



VIDEO MEDIA GUIDES -> Blank media quality guide & FAQ

>>>> Blank DVD media quality guide

Be sure to visit the main guide page located at www.digitalFAQ.com/media
This page is also [available in French](#)

Not all media is good. In fact, with the high influx of cheap media from Taiwan, China and Hong Kong, I'd venture to say most media is bad. This review guide is meant to shed some light on who manufactures and brands good and not so good quality DVD media.

Use this list as an assistant when selecting what media to buy and use. It shows what generally works as the best media. Individual results may vary, depending on the burner and how the media chooses to cooperate, though typically not by much. Read the advanced topics guide after becoming familiar with the basics presented on this page.

While some cheap media may work for you, it's a gamble that often loses. Try to use 1ST and 2ND class media, and to avoid 3RD and 4TH class media, if at all possible.

Who makes the disc: Brand vs. Media ID

The thing that must be realized is that most media is produced by a relative small number of factories, located in several different places. These factories are mostly present in Taiwan, Japan, Singapore, Hong Kong, China, India, some European locations. There are more, but those are the largest ones. The best media generally comes from Japan and Singapore. The worst typically comes from Taiwan or China (in stores) and Hong Kong (online).

This being said, understand that the media **brand** means nothing. Apple is a great brand, but they do not make their own discs, instead outsourcing to MXL (Hitachi/Maxell) or MCC (Mitsubishi Chemicals). Verbatim became infamous in 2002 by switching from high-quality MCC ID media to the inferior CMC ID media, although they quickly returned to using MCC. Companies like Memorex, Fuji and Imation all outsource to media vendors. When buying media online always be aware of fake media too (see the fakes information farther down the page).

It is the **media ID** that is important, as it reveals the disc manufacturer. Unfortunately, this is not written on packaging or anywhere else. Companies want consumers to be oblivious to this sort of behind-the-scenes information. To learn the media ID code, a blank disc must be put into a computer DVD burner drive and the ID read by a special utility. Some burning software reads the code by default (DVD Decrypter, for example, in ISO write mode). There are also a handful of freeware or trialware tools available:

For Windows: [DVD Identifier](#) (free), [DVDInfo](#) (free), [DVDInfoPro](#) (trial)

For Macintosh OS X: [DVD Media Inspector](#) (free)

For Linux: [dvd+rw-mediainfo](#) (free)

Media ID Quality Guide

- (1) The following list is in preference order. The best discs are near the top of the list. The discs at the bottom of the list are suitable only for a landfill. PVC is the best of all, WFKA is the worst of all.
- (2) Some companies may have listings in different classes because quality is better/worse in other disc formats.
- (3) Some long media IDs have been abbreviated, and some RW/RAM codes have been left off the list (too many to list). The "media ID" column is mostly intended for showing the DVD-R and DVD+R codes.
- (4) Feel free to use the CONTACT US link at the top of the page, to submit new media IDs or ID corrections.

1ST CLASS MEDIA:

Almost flawless burns with 95-100% reliable results. These discs are suited for pretty much anything. They will usually serve as excellent archival quality media, as well as video masters. These discs are often the most expensive DVD media, so be sure to take advantage of sales, when available. (Trivia: The 5 best discs ever created are probably PVC001001, PVC001002, MXLRG02, MCC00RG20 and YUDEN000T02, with exceptional quality burns.)

MEDIA ID	MANUFACTURER	COUNTRY	FORMAT	NOTES
----------	--------------	---------	--------	-------

PVC001001, PVC001002, PVCW00	Pioneer	Japan	DVD-R, DVD-RW	PVC stopped making media in 2003
MCC00RG20, MCC01RG20, MCC02RG20, MCC03RG20, MCC002, MCC003, MCC004, MCC00RW, MCC01RW, MCCA01, MKMA02, MKM001, MKM003	Mitsubishi Chemicals, Mitsubishi-Kagaku Media, Verbatim	Singapore, Taiwan, India	DVD-R, DVD-RW, DVD+R, DVD+RW, DVD+R DL, DVD-R DL	some outsourcing
TYG01, TYG02, TYG03, YUDEN000T02, YUDEN000T03	Taiyo Yuden	Japan		
MXLRG01, MXLRG02, MXLRG03, MXLRG04, MAXELLO01, MAXELLO02, MAXELLO03	Hitachi Maxell	Japan	DVD-R, DVD-RW, DVD+R, DVD+RW, DVD-RAM	
SONY04D1, SONY08D1, SONY16D1, SONYD21, SONYD11, SONYS11,	Sony	Taiwan, Japan	DVD-R, DVD+R, DVD-RW, DVD+RW	some outsourcing
TDKG02, TTG01, TTG02, TTH01, TTH02, TDK501, TDK502, TDK001, TDK002, TDK003	TDK	Taiwan	DVD-R, DVD-RW, DVD+R	

2ND CLASS MEDIA:

Decent discs, though not perfect, about 80-95% success rate. These discs are not suggested for archival data or video masters. These are best suited for data that can be replaced easily, such as secondary backups or data/video distribution. In bulk, these tend to be less expensive than 1ST CLASS media.

MEDIA ID	MANUFACTURER	COUNTRY	FORMAT	NOTES
RICOHJPN00, RICOHJPNR00, RICOHJPNR01, RICOHJPNR02, RICOHJPNR03, RICOHJPNW01, RICOHJPNW11, RICOHJPNW21	Ricoh, Ritek	Taiwan, Japan	DVD+R, DVD+RW, DVD+R DL	some outsourcing
PRODISCS03, PRODISCS04, PRODISCF01, PRODISCF02, PRODISCR01, PRODISCR02, PRODISCR03, PRODISCR04, PRODISCG02, PRODISCW02	Prodisc Media	Taiwan	DVD-R, DVD+R	
DAXON008S, DAXON016S, DAXONAZ1, DAXONAZ2, DAXONAZ3, DAXOND42	Daxon (Acer+BenQ)	Taiwan	DVD-R, DVD+R, DVD+RW	similar to Sony media
RITEKG01, RITEKG03, RITEKG04, RITEKG05, RITEKW01, RITEKW04, RITEK000, RITEKR01, RITEKR02, RITEKR03, RITEKR04, RITEKF1	Ritek	Taiwan	DVD-R, DVD-RW, DVD+R, DVD+RW	reflectivity and degradation concerns
MBI01RG20, MBI03RG40	Moser Baer	India	DVD-R	variation of MCC media
FUJIFILM02, FUJIFILM03	Prodisc, Ritek, CMC, others	Taiwan	DVD-R, DVD+R	outsourced media ID
OPTODISCK001, OPTODISCR004, OPTODISCR008, OPTODISCR016, OPTODISCW002, OPTODISCW004	Optodisc	Taiwan	DVD-R, DVD-RW	
INFODISCA01, INFODISCA10, INFODISCR20, INFODISCR01	Infodisc Media	Taiwan	DVD-R, DVD+R, DVD+RW	

3RD CLASS MEDIA:

Quality can be very questionable, about 50-80% success rate. These are discs best suited for small burns (under 2GB of data). Be prepared for failed burns. Also be prepared for various DVD-ROMs and players to not see the disc or freeze up because the player cannot read it very well (not the same as a bad burn). Many of these are known for sham marketing ("archival grade" and whatnot) and can actually cost more than 1ST or 2ND CLASS media.

MEDIA ID	MANUFACTURER	COUNTRY	FORMAT	NOTES
CMCMAGD01, CMCMAGE01, CMCMAGF01, CMCMAGM01, CMCMAGR01	CMC Magnetics	Taiwan	DVD+R	wide quality variance

PHILIPSCD2, PHILIPS010, PHILIPS041, PHILIPSC08, PHILIPSC16, PHILIPSRW	CMC Magnetics	Taiwan	DVD+R, DVD+RW, DVD+R DL	outsourced media ID
RITEKD01	Ritek	Taiwan	DVD+R DL	layer break issues
LEADDATA01, LEADDATA, LD01, LD, LDS03, LDA02	LeadData	Taiwan	DVD-R, DVD+R	
MUST001, MUST003	Unknown	Taiwan	DVD-R	
MBI, MBIPG101R03, MBIPG101R04, MBIPG101W03, MBIPG101W04	Moser Baer	India	DVD-R, DVD+R, DVD+RW	poor firmware support
BEALLG00001, BEALLG40001, BEALL000P40, BEALL000PG0	Samsung/BeAll	Taiwan	DVD-R, DVD+R	degradation concerns
GSC001, GSC002, GSC003, GSC502	Gigastorage	Taiwan	DVD-R, DVD+R	
MAM4XG02, MAM8XG01	MAM-America, MAM-Europe	USA, Europe	DVD-R	remnants of Mitsui Media
ONIDTECH	UI Tran Technology	Taiwan	DVD-R	no longer made
PRINCO	Princo	Taiwan	DVD-R, DVD-RW	
INFOMER20, INFOMER30, INFOMEDIAT01	InfoMedia	Taiwan	DVD-R, DVD+R, DVD-RW, DVD+RW, DVD+R DL	

4TH CLASS MEDIA:

Pathetic garbage media, landfill material, about 0-50% success rate. These discs are pretty much only suited for preventing drink cup rings from forming on a table. Most of the time, these are ready-made coasters. If you can actually get a burner to acknowledge the disc, do not expect much. And if the burn actually succeeds, do not be surprised if a DVD-ROM or player chokes on the disc (read/play errors). Cheap prices, cheap junk quality.

MEDIA ID	MANUFACTURER	COUNTRY	FORMAT	NOTES
CMCMAGAE1, CMCMAGAF1, CMCMAGAM3, CMC00RG20, CMC00RG30, CMCMAG, CMCW02, CMCW03, CMCMAGW01	CMC Magnetics	Taiwan	DVD-R, DVD-RW, DVD+RW	wide quality variance
OPTODISCP01, OPTODISCP02, OPTODISCP04, OPTODISCR04, OPTODISCR08	Optodisc Media	Taiwan	DVD+R, DVD-RW	
DAXONAZ1, DAXONAZ2	Daxon (Acer+BenQ)	Malaysia	DVD+R	inferior to Taiwan
POMS3A, 3AMO	3A Media	Austria	DVD-R	poor firmware support
NANYACLX, NANYAA01	Nanya Tech	Taiwan	DVD-R, DVD+R	
PLASMON1C01	Plasmon Tech	Europe	DVD-R	
AML, AML001, AML002	Advanced Media Ltd	Taiwan	DVD-R	
LONGTEN001, LONGTEN002	Jilin Qingda (??)	China	DVD-R	
YIJHAN001	Yi Jhan Tech	Taiwan	DVD-R	
AN31, AN32, AN33, AN35, ANWELL	Anwell	China	DVD-R	see note **
INFOSMART01, ISO001, ISO002	Infosmart	China, Hong Kong	DVD-R, DVD+R	the #1 supplier of fake media
SKCCOLTD	SKC	Korea	DVD-R	
VANGUARD, VDSPMSAB01, VDSPSAB	Interaxia AG	Taiwan	DVD-R	
UME001	Ume Disc Tech	Hong Kong	DVD-R	

WFK11	WealthFair Investments	China	DVD-R	
-------	------------------------	-------	-------	--

** Anwell Technologies does not make media. Anwell is a production equipment supplier that sells blank DVD media creation technology to media manufacturers. By default, an ANWELL "test code" or "test ID" is on the stamper. Anwell is often blamed for making shoddy media, but in reality, it's the work of a lazy media manufacturer who bought Anwell production supplies. As with all other low-quality media of dubious origins, the likely offender is Infosmart, or some other small Chinese or Hong Kong company. **

GRADING NOTES:

- **Grading criteria.** The review list presented here is a delicate balance between the adjacent concepts of usability and potential burn quality. The ability of the disc to burn in a wide range of burners and DVD recorders determines a coaster count. However, because of disc/drive incompatibility issues that exist (read the advanced concepts guide), potential quality on a perfect disc/drive combination is also considered. Finally, longevity and playability/reflectivity is taken into consideration. This results in the overall grade. This guide is admittedly harsh when it comes to the usability factor, but it need be remembered that this was written to assist the masses, so a disc with generally poorer disc/drive compatibility will rate lower. Feel free to contact us if you want specific suggestions for your make/model of drive.

- **What do the % numbers mean?** This list is constructed from many tests on many burners from a handful of experienced people that use a lot of media. These numbers reflect the number of discs in a spindle that will give good results. For example, out of a 100 spindle of media, 1st class discs may kick out a few bad discs (0% to 5% of the media may have playback imperfections or be outright bad burns). The 2nd class media may have a dozen or so bad discs. The 3rd class discs could give you a half-spindle of duds. And the 4th class stuff can be pure trash. These are *mean averages* too, simple statistics math, meaning best tests and worst tests are discarded, and the middle range of tests is the basis for these numbers. You may sometimes find the rare instance where a CMC spindle will be perfect and a Taiyo Yuden spindle will be completely flawed, but those times are the exception rather than the rule (and are not part of a mean average).

- **Can media ever change class?** Sure. But it rarely happens. It is not a quick move either, these things take much time and many tests. SONY, RITEK, CMC, DAXON and LEADDATA have changed grades in the past. Media cannot change quality overnight or even in a few weeks/months.

- **Testing procedures:** Burns are subject to playability/reflectivity tests (usage tests), as well as software verification. Test equipment is under controlled hardware/software environments, and performed by knowledgeable individuals, to eliminate user variables. Burns are at least 4GB or more to test the entire length of the media.

Fake DVD Media ID Guide

Luckily, it does not happen often, but it does happen often enough to be a major annoyance to media buyers everywhere. Most fake media comes from Hong Kong, as a general rule. Fake media tends to float around Europe and Asia more than it does the USA. Fake media is normally sold in flea markets, on eBay and online. Major brand name media sold in stores is probably never going to be fake.

MEDIA ID	FAKER	DATE	NOTES
TYG02	Infosmart, Optodisc, MAM-America, MAM-Europe	2005-2006	The fakes are rumored to be for "improved 8x media detection" but low quality media is low quality, regardless of the media ID. These were found worldwide.
MCC02RG20, MCC003	Infosmart	2005	Mostly seen in Europe, not so much in USA.
TTG02, TTH01, TTH02	MAM-America, MAM-Europe	2005	These are apparently "legal" fakes made by Mitsui, with permission by TDK to use the code. However the media is quite poor, not true TDK media.
MXLRG01	Infosmart	2002-2003	One of the first "anonymous" fake discs.
Pioneer brand DVD-R	LeadData, Ritek	2003	Pioneer's PVC quit manufacturing blanks in 2003 (PVC media codes). LeadData and Ritek tried to sell their PIODATA and PIO branded blanks under the "Pioneer" brand name, but that was misleading.
TDKG02	Princo	2001-2002	They wanted to "improve 2x writing" on the 1x write strategy media, as well as insure drives would see the media (not all firmware at the time had PRINCO as a valid media code). Princo admitted to this faking, never tried to hide it, though some resellers tried to pawn off the media as legitimate TDK.
SONY	Unknown	2003	"SONY" is not a valid media ID used by Sony discs.
RITEKG03, RITEKG04	Ritek	2004	This was <i>supposedly</i> faked in 2004. However, it is the opinion of this author that it was just a lame cover story by RITEK for providing subpar

quality media, as even the "legit" media performed poorly at the time.

Branding Guide

Although this will change on a regular basis, the following brands are known to use the following media makers for their outsourced discs. Some companies prefer dollars over quality, so be careful. Also be especially careful of "house brands" or no-names. Stores like Fry's and CompUSA have horrible return policies too, so if you end up with an unfavorable media ID, do not burn a test, just take it back for a refund and take your business elsewhere.

This branding information needs more 2006 updates. Please submit to this guide if you can.

BRAND	LAST KNOWN MANUFACTURERS	PREVIOUS MANUFACTURERS
Accu	LeadData	
Americal	Ritek, Princo, LeadData	
Apple	Mitsubishi	Maxell
Arita	Ritek, Ricoh(Ritek)	
BenQ	Daxon	Fujifilm
Bulkpaq	FAKES/Infosmart, Infosmart, CMC	Princo
CompUSA	Princo, UME Disc	AML, Optodisc
Datawrite	MCC, Ritek, CMC	Princo, Prodisc, Anwell
DupEZ	LeadData	
Dynex	Ricoh	
Emtec	Ricoh	FAKES, Interaxia AG
ESA	CMC	
Esbuy	Ritek, LeadData	FAKES
Fuji	Prodisc, Fujifilm, Mitsubishi(-RW), Daxon, Ritek(DL), Ricoh(DL), CMC(DL)	Taiyo Yuden, Ricoh, Ritek
GQ, Great Quality	Sony	Princo, Ritek, LeadData, Ume Disc, Infodisc
HP	CMC	Ricoh, Mitsubishi, Fujifilm
Hyundai	FAKES, Infosmart	
Imation	Optodisc, CMC	Mitsubishi, Ritek, Ritek, Fujifilm, Ricoh, Moser Baer
Intenso	Mitsubishi	
Iomega	Prodisc	
JVC	Wealthfair Investments	
KHypermedia	CMC, MCC	TDK
Kodak	MAM-America	
LiquidVideo	Optodisc	
Magnavox	CMC	
Matrix	Longten, Yi Jhan Tech, Must	
Maxell	Maxell, Ritek, CMC, Prodisc	Ricoh, Taiyo Yuden
ME	Gigastorage	
Memorex	CMC, Ritek, Moser Baer	Mitsubishi, Prodisc, Ricoh, Infodisc, Moser Baer
Meritline	various 4th class discs	
Mirror	Anwell, Onidtech	Princo
MMore	Moser Baer	
MultiLaser	FAKES	

Nexxtech	UME Disc, Adv Media Ltd	Mitsubishi, CMC
Nipponic	Interaxia AG	
Octron	Ritek	
Office Depot	Ritek	
OfficeMax	Princo	
Optodisc	Optodisc	
Panasonic	Taiyo Yuden	
Philips	CMC, Philips	Mitsubishi
Phoenix	Infosmart	
Pioneer	Pioneer	
Playo	Ume Disc, Advanced Media Ltd	
Powerdisc	Optodisc	
Princo	Princo	FAKES(TDK ID)
Prodisc	Prodisc	Mitsubishi (outsource ID)
Radius	Optodisc	
Ridata, Ritek	Ritek, Ricoh	
Rivision	MCC	Ritek, Ricoh, Optodisc, CMC, TDK, Prodisc
Samsung	Optodisc	BeAll
SKC	SKC	
Smartbuy	Prodisc	
Sonic, Shop4tech	various 4th class discs	
Sony	Taiyo Yuden, Sony	Ricoh, Mitsubishi
Staples	CMC	
Supermedia, Linkyo	various 4th class discs	
TDK	TDK, CMC, Moser Baer, Philips	Taiyo Yuden, Ritek, Ricoh, Maxell
Teon	CMC	Mitsubishi
Tesco	UME Disc, Advanced Media Ltd	
Traxdata	Ritek	
Verbatim	Mitsubishi, Taiyo Yuden (Europe)	CMC, Ricoh, Ritek
WinData	FAKES, Ume Disc	

If you can add to this branding list, use the CONTACT US feature and give us the info.

For unusual brands and media IDs, check out the videohelp.com DVD media list or cdfreaks.com media forum. In most cases, unknown media IDs are of dubious quality. Some unknown brands are overstock from other media manufacturers. This is often the mark of very cheap media. Buyer beware.

GUIDE COPYRIGHT 2002-2006 DIGITALFAQ.COM - visit www.dvdguides.org for more guides