufacturing processes, Verbatim followed this proven formula when it developed its new BD-R and BD-RE media.

To maximize the performance, recording capacity and reliability of Verbatim brand BD-R media, MKM developed a new recording layer, with an exceptionally wide power margin. This ensures a low error rate across the entire surface of the disc, regardless of drive power fluctuations or smudges on the disc surface. An inorganic metal nitride compound film was used as a recording layer because its characteristics are substantially more stable than pure metals. As a result, the new proprietary recording layer provides a storage lifetime that matches Verbatim media produced with its highly reliable AZO organic dye layer.

Leveraging decades of spin coating experience, Verbatim/MKM uses a unique ultra-precise spin coating process and materials to apply the cover and hard-coat layers. Also, the cover layer and hard-coat layer materials have the capability to ensure highly reliable surface protection against smudges, dust, and fingerprints as well as scratches.